

Annual Environmental Management Report

Banksmeadow Transfer Terminal

June 2018



QUALITY INFORMATION

Prepared by:



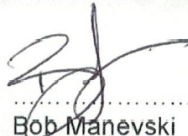
.....
 Sara Maddison
 Operations Project Manager
BE(Civ), BE(Env)

Reviewed by:



.....
 Ramona Bachu
 Systems and Quality Assurance Manager
BSc, GradDip, MEEM, DipPM

Authorised by:



.....
 Bob Manevski
 Facility Manager

Address:

Veolia Australia and New Zealand
 Cnr Unwin and Shirley Streets
 Rosehill, NSW 2142

Status:

FINAL

Document Revision Register

Rev	Revision Details	Issued to	Date
0	Draft for internal review	<ul style="list-style-type: none"> Veolia NSW Resource Recovery Team Veolia NSW SHEQ Team 	19 June 2018
1	Final	<ul style="list-style-type: none"> NSW Department of Planning and Environment Veolia NSW Resource Recovery Team (Internal Copy) Veolia NSW SHEQ Team (Internal Copy) 	28 June 2018

Contents

Quality Information	2
Definitions/Abbreviations.....	4
Executive Summary.....	5
Section 1 Introduction	8
1.1 Site Background	8
1.2 Legislative Requirements	8
1.3 Responsibilities	9
Section 2 Environmental Monitoring and Management	11
2.1 Terminal Monitoring Requirements	11
2.2 Air Quality.....	14
2.3 Water Monitoring	16
2.4 Noise and Vibration	19
2.5 Traffic	21
2.6 Waste	22
2.7 Pests and Vermin	24
Section 3 Environmental Performance	26
3.1 Previous Non-Compliance and Findings	26
3.2 Current Findings and Voluntary Improvements	28
3.3 Other Regulatory Interactions.....	29
3.4 Complaints	30
3.5 Conclusion.....	30
References.....	32
Appendices.....	33
Appendix A - Site Layout Plan	33
Appendix C – EPA Stormwater Update Letter	35
Appendix D – SLR Noise and Vibration Compliance Assessment Report	36
Appendix E – Pest Control Records	37
Appendix F –Photos of Waste Shed Modification Works.....	38
Appendix G – BTT Complaints Register	39
Appendix H –Veolia’s Odour Feedback Register.....	40

DEFINITIONS/ABBREVIATIONS

AEMR	Annual Environmental Management Report
ALS	Australian Laboratory Services Pty Ltd
AQMP	Air Quality Management Plan
BoM	Bureau of Meteorology
BTT	Banksmeadow Transfer Terminal
CEMP	Construction Environmental Management Plan
DA	Development Application
DPE	Department of Planning and Environment
EIS	Environmental Impact Statement
EMP	Environment Management Plan
EP&A	Environmental Planning and Assessment (Act and Regulations)
EPA	NSW Environment Protection Authority
EPL	Environment Protection Licence
E2W	Earth2Water Pty Ltd
NIMS	National Integrated Management System
NMP	Noise Management Plan
OEMP	Operational Environmental Management Plan
PIN	Penalty Infringement Notice
RAP	Remediation Action Plan
SWLMP	Soil Water and Leachate Management Plan
The Consent	Development Consent SSD 5585
TMP	Traffic Management Plan
TOU	The Odour Unit Pty Ltd
The Terminal	Banksmeadow Transfer Terminal
The Vault	Veolia's Incident and Compliance Management System
TPA	Tonnes per annum
Veolia	Veolia Australia and New Zealand
WHS	Work Health and Safety (Act and Regulation)
WMP	Waste Management Plan

EXECUTIVE SUMMARY

This Annual Environmental Management Report (AEMR) 2017-2018 is the 3rd report prepared to detail the environmental performance of the Banksmeadow Transfer Terminal (the Terminal), owned and operated by Veolia Australia and New Zealand (Veolia). This AEMR covers the period of 29 April 2017 to 28 April 2018 (2017-2018 reporting period).

Veolia has prepared this AEMR in accordance with Schedule 4, Condition 8 of Development Consent SSD 5585 (the Consent), as well as relevant legislative requirements and industry best practices.

This AEMR provides a summary of environmental monitoring conducted at the Terminal, non-compliance against the Consent identified during the 2016-2017 reporting period, as well as the corrective actions, where implemented to address the non-compliance and other findings.

No non-compliances were identified against the Conditions of the Consent (hereby referred to as the Consent Conditions) during this reporting period, however subject to requirements under the Terminal's Environment Protection Licence (EPL) 20581, issues around air quality and water quality were noted. As a result, a number of onsite operational adjustments were undertaken to improve the environmental performance of the Terminal. These adjustments were corrective actions resulting from site investigations, complaints, regulatory feedback, as well as Veolia's internal assurance program. These are summarised in the table below. Further details are provided in Section 4.1 of this AEMR.

Finding	Recommendation	Corrective Action	Status
Evidence of stormwater backflow from off-site sources at EPL Monitoring Point 1	Implement an interim stormwater monitoring strategy to obtain samples representative of stormwater quality at the Terminal.	Collect manual samples from the nearest accessible points upstream of EPL Monitoring Point 1.	Completed March 2018.
	Liaise with the Terminal's construction contractor (Lipman) to rectify defect and/or modify stormwater drainage line to eliminate ingress of off-site stormwater at Monitoring Point 1	Report defect to building contractors. Lipman to rectify defect and/or modify stormwater drainage line to eliminate stormwater ingress from off-site sources.	Defect Report submitted May 2018. Rectification works will be undertaken in the next reporting period.
A total of 48 odour complaints were received at the Terminal.	Minimise potential fugitive odour emission release from the waste shed at the Terminal.	Sealing of the eastern and southern breezeways of the waste shed.	Completed February 2018

REPORT

Annual Environmental Management

		Sealing up of the gap opening between the interface of the waste shed floor and compactor pit area.	Completed April 2018
	Evaluation of the efficacy of the activated carbon filter system installed on the ventilation louvre of the waste storage container	Additional carbon pad filter (two in total) to be installed in the ventilation opening of all waste containers. Increase the replacement frequency of carbon filters in all waste containers from annual to 6-monthly.	Completed April 2018
	Conduct operating and maintenance works of the fan extraction system to ensure	Optimisation and service works on the two fan modules.	Completed May 2018
		Clean up service of the air extraction plenum chamber and optimisation of the extraction duct louvres by an external contractor.	Completed May 2018

Section 1

Introduction

SECTION 1 INTRODUCTION

1.1 Site Background

The Terminal is located at 14 Beauchamp Road and 34-36 McPherson Street, Banksmeadow and is identified as: Lots A & B, DP 366725 and Lot 1, DP 435497 owned by Keith Engineering (34-36 McPherson Street); and part of Lot 2 DP 100686 (14 Beauchamp Road) owned by Asciano (Pacific National). A site layout and location plan is provided in **Appendix A**.

The Terminal was granted approval under Section 89E of the *Environmental Planning and Assessment Act 1979* (EP&A Act) on 28 April 2015 as a State Significant Development, and is approved under the Consent to receive up to 500,000 tonnes per annum (TPA) of waste from the Sydney Metropolitan Area, in accordance with the EPL.

Banksmeadow Waste Transfer Terminal commenced operations in September 2016, accepting putrescible waste from the Sydney metropolitan area, which is containerised and loaded onto rail wagons for transportation to the Woodlawn Eco Project Site (owned and operated by Veolia) in the Southern Tablelands (approximately 250 kilometres southwest of Sydney) for treatment, recycling and energy recovery.

1.2 Legislative Requirements

The main legislative instruments governing the environmental performance and activities undertaken at the Terminal include the EP&A Act regulated by the Department of Planning & Environment (DPE), and the *Protection of the Environment Operations Act 1997* (POEO Act) regulated by the Environment Protection Authority (EPA), as well as their respective associated regulations.

In addition to the Consent, an EPL has been issued by the EPA, under the POEO Act, to regulate the operational activities conducted at the Terminal.

Consent Conditions stipulate the requirements that need to be addressed to maintain compliance at the Terminal, and those relevant to the preparation of this AEMR are provided in Table 1-1.

Table 1-1 - Consent Conditions for the preparation of this AEMR

Relevant Condition	Requirement
SCHEDULE 4 – ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING	
Annual Review	
8	<p>Within one (1) year of the date of this consent, and every year thereafter, the Applicant shall review the environmental performance of the development to the satisfaction of the Secretary. This review must:</p> <ul style="list-style-type: none"> (a) describe the development that was carried out in the previous calendar year, and the development that is proposed to be carried out over the current calendar year; (b) include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, which includes a comparison of these results against: <ul style="list-style-type: none"> • the relevant statutory requirements, limits or performance measures/criteria; • the monitoring results of previous years; and • the relevant predictions in the EIS; (c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance; (d) identify any trends in the monitoring data over the life of the development; (e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and (f) describe what measures will be implemented over the current calendar year to improve the environmental performance of the development.

1.3 Responsibilities

- Environmental monitoring during the operational stage of the Terminal was undertaken and/or supervised by NSW Resource Recovery technical support personnel – Sara Maddison (Operations Project Manager – Resource Recovery).
- Analyses of samples were performed at Australian Laboratory Services Pty Ltd (ALS), which is a NATA accredited laboratory.
- The Odour Unit Pty Ltd (TOU) was appointed to conduct odour audits for the Terminal.
- SLR Consulting conducted an operational noise and vibration assessment in September 2017.

Section 2

Environmental Monitoring and Management

SECTION 2 ENVIRONMENTAL MONITORING AND MANAGEMENT

2.1 Terminal Monitoring Requirements

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

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 conducted at the Terminal as per the Environmental Monitoring Program.

Table 2-1 Operational Monitoring Requirements

Condition Ref	Type of Monitoring	Frequency	Commentary
Schedule 3 Conditions 36, 38, 40, 41	Meteorological monitoring	As required	Ongoing basis
Air Quality Management Plan (AQMP)	Meteorological monitoring – Wind	As required	Ongoing basis
Schedule 3 Condition 36	Visual Dust Monitoring	Daily or as required	Ongoing basis
AQMP	Odour – Site inspections	Daily or as required	Ongoing basis
Schedule 3 Condition 34	Odour Audits	Six monthly	Condition satisfied, monitoring conducted: Aug 2017 Jan/Feb 2018 Mar 2018
Soil, Water and Leachate Management Plan (SWLMP)/ EPL	Stormwater Discharge Monitoring	Daily during any discharge	Ongoing
Schedule 3 Condition 10	Groundwater Monitoring	Six monthly	Condition satisfied, monitoring conducted on: 13 Oct/22 Nov 2017

			10 Apr 2018
Schedule 3 Condition 10	Leachate Monitoring	As required	None/Not triggered
Schedule 3 Condition 27	Waste volume monitoring	Daily	Ongoing basis
Schedule 3 Condition 27	Traffic monitoring	Daily	Ongoing basis
Schedule 3 Condition 27	Traffic spot monitoring	As required	Ongoing basis
Noise & Vibration Management Plan (NVMP)	Operational noise monitoring	Six months from commencement of operations	Condition satisfied, monitoring conducted on: 9 & 10 Aug 2017
Schedule 3 Condition 38	Site Inspection and Housekeeping	Weekly	Ongoing basis
Schedule 3 Condition 21	Pest and Vermin Checks	Quarterly	Ongoing basis

2.1.1 Meteorology

Monitoring meteorological data during this reporting period provided an understanding of the ambient air (such as dust and odour) and rainfall conditions at the Terminal, which was utilised to manage environmental performance, as well as investigate potential impact to nearby sensitive receivers.

Meteorological data is downloaded from the public weather station situated at the Bureau of Meteorology (BoM) Sydney Airport site (Station ID: 066037), provided in recorded at 15 minute intervals. During the reporting period, meteorological conditions such as wind speed, wind direction and rainfall were monitored on an ongoing basis and/or when any odour complaints were received.

Wind speed and wind direction data was used to investigate and respond to odour complaints in this reporting period (refer Section 3.3) by determining the source and spread of potential odours travelling off-site, if generated from the Terminal.

A summary of daily wind speeds and wind directions at 9am and 3pm at the nearby BoM weather station is presented in Figure 2-1 and Figure 2-2. During the reporting period the 9am and 3pm the prevailing wind directions were north-westerly and south-westerly and the wind speeds were most frequently between 11 – 20 m/s.

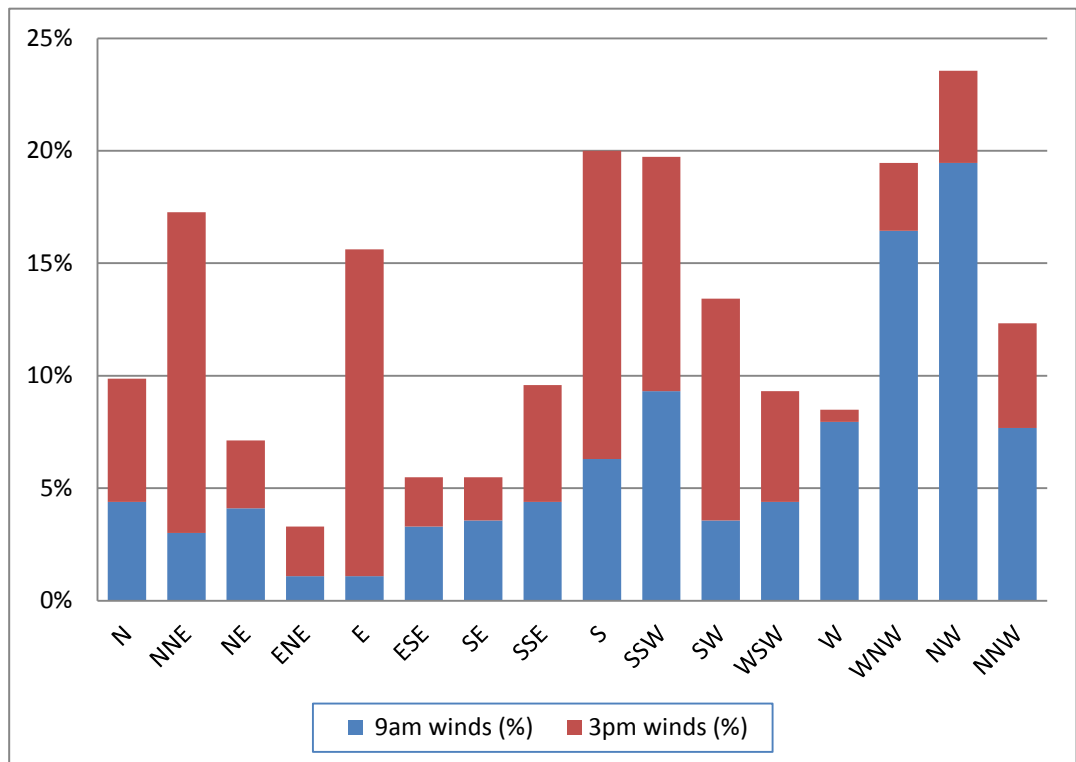


Figure 2-1 9AM and 3PM wind direction data during the reporting period

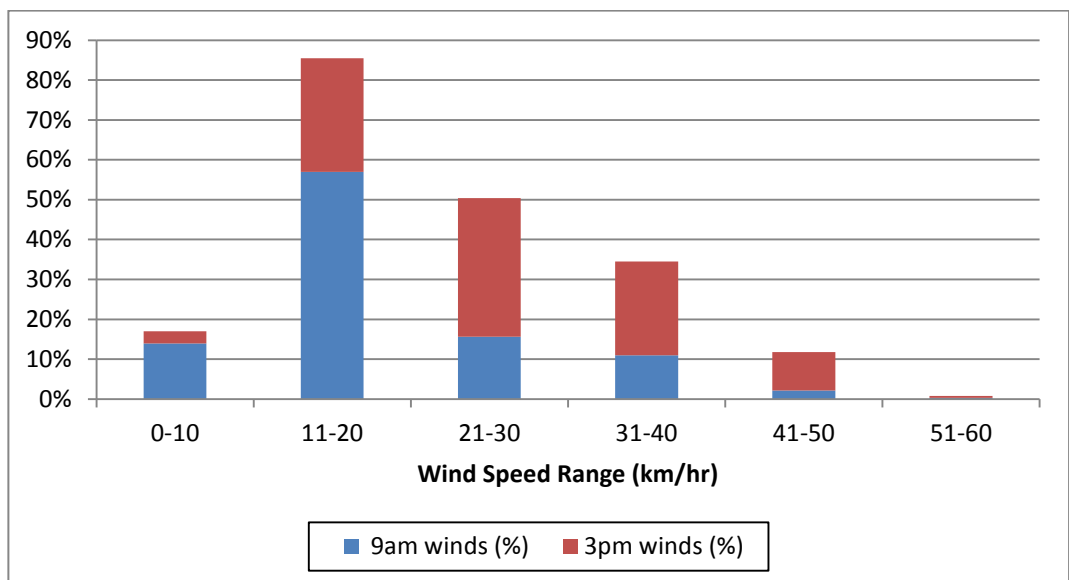


Figure 2-2 9AM & 3PM wind speed data during the reporting period

Ongoing rainfall data was monitored to supplement stormwater system operation and discharge, as well as for general housekeeping management such as inspection and maintenance of stormwater pits.

A summary of rainfall data at the Terminal during the reporting period is presented in Figure 2-3. Overall, the average rainfall for the Terminal during the reporting period was approximately 49mm per month.

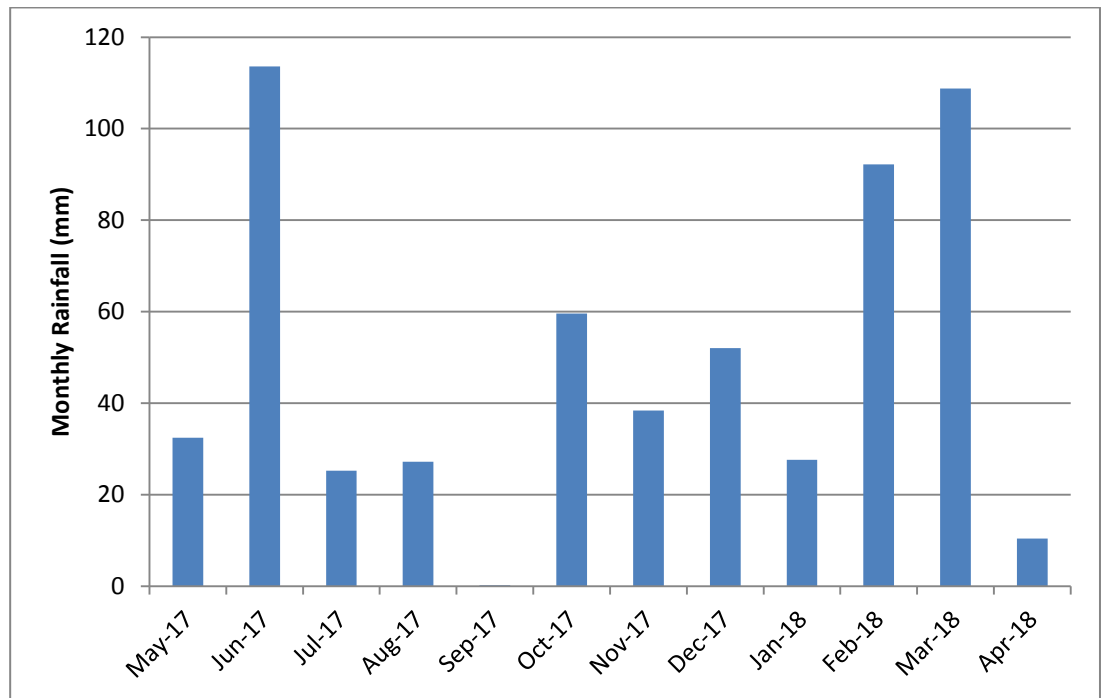


Figure 2-3 Monthly rainfall data during the reporting period

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

Potential dust impacts arising from operations at the Terminal were assessed against the EPA air quality dust emissions criteria which were identified in the *Banksmeadow Transfer Terminal Environmental Impact Statement* (EIS) prepared by Hyder Consulting Environmental (Hyder, 2004).

This EIS concluded that the key potential impact from dust associated with operations at the Terminal would likely be due to the emissions of small diameter particulate matter (PM₁₀). Despite this, the EIS found that there would be negligible impact of PM₁₀ particulates (i.e. dust) at any off-site receivers, provided that reasonable dust controls are implemented.

To facilitate this, the Terminal operates a dust suppression system within the transfer building to minimize the emissions of dust. Dust is also controlled through the

operation of a street sweeper on hardstand areas around the site. In addition, visual inspections of dust generating activities at the Terminal are also carried out on a regular basis, augmented by monitoring of weather conditions.

2.2.2 Odour

Odour emissions from the Terminal were also assessed in the EIS in accordance with the NSW EPA document *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (NSW DEC, 2005). Results of the EIS indicated that when adequate odour mitigation and management measures are in operation, odour emissions from the Terminal’s operation would be below the odour emission criteria presented in Table 2-2. It was also found that odour impacts are not predicted to exceed these levels at any residential receptor.

Table 2-2 Odour Emission Criteria

Pollutant	Receptor	Criterion
Odour	Residential Receptors	2 Odour Units

To achieve the odour emission criteria, the Terminal operates an air extraction system within the terminal 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 air exhaust vents.

Routine odour monitoring is carried out in the form of weekly odour assessments along the Terminal’s site boundaries which are conducted by on-site personnel, the results of which are recorded on weekly housekeeping checklists.

During this reporting period, four (4) odour investigations/audits were completed at the Terminal:

1. Banksmeadow Waste Transfer Terminal Facility – Odour Audit May 2017
2. Additional Odour Investigations– August 2017
3. Banksmeadow Waste Transfer Terminal Facility – Ongoing Odour Audit and Investigation Progress Update January/February 2018
4. Odour Audit – May 2018

The results from the samples collected during the May 2018 Odour Investigation indicated that there had been a significant reduction in odour emission rate since the February 2018 Odour Audit.

Specifically, the mean odour emission rate reported in the February 2018 Report was 114,300 ou.m3/s, equivalent to an odour emission factor of 855 ou.m3/s per tonne of waste. The results obtained in May 2018 indicated that the odour emission rate has reduced by a factor of 6 times from this original value to 19,000 ou.m3/s, equivalent to an odour emission factor of 63 ou.m3/s per tonne of waste. This result indicates that the roof discharge stack is operating at optimal performance.

This outcome can be attributed to the following:

- An increase in airflow extraction and optimisation of system performance to achieve a stack exit velocity of greater than 20 metres per second (m/s);
- The improvement in the waste shed building airflow dynamics via the construction of a wall interface between the waste shed floor and compactor pit area. The construction of this wall enables an enhanced level of airflow extraction control between these two key process areas and minimises undesirable building wind effects on the waste shed building.

During the May 2018 Odour Audit, a dispersion model was set up and run by TOU to evaluate the current roof stack performance and downwind impact at elevated receptors up to 21 metres. The dispersion modelling results found that at the current roof discharge stack performance, downwind odour impacts are very unlikely at nearby sensitive receptors. The status quo is expected to be maintained under the current (and recently updated) operating and maintenance practices at the Terminal. This finding is consistent with predictions in the EIS.

This result was confirmed through a follow-up odour investigation carried out in June 2018. The odour sampling and testing results from the roof discharge stack were found to be consistently operating at a favourable odour performance over the course of a normal processing week at the Terminal. Specifically, the odour performance of the roof discharge stack is consistent with original design performance documented in the EIS, thus the Terminal is very unlikely to adversely impact the local amenity from an odour viewpoint under the measured and current operating circumstances.

Odour mitigation works completed by Veolia relating to odour management and mitigation at the Terminal are summarised in Section 3.2.

2.3 Water Monitoring

2.3.1 Groundwater Monitoring

In accordance with Schedule 3, Condition 7, biannual groundwater monitoring was conducted to assess potential impacts of operations on the groundwater quality.

Table 2-3 Groundwater Monitoring Program

Monitoring Locations	Parameters	Unit	Frequency	Sampling Method
GW1, GW2 & GW3	EC	µS/cm	Six monthly	Grab sample
	pH	pH		
	Total Dissolved Solids, TDS	mg/L		
	Ammonia	mg/L		
	BOD	mg/L		
	Water Level	M		

Groundwater monitoring was conducted at three wells (GW1, GW2 and GW3) in October/November 2017 and April 2018. Groundwater monitoring results are provided in **Appendix B**.

Groundwater levels were between 1.2 m and 2.9 m (depth to water in metres) indicative of the shallow water table at the site. Ammonia and BOD concentrations were relatively low and ranged between 0.13 - 1.38 mg/L and <2 – 8 mg/L respectively. Groundwater quality results at all wells were consistent with baseline levels indicating no potential impacts of site operations on groundwater quality.

2.3.2 Surface Water Monitoring

Stormwater discharge monitoring is conducted at the Terminal to determine whether stormwater flowing offsite could be contaminated as a result of operations at the Terminal. Stormwater monitoring is also undertaken to assess the performance of the onsite stormwater treatment system.

The results of stormwater monitoring are assessed against discharge limits stipulated within the EPL 20581 which are described in Table 2-4.

Table 2-4 Stormwater Discharge Limits

Parameter	Concentration Limit (100 percentile limit)	Frequency	Standards	Statutory Requirements
BOD	10 mg/L	As required following any discharge event	The Australian Water Quality Guidelines Guidelines for Fresh and Marine Waters (ANZECC,2000)	Schedule 3, Condition 10 of the Consent EPL Condition M2.2
Nitrogen (Ammonia)	1 mg/L			
Oil & Grease	10 mg/L			
pH	6 – 8.5 pH units			
Total Suspended Solids	50 mg/L			

There were a number of rainfall events during the operation stage of the Terminal, which triggered the requirement to conduct stormwater monitoring, the results of which are summarised in Table 2-5.

During the period April 2017 – February 2018, stormwater discharge samples collected from EPL Monitoring Point 1 generally exceeded the concentration limits stipulated in the Environmental Protection Licence (EPL) 20581. Based on these results, a number of corrective actions were implemented in liaison with the EPA to improve the management and maintenance of stormwater infrastructure at the Terminal in order to mitigate the potential pollution of stormwater.

As per correspondence with the EPA, cross contamination of stormwater from the downstream council drain was identified entering Monitoring Point 1 in February 2018. Evidence of this backflow effect is included in EPA correspondence (**Appendix C**). Since the discovery of this issue, Veolia has commenced an interim stormwater monitoring strategy in consultation with the EPA to collect a composite sample upstream of Monitoring Point 1. Stormwater discharge samples collected from composite sampling locations during the reporting period are provided in Table 2-5.

Table 2-5 Stormwater Discharge Quality Results at Monitoring Point 1 and Composite Sampling Locations during the reporting period

Parameter	Units	EPL Concentration Limit	EPL Monitoring Point 1*		Composite Sample	
			Average	Maximum	26 Feb 18	28 Apr 18
BOD	mg/L	10	17	117	<2	8
Ammonia as N	mg/L	1	0.58	1.15	0.01	0.09
Oil & Grease	mg/L	10	13	83	<5	7
pH	pH	6 – 8.5	7.61	7.90	2.04	7.56
Total Suspended Solids (TSS)	mg/L	50	47	169	35	78

Note – **bold** values indicate those which exceeded concentration limits as described in **Table 3.7**

*Average and Maximum values for Monitoring Point 1 discharge quality used historical data obtained November 2016 – February 2018

It has been noted there has been exceedences in stormwater discharge quality against EPL concentration limits. Veolia is liaising with the EPA on this issue. The February stormwater discharge composite sampling results were outside the EPL concentration limits for pH. The pH result of 2.04 obtained is assumed to be a sampling or laboratory testing error. This pH level is not characteristic of stormwater quality and was not consistent with other samples taken immediately downstream of the composite locations. In addition to this, ammonia and BOD were low and did not indicate evidence of leachate contamination.

The TSS concentration of 78 mg/L obtained from the stormwater sampling event 28 April 2018. It should also be noted the composite sampling locations are taken prior to treatment via humeceptor treatment device which is used for oils/grease and sediment removal.

As can be seen in Table 2-5, since the discovery of the cross-contamination issue, the results obtained from the composite sampling locations show a significant

improvement in stormwater discharge quality. Further investigations of the stormwater system at the Terminal will be carried out and reported in the next reporting period.

2.3.3 Leachate Monitoring

Leachate is defined as any water which comes into contact with waste or waste processing areas and was generated through the management of waste delivered at the Terminal. All generated leachate from the tipping floor and compactor areas, as well as wash-down water was collected into two 32 kilolitre (kL) leachate storage tanks for off-site disposal.

Leachate levels within the storage tanks were monitored on a weekly basis.

2.4 Noise and Vibration

2.4.1 Noise & Vibration Monitoring

Operational activities at the Terminal act as potential sources of noise emissions which may impact nearby receivers. Noise modelling was undertaken as part of the EIS which found that majority of the existing background noise levels at the Terminal are generated by the operation of the nearby Orica Botany Bay site.

Despite this, a number of operational noise goals were adopted for the Terminal which are provided in **Table 2-6**.

Table 2-6 Operational Amenity Noise Goals

Receptor Location	Amenity Criterion (LAeq, 15min, dB(A))		
	Day	Evening	Night
Residential Receivers	50	40	37
Industrial Receivers	65	65	65
Commercial Receivers	70	70	70

As per the monitoring schedule in the NVMP, SLR Consulting was engaged to conduct operational noise and vibration compliance assessment at the Terminal to determine if any impact of operational activities on nearby receivers occurs in regards to the emission of nuisance noise or vibration. This monitoring was conducted 9 and 10 August 2017.

Table 2-7 - Onsite Plant Noise Emissions

Receiver	Calculated Noise Levels (LAeq, 15min dBA)			INP Criteria (LAeq, 15min dBA)			Compliance
	Daytime	Evening	Night	Daytime	Evening	Night	
Loc 1	<35	<35	<35	50	40	37	Yes
Loc 2	<35	<35	<35	50	40	37	Yes
Loc 3	<35	<35	<35	70	70	70	Yes
Loc 4	<35	<35	<35	70	70	70	Yes
Loc 5	<35	<35	<35	70	70	70	Yes

Table 2-8 - Offsite Road Traffic Noise Emissions

Receiver	Calculated Noise Levels (LAeq, 1 hour dBA)		RNP Criteria (LAeq, 1 hour dBA)		Compliance
	Daytime	Night	Daytime	Night	
Loc 1	<50	<35	55	50	Yes
Loc 2	<50	<35	55	50	Yes

The results of the noise and vibration assessment determined all off-site noise emissions complied with the criteria determined in NVMP as summarised in Table 3-X above. The Noise and Vibration Compliance Assessment Report is provided in **Appendix D**.

In addition to the above, the performance of the Terminal in managing potential noise emissions were also assessed on the receipt of any noise complaints. No noise complaints were received in this reporting period.

2.4.2 Vibration Monitoring

Vibration impacts during operation of the Terminal were assessed in the EIS to be negligible and to pose no potential impact on sensitive receivers, buildings or the environment.

As mentioned in Section 2.4.1, a noise and vibration assessment was conducted at the Terminal in this reporting period. The results of the noise and vibration assessment determined all vibration emissions complied with the criteria determined in NVMP and are summarised in Table 2-9 below.

Table 2-9 - Summary of Maximum Vibration Levels

Location	Date / Time	Measured Maximum PPV (mm/s)	Frequency	Vibration Criteria (mm/s)	Compliance
Loc 1	09-08-2017 11:23 am	0.4 mm/s	32 Hz	0.56 (17.0)	Yes
Loc 2	09-08-2017 12:13 pm	0.5 mm/s	>100 Hz	0.56 (17.0)	Yes

No vibration complaints were received for the Terminal during this reporting period therefore not triggering the requirements for additional vibration monitoring

2.5 Traffic

A traffic impact statement (TIS) was undertaken as part of the EIS to assess the potential impact of the Terminal on traffic and transport during its operation.

The TIS found that the Terminal would see up to 355 trucks per day for the delivery of mixed waste, and that there was a potential for nearby roads to be affected due to these truck movements. A number of mitigation measures were implemented at the Terminal to manage these potential impacts as detailed in the Traffic Management Plan, including;

- **Truck Haulage and Turn Restrictions** – which impose access restrictions for the Terminal
- **Onsite Traffic Routes** – to prevent the likelihood of collisions or accidents and minimise the tracking of waste offsite.
- **Traffic Congestion Procedures** – which detail the measures to be followed to manage and/or clear traffic congestion on nearby roads as a result of operations at the Terminal; and
- **Driver Management** – training programs used to determine and/or enhance driver competency in professional conduct, workplace safety, risk and emergency response as well as drug and alcohol policies.

Monitoring activities conducted at the Terminal assist in measuring the effectiveness of these traffic control measures. No vehicles were observed using any unauthorised roads as stipulated within Schedule 3, Condition 29 of the Consent.

A total of 56,463 vehicle (truck) movements occurred during the operation reporting period which is equivalent to 155 trucks per day. This is in line with the predicted truck movements of 355 trucks per day as described in the EIS. A breakdown of truck movements per month is provided in Table 2-10.

Table 2-10 Truck Movements during the 2016-2017 & 2017-2018 reporting periods

Monitoring Period	2016/2017 Truck Movements	2017/2018 Truck Movements
29 to 30 April		100
May		4186
June		4176
July		4667
August		4955
September	1071	4743
October	1936	4946
November	2298	4928
December	3208	5027
January	3209	5140
February	3116	4420
March	3667	4895
1 to 28 April	3467	4300
Total	21,975	56,483

2.6 Waste

A Waste Management Plan (WMP) was prepared which details the control strategies and mechanisms for the effective monitoring and recording of waste at the Terminal as per **Table 2-11**.

Table 2-11 - Waste Monitoring Schedule

Condition Ref	Type of Monitoring	Frequency
Waste volume monitoring		
<ul style="list-style-type: none"> Storage on site 	Waste on floor	Daily
<ul style="list-style-type: none"> Annual limit 	Tonnage data review	Ongoing
Waste Recording	Incoming waste recording	Ongoing

2.6.1 Waste Volume Monitoring

Schedule 2, Condition 5 of the Consent stipulates that the Terminal must not receive or process more than 400,000 tonnes per annum (TPA) of putrescible waste and 100,000 TPA of non-putrescible waste. Veolia utilises the data provided by SAP to track and monitor the amount of incoming waste in accordance with the limits of the Consent.

The amount of waste accepted at the Terminal in the 2017 calendar year totalled 275,829 tonnes, as summarised in Table 2.12 below. Therefore the Terminal operated within the annual waste limit as stipulated within Consent Condition 5. The annual tonnage this reporting period was significantly higher than the previous year as this was the first full year of operations at the Terminal.

Table 2-12 - Incoming waste in 2016 and 2017 calendar years

Monitoring Period	Incoming Waste 2016 (tonnes)	Incoming Waste 2017 (tonnes)
January		16,968
February		16,877
March		19,859
April		18,902
May		21,970
June		21,941
July		24,180
August		26,233
September	6,410.35	25,269
October	11,146.38	27,434
November	13,047.18	27,730
December	17,734.64	28,467
TOTAL	48,338.55	275,829

2.6.2 Waste Recording

All waste received at the Terminal was recorded in the Systems, Applications and Products in Data Processing (SAP) software. SAP records vehicle registrations, the date and time of delivery, the gross and tare weight of the vehicle, as well as the nature and origin of the waste delivered by each contractor.

Visual assessments of incoming waste was conducted by weighbridge operators and assisted by close circuit television. These visual assessments were conducted to identify, reject and/or separate non-conforming waste upon its arrival to the Terminal. Waste was also inspected as it was tipped/unloaded onto the tipping floor.

No records of non-conforming waste were recorded during this reporting period. Incoming waste.

2.7 Pests and Vermin

The management of pest and vermin at the Terminal was maintained through preventative and responsive mitigation measures as per the Landscaping Management Plan. Such measures included;

- Routine inspections of the site by a registered pest controller
- Weekly Site Inspections to record site conditions such as evidence of vermin and pests
- Placement of rodent bait stations at various locations around the site

Pest control was undertaken by an external contractor (Expert Judgement Pest Management Pty Ltd) during this reporting period. Pest control service reports are provided in **Appendix E**.

No pest and/or vermin complaints or management issues were reported during the operation of the Terminal during the reporting period.

Section 3

Environmental Performance

SECTION 3 ENVIRONMENTAL PERFORMANCE

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

A discussion of the findings identified in this AEMR, as well as the corrective actions, where implemented are 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-Compliance and Findings

Non-compliances and findings identified during the 2016-2017 reporting period are detailed in Table 3-1 below to show that corrective actions to resolve/manage these non-compliances were implemented and completed by this reporting period.

Table 3-1 Non-Compliances/Findings and Corrective Actions in the 2016/2017 reporting period

Relevant Condition	Non-Compliance/Regulatory Action	Corrective Actions	Person/Team Responsible	Status
Schedule 3, Condition 1	DPE deemed that the site of Terminal had not been remediated in accordance with the approved Remediation Action Plan (RAP)	A Penalty Infringement Notice was issued to Veolia.	N/A	No further action required
Schedule 3 Condition 12	Stormwater discharge quality exceeded concentration limits as per EPL Condition L2.4.	Inclusion of stormwater valves in strategic places in the stormwater infrastructure.	Facility Manager – NSW Resource Recovery Team	Completed
		Installation and commissioning of an in-line autosampler was commissioned by Endres and Hauser in to monitor stormwater discharge quality at the Terminal	Facility Manager – NSW Resource Recovery Team	Completed

REPORT

Annual Environmental Management

		which is used to sample stormwater discharge following rain events.		
		Stormwater infrastructure is also monitored and on a weekly basis to ensure that each component is properly operated and maintained including cleaning of silt and debris in stormwater pits.	Facility Manager – NSW Resource Recovery Team	Completed
		Installation of roof cover and bunding around fuel tank.	Facility Manager – NSW Resource Recovery Team	Completed
		Veolia commissioned a stormwater and leachate management system review of the Terminal and a proposed design is to be carried out by Consult.In. Veolia is currently in consultation with Consult In to construct the proposed designed in the near future.	Facility Manager – NSW Resource Recovery Team	Completed

3.2 Current Findings and Voluntary Improvements

There were no non-compliances identified during this reporting period. Findings and voluntary improvements carried out during the 2017-2018 reporting period are detailed in Table 3-2.

Table 3-2 Findings and Corrective Actions in the 2017/2018 reporting period

Reference Condition	Finding	Corrective Action	Person/Team Responsible	Status
Schedule 3 Condition 9	Evidence of stormwater backflow from off-site sources at EPL Monitoring Point 1	Implement an interim stormwater monitoring strategy to obtain samples representative of stormwater quality at the Terminal to collect manual samples from the nearest accessible points upstream of EPL Monitoring Point 1 as provided in Appendix C .	Operations Project Manager – NSW Resource Recovery Team	Completed March 2018
		Report defect to building contractors (Lipman). Lipman to rectify defect and/or modify stormwater drainage line to eliminate ingress of off-site at EPL Monitoring Point 1.	Facility Manager – NSW Resource Recovery Team	Defect Report submitted May 2018. The contractor will be undertaking rectification works in the next reporting period, which will be detailed in the next AEMR.
Schedule 3, Condition 3	A total of 48 odour complaints were received at the Terminal	Sealing up of the eastern and southern breezeways to minimise potential fugitive odour emission release from the waste shed (Refer to Appendix F for Photos).	Facility Manager – NSW Resource Recovery Team	Completed February 2018
		Sealing up of the gap opening between the interface of the waste floor and compactor areas to minimise potential fugitive odour emission release from the waste shed (Refer to Appendix F for Photos).	Facility Manager – NSW Resource Recovery Team	Completed April 2018

		Provision of an additional carbon pad filter (two in total) installed in the waste container ventilation opening.	Facility Manager – NSW Resource Recovery Team	Completed April 2018
		Increase the carbon filter pad replacement frequency to 6-monthly (previously annual).		
		Optimisation and service works on the two fan modules.	Facility Manager – NSW Resource Recovery Team	Completed May 2018
		Clean up service of the air extraction plenum chamber and optimisation of the extraction duct louvres by an external contractor.	Facility Manager – NSW Resource Recovery Team	Completed May 2018

3.3 Other Regulatory Interactions

3.3.1 Stormwater Management

EPA and DPE carried out a site inspection on 3 August 2017. The EPA raised concerns around bunding and spill management adequacy within the maintenance shed and refuelling station. In response to concerns, Veolia implemented a maintenance management procedure to address any maintenance activities for equipment of a size not able to be contained within a permanent bund by using a portable bund.

In addition to this, Veolia had also reviewed the stormwater system which led to a discovery of cross contamination of stormwater from external sources into EPL Monitoring Point 1. This was attributed to a defect in the construction of the stormwater system, as described in Section 2.3. Veolia submitted a Defect Report to the building contractors (Lipman) to rectify this issue. Veolia also commenced an interim monitoring strategy, sampling from alternative monitoring locations. As per the results in Section 2.3, it was determined that historical exceedences in water quality were not indicative of any pollution from site activities. Veolia is currently liaising with the EPA on this matter. A copy of the correspondence, detailing findings from the investigation, is provided in **Appendix C**.

3.3.2 Odour Management

In the reporting period, as a result of odour complaints (refer to Section 3.4) received at the Terminal, Veolia undertook odour investigations to determine whether the

odour control systems in place were effectively mitigating odour. This included odour audits and implementing corrective actions out of the recommendations of the audits. Veolia has been liaising with the EPA in conjunction with the complainants to address this matter. A summary of actions undertaken as described in Table 3-2.

3.4 Complaints

A total of 48 complaints were issued to the Terminal during the operation of the Terminal within this reporting period, all of which related to odour emissions. 46 of the odour complaints were received directly from IXOM and Huntsman Corporation who are located north-east of the Terminal. The other 2 complaints were received via EPA and Randwick Council.

During this reporting period it should also be noted that there was industrial action occurring on the key complainant's site which may have resulted in additional complaints. Nevertheless, Veolia has undertaken several site improvements to mitigate odour emissions as summarised in Section 3.2.

Complaints were generally received between the hours of 7:00am – 12:00pm when wind directions originated from a south to south-western direction.

Following the receipt of each odour complaint:

1. The Terminal implements corrective actions to reduce odour emissions such as adjustment of fan extraction system speed settings;
2. The Site Manager communicates any corrective actions taken on the site with the complainant;
3. Meteorological wind data is downloaded from the BoM website;
4. Details of the complaint and wind data are logged in the BTT Complaints Register (**Appendix G**).

Since the completion of the odour mitigation actions (detailed in Section 3.2) no odour has been reported at neighbouring businesses. To confirm this positive outcome, Veolia has proactively been contacting neighbouring businesses to obtain feedback on potential off-site odour impacts.

A record of all contact to date is provided in **Appendix H**. Veolia will continue to collect this odour feedback data in the next reporting period.

3.5 Conclusion

A number of improvements to the environmental management of the Terminal have been implemented during this reporting period. These improvements were implemented as a result site investigations, complaints, regulatory feedback, as well as Veolia's internal assurance program. The key improvements included:

Stormwater Management

- Implementation of an interim stormwater discharge quality monitoring strategy

Veolia will continue to act on the findings from the stormwater management system investigation, the results of which will be provided in the next reporting period.

Odour Management

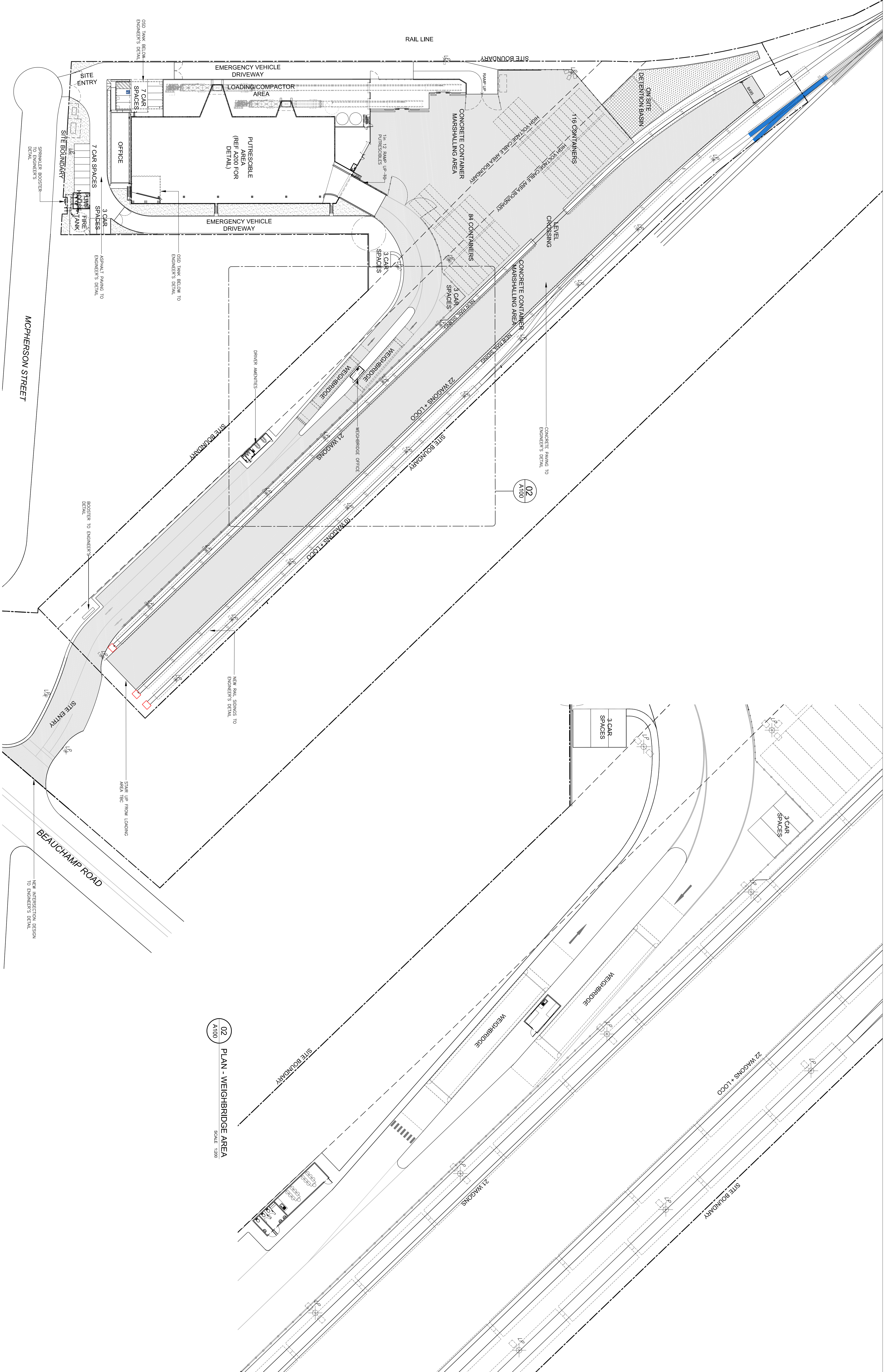
- Modification of the waste shed building to improve the effectiveness of the odour control system
- Revised container management treatment strategy
- Optimisation and service works on the two fan modules.

Recent monitoring results and feedback from neighbouring businesses, indicate a significant improvement in the environmental performance of the Terminal in relation to odour management. As a result of odour mitigation actions completed during this reporting period no odour has been reported at neighbouring businesses. This result will be verified through odour monitoring in the next reporting period.

REFERENCES

1. NSW DEC (2005) "Approved Methods for the Modelling and Assessment of Air Pollutants in NSW", August 2005
2. DEC (2006). *Technical framework: assessment and management of odour from stationary sources in NSW*, Department of Environment and Conservation. November 2006
3. DLA (2016) Baseline Environmental Site Assessment: 34-36 McPherson Street Banksmeadow, DLA Environmental. February 2016
4. DLA (2016) Validation Report 34-36 McPherson Street Banksmeadow, DLA Environmental. July 2016
5. EPA (2014). NSW Waste Classification Guidelines, NSW Environmental Protection Agency. January 1996.
6. Hyder (2014) Banksmeadow Transfer Terminal Environmental Impact Statement, Hyder Consulting. April 2014
7. VES (2016). Banksmeadow Transfer Terminal Annual Environmental Monitoring Report. Veolia. July 2016.
8. VES (2016). Banksmeadow Transfer Terminal Annual Environmental Monitoring Report. Veolia. July 2016.
9. SLR Consulting (2017). Noise and Vibration Assessment . August 2017

APPENDICES**Appendix A - Site Layout Plan**



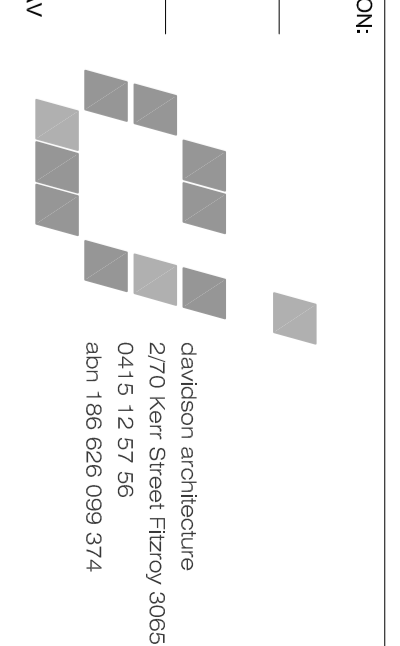
01 PLAN
SCALE 1:500

REV.	DETAILS	DATE	BY	GENERAL NOTES:
P1	PRELIMINARY CLIENT REVIEW	10/01/15	AD	<p>1. DO NOT SCALE DRAWINGS. FOLLOW WRITTEN DIMENSIONS ONLY.</p> <p>2. ALL WORKS TO BE IN ACCORDANCE WITH BUILDING CODE OF AUSTRALIA (2015)</p> <p>3. ALL WORKS TO BE IN ACCORDANCE WITH THE GALVANISING LAYER, IF THE GALVANISING LAYER IS TO BE INSTALLED.</p> <p>4. ALL GALVANISING TO BE TO AS15288</p> <p>5. REFER TO DRAWING A800 FOR LEGEND OF ALL DRAWING TAGS AND ABBREVIATIONS</p> <p>6. ALL INTERNAL AND EXTERNAL STEEL TO BE HOT DIP GALVANISED, AFTER HOT DIP</p>
P2	REVISIONS AS COUNCIL	17/01/15	AD	
P3	CONSTRUCTION CERTIFICATE	22/01/15	AD	
P4	CONSTRUCTION CERTIFICATE ISSUE	28/01/15	AD	
P5	CONSTRUCTION CERTIFICATE ISSUE	28/01/15	AD	
P6	CONSTRUCTION CERTIFICATE ISSUE	28/01/15	AD	
C1	STAINLESS STEEL LAST DRIVEWAY	27/02/15	MC	<p>7. ALL GALVANISING TO BE TO AS15288</p> <p>8. REFER TO DRAWING A800 FOR LEGEND OF ALL DRAWING TAGS AND ABBREVIATIONS</p>

PROJECT:	PROJECT NUMBER:	DRAWING NUMBER:	REVISION:
BANKSMEADOW TERMINAL	1414	A100	C1
CLIENT:	DRAWING NAME: <td>DATE:</td> <td>DRAWN:</td>	DATE:	DRAWN:
LIPPMAN PTY LTD	SITE PLAN	6/15	AD
PROJECT NORTH	DRAWING STATUS: <td>SCALE: <td>DATE:</td> </td>	SCALE: <td>DATE:</td>	DATE:
1	CONSTRUCTION	1:500 @B1 1:1250 @A3	6/15
1	ISSUE	ALL WORKS TO FOLLOW WRITTEN DIMENSIONS, DO NOT SCALE	
1		ALL WORKS TO BE IN ACCORDANCE WITH THE BUILDING CODE OF AUSTRALIA (2015)	
1		ALL GALVANISING TO BE TO AS15288	
1		REFER TO DRAWING A800 FOR LEGEND OF ALL DRAWING TAGS AND ABBREVIATIONS	
1		ALL INTERNAL AND EXTERNAL STEEL TO BE HOT DIP GALVANISED, AFTER HOT DIP	



PROJECT: BANKSMEADOW TERMINAL
 PROJECT NUMBER: 1414
 DRAWING NUMBER: A100
 REVISION: C1
 CLIENT: LIPPMAN PTY LTD
 DRAWING NAME: SITE PLAN
 DATE: 6/15
 DRAWN: AD
 SCALE: 1:500 @B1 1:1250 @A3
 ALL WORKS TO FOLLOW WRITTEN DIMENSIONS, DO NOT SCALE
 ALL GALVANISING TO BE TO AS15288
 REFER TO DRAWING A800 FOR LEGEND OF ALL DRAWING TAGS AND ABBREVIATIONS
 ALL INTERNAL AND EXTERNAL STEEL TO BE HOT DIP GALVANISED, AFTER HOT DIP



Appendix B – Groundwater Results

BANKSMEADOW TRANSFER TERMINAL - GROUNDWATER MONITORING RESULTS

Sample	Unit	LOR	BTTGW1	BTTGW1	BTTGW1
Sample Date			13/04/2017	13/10/2017	10/04/2018
Sampling Period			Baseline	B1	B2
Standing Water Level	m	N/A	2.33	2.86	2.96
pH	pH	0.01	7.28	7.18	7.36
Electrical Conductivity, EC	µS/cm	1	578	341	366
Total Dissolved Solids, TDS	mg/L	1	424	174	208
Ammonia as N	mg/L	0.01	0.33	0.36	0.3
Total Organic Carbon	mg/L	1	27	34	18
Biochemical Oxygen Demand	mg/L	2	3	<2	3

Sample	Unit	LOR	BTTGW2	BTTGW2	BTTGW2
Sample Date			13/04/2017	22/11/2017	10/04/2018
Sampling Period			Baseline	B1	B2
Standing Water Level	m	N/A	1.10	1.24	1.26
pH	pH	0.01	7.31	6.85	7.11
Electrical Conductivity, EC	µS/cm	1	1150	1420	1150
Total Dissolved Solids, TDS	mg/L	1	800	778	608
Ammonia as N	mg/L	0.01	1.37	1.38	1.06
Total Organic Carbon	mg/L	1	17	111	12
Biochemical Oxygen Demand	mg/L	2	8	8	5

Sample	Unit	LOR	BTTGW3	BTTGW3	BTTGW3
Sample Date			13/04/2017	13/10/2017	10/04/2018
Sampling Period			Baseline	B1	B2
Standing Water Level	m	N/A	1.40	1.67	2.00
pH	pH	0.01	7.27	7.39	7.53
Electrical Conductivity, EC	µS/cm	1	1040	1070	329
Total Dissolved Solids, TDS	mg/L	1	611	580	223
Ammonia as N	mg/L	0.01	0.5	0.2	0.13
Total Organic Carbon	mg/L	1	24	12	10
Biochemical Oxygen Demand	mg/L	2	<2	<2	<2

Appendix C – EPA Stormwater Update Letter



6 April 2018

Waste Operations Section
Environment Protection Authority
Level 14, 59 – 61 Goulburn Street
Sydney NSW 2000

Dear Damien,

Re: Stormwater Management Update - Banksmeadow Waste Transfer Terminal - Environment Protection Licence 20581

Veolia Environmental Services (Australia) Pty Ltd (“**Veolia**”) refers to the site meeting held at Banksmeadow Transfer Terminal (“**the Premises**”) on the 21 March 2018 attended by NSW Environment Protection Authority (“**EPA**”) representatives, to provide an update on recent stormwater discharge results and Veolia’s recent investigations into the stormwater system at the Premises.

Further to our meeting and presentation to yourself and Stephanie Todd on the 21 March 2018 we are writing to confirm the content of our discussions and recent findings as requested by the EPA.

Background

The construction of Banksmeadow Transfer Terminal was completed in June 2016 and commenced operations in September 2016. In accordance with the Environment Protection Licence (“**EPL20581**”), sampling of all stormwater flowing offsite via the stormwater treatment system is conducted at the discharge outlet pit (EPL Monitoring Point 1) prior to leaving the Premises.


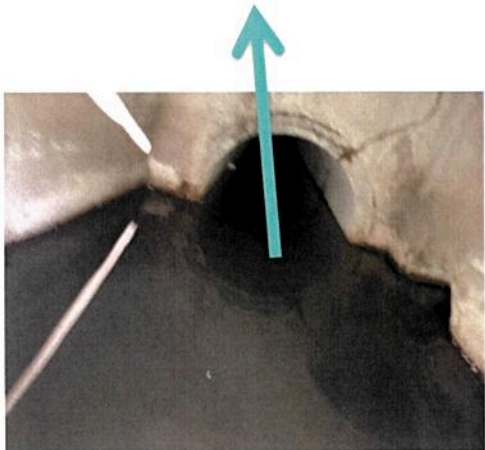
Since stormwater discharge monitoring commenced in October 2016, stormwater discharge quality results have shown inconsistent trends in Ammonia, Biological Oxygen Demand (BOD) and Total Suspended Solids (TSS) concentrations.

Recent Findings

On the 2 February 2018 an external stormwater consultant identified stormwater backflow from the Council drain into Monitoring Point 1. Evidence of this backflow effect is shown in photos and survey levels of the water levels. Veolia noted water levels in the Council drain and Monitoring Point 1 were the same across the two drains.

The council drain is located at the lowest point of the Macpherson Street cul-de-sac and collects surface water runoff from MacPherson Street and stormwater from an underground drainage line along Macpherson Street. Stormwater samples collected from the Council drain indicate water quality in this pit is of poor quality and contains elevated levels of Ammonia, BOD and TSS. Therefore any cross-contamination of stormwater from the Council drain with water collected at Monitoring Point 1 will lead to erroneous results which do not provide an accurate description of the overall quality of the stormwater flowing off the Premises. As analytes are reported in fractions of grams, even extremely small volumes of contaminants can significantly affect results. Therefore based on this finding, all historical stormwater quality results are considered an incorrect representation of stormwater discharge quality at the Premises.

Table 1 - Evidence of Stormwater Backflow into Monitoring Point 1

	Monitoring Point 1	Council Pit (Macpherson Street cul-de-sac)
	 <p>Monitoring Point 1 on 28/2/2018 showing back up of water</p>	 <p>Council Drain on 28/2/2018 showing back up of water</p>
Water Level RL (m AHD)	3.49 m	3.55 m

Immediately following the identification of this issue, Veolia contacted Bayside Council to investigate potential blockages in the council stormwater system. A concrete block resulting in 40% blockage of the system was found and removed by Council. However subsequent observations noted the backflow effect was still occurring at Monitoring Point 1.



As provided in Table 2, invert levels of the drainage pipe between Monitoring Point 1 and the Council drain were also surveyed to verify the fall of the pipe. Survey levels of the drainage pipe indicate the outlet of Monitoring Point 1 is lower than the inlet to the council drain which is likely to be contributing to the backflow effect.

Veolia is currently working with Bayside Council to further investigate this issue and determine a viable option for rectification.

Table 2 - Pipe Invert Levels

Survey Level	Monitoring Point 1	Council Pit (Macpherson Street cul-de-sac)
Pipe Invert RL (m AHD)	3.21 m	3.32 m

Interim Stormwater Monitoring Strategy

Since the discovery of this issue, Veolia immediately commenced an interim stormwater monitoring strategy to obtain samples representative of stormwater discharge quality from the Premises. Manual samples are collected from the nearest accessible points upstream of Monitoring Point 1, as provided below. Interim sampling locations are shown in Appendix A.

Table 3 - Interim Sampling Locations

Sample Name	Monitoring Locations
Composite	OSD1
	OSD2*
OSD3	OSD3*

*Note - Samples taken prior to treatment via humeceptor device used for hydrocarbon and oils/grease pollutant removal. Therefore results are assumed to reflect worst-case stormwater discharge quality at the Premises.

Stormwater sampling from these locations will continue to be carried out until any modifications are completed to rectify cross contamination between the council drain and the outlet of the Premises. Veolia will notify the EPA prior to recommencement of sampling from Monitoring Point 1.



Maintenance Management

Veolia currently uses temporary bund system for maintenance activities which cannot be undertaken in the covered maintenance shed due to size of some mobile equipment (Container Handler). Veolia is currently liaising with an external stormwater consultant to construct a permanent bunding structure for maintenance which cannot be undertaken in the maintenance shed.

Current Investigations/Actions

Veolia continues to carry out the following investigations/actions on potential improvements to the stormwater system at the Premises and correspond with the EPA where necessary:

- Alternate method of sampling to obtain representative sample of stormwater discharge quality from the site in the interim
- Establish monitoring program sampling of "first flush" of stormwater discharge from the site and collect six months of monitoring data to report to EPA.
- Stormwater consultant to advise on options to prevent cross contamination between council drain and Monitoring Point 1.
- Liaise with stormwater consultant to design a suitable permanent bunding arrangement and advise on methods of control to ensure there will be no potential contamination entering stormwater.

Veolia trusts the information outlined in this letter satisfies your concerns. Should you have any additional queries, please contact the undersigned on 0412 275 133 or bob.manevski@veolia.com.

Yours sincerely,

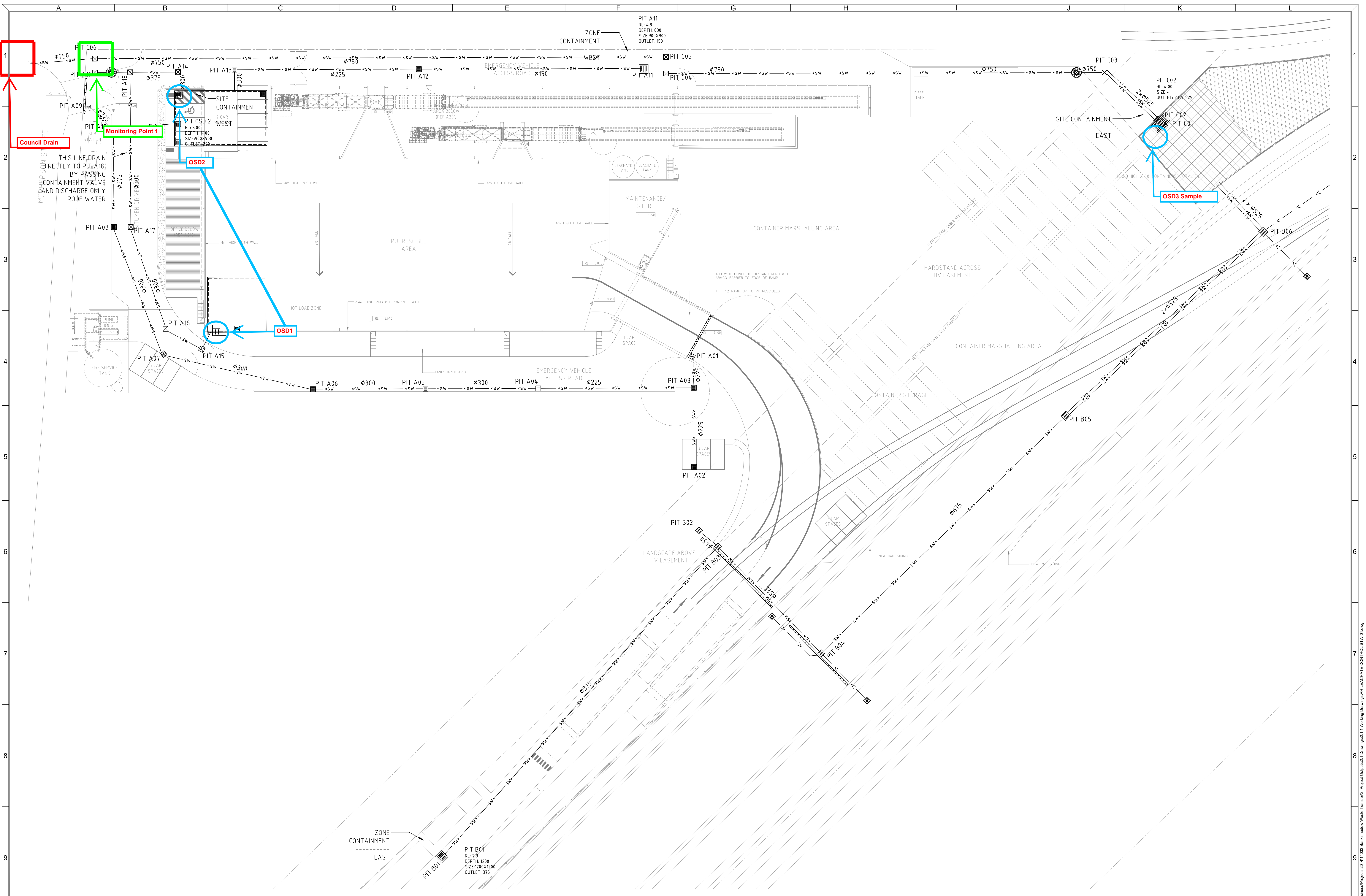
A handwritten signature in black ink, appearing to read "Bob Manevski", is written over a dotted line.

Veolia Australia and New Zealand

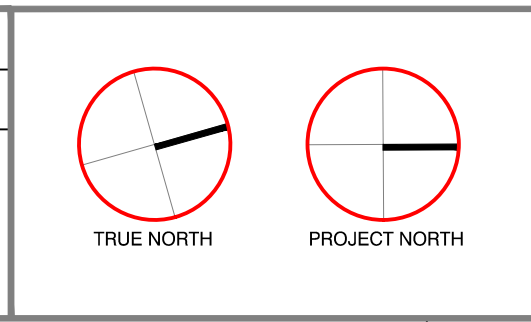
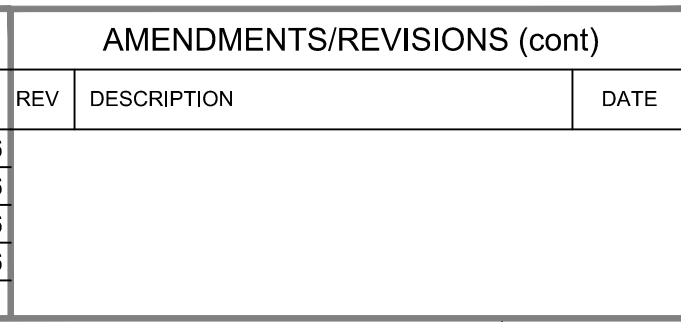
Bob Manevski
Facility Manager

Enclosed:

Attachment 1 - Site Plan



AMENDMENTS/REVISIONS		AMENDMENTS/REVISIONS (cont)			
REV	DESCRIPTION	DATE	REV	DESCRIPTION	DATE
01	INFORMATION	03/08/16			
02	REVIEW	04/08/16			
03	REVIEW	12/08/16			
04	DETAILS REMOVED	12/08/16			



PROJECT
BANKSMEADOW WASTE TRANSFER
BANKSMEADOW TERMINAL
 34-36 McPherson Street Banksmeadow

DRAWING TITLE
HYDRAULIC SERVICES
LEACHATE CONTAINMENT STW
SITE PLAN

DRAWN	DESIGNED	CHECKED	SCALE
September, 2016	14033	H-701	1:250 @ B1

DATE	DRAWING NO.	REVISION
September, 2016	14033	04

PRELIMINARY ISSUE

C:\Users\paul\OneDrive for Business\Projects\2016\14033-Banksmeadow Waste Transfer\2.1 Working Drawings\HAH-LEACHATE CONTROL STW-01.rvt

Appendix D – SLR Noise and Vibration Compliance Assessment Report



global environmental solutions

Noise and Vibration Compliance Assessment
Banksmeadow Transfer Terminal
14 Beauchamp Road and 34-36 McPherson Street,
Banksmeadow

Report Number 610.17398-R01

19 September 2017

Veolia Australia and New Zealand
Cnr Unwin and Shirley Streets
ROSEHILL NSW 2142

Version: v1.0

Noise and Vibration Compliance Assessment

Banksmeadow Transfer Terminal

14 Beauchamp Road and 34-36 McPherson Street, Banksmeadow

PREPARED BY:

SLR Consulting Australia Pty Ltd
ABN 29 001 584 612
2 Lincoln Street
Lane Cove NSW 2066 Australia
(PO Box 176 Lane Cove NSW 1595 Australia)
+61 2 9427 8100 +61 2 9427 8200
sydney@slrconsulting.com www.slrconsulting.com

This report has been prepared by SLR Consulting Australia Pty Ltd with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with the Client. Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of Veolia Australia and New Zealand. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

DOCUMENT CONTROL

Reference	Date	Prepared	Checked	Authorised
610.17398-R01-v0.2	19 September 2017	Jason Qian	Mark Blake	Mark Blake

Table of Contents

1	INTRODUCTION	4
2	SITE DESCRIPTION	4
3	ASSESSMENT CRITERIA	5
3.1	Offsite Noise Goals	5
3.2	Onsite Noise Source Goals	5
3.3	Operational Vibration	6
4	MEASUREMENT RESULTS	6
4.1	Unattended Noise Monitoring	6
4.2	Offsite Attended Noise Measurement	6
4.3	Onsite Sound Power Levels Measurement	9
4.4	Attended Vibration Measurement	9
5	CONCLUSION	11

TABLES

Table 1	Sensitive Receivers near BTT	4
Table 2	Operational Noise Goals	5
Table 3	Offsite Traffic Noise Criteria	5
Table 4	Onsite Plant and Equipment SWL Goals	5
Table 5	Human Comfort Vibration Goals – PPV (mm/s)	6
Table 6	Operator Attended Ambient Noise Survey	7
Table 7	Onsite Plant Noise Emissions	8
Table 8	Offsite Road Traffic Noise Emissions	8
Table 9	Calculated Sound Power Levels of Onsite Plant and Equipment	9
Table 10	Summary of Maximum Vibration Levels	9

FIGURES

Figure 1	Site Map	4
Figure 2	Peak Vibration Levels – Location One	10
Figure 3	Peak Vibration Levels – Location Two	10

APPENDICES

Appendix A	Daily Monitoring Noise Levels – Location One
Appendix B	Daily Monitoring Noise Levels – Location Two

1 INTRODUCTION

SLR Consulting Australia Pty Ltd (SLR) has been engaged by Veolia Australia and New Zealand (Veolia) to conduct a Noise and Vibration Compliance Assessment for the existing Banksmeadow Transfer Terminal (BTT) in accordance with the noise and vibration monitoring requirement of the Noise and Vibration Management Plan dated 23 June 2016 (NVMP).

The assessment presents monitoring results from the noise and vibration site survey conducted during the period 9 August to 10 August 2017 and relevant criteria stipulated in NVMP.

2 SITE DESCRIPTION

BTT is located at the corner of 14 Beauchamp Road and 34-36 McPherson Street, Banksmeadow. **Figure 1** shows the site location and nearby sensitive receivers, which are also listed in **Table 1**.

Figure 1 Site Map

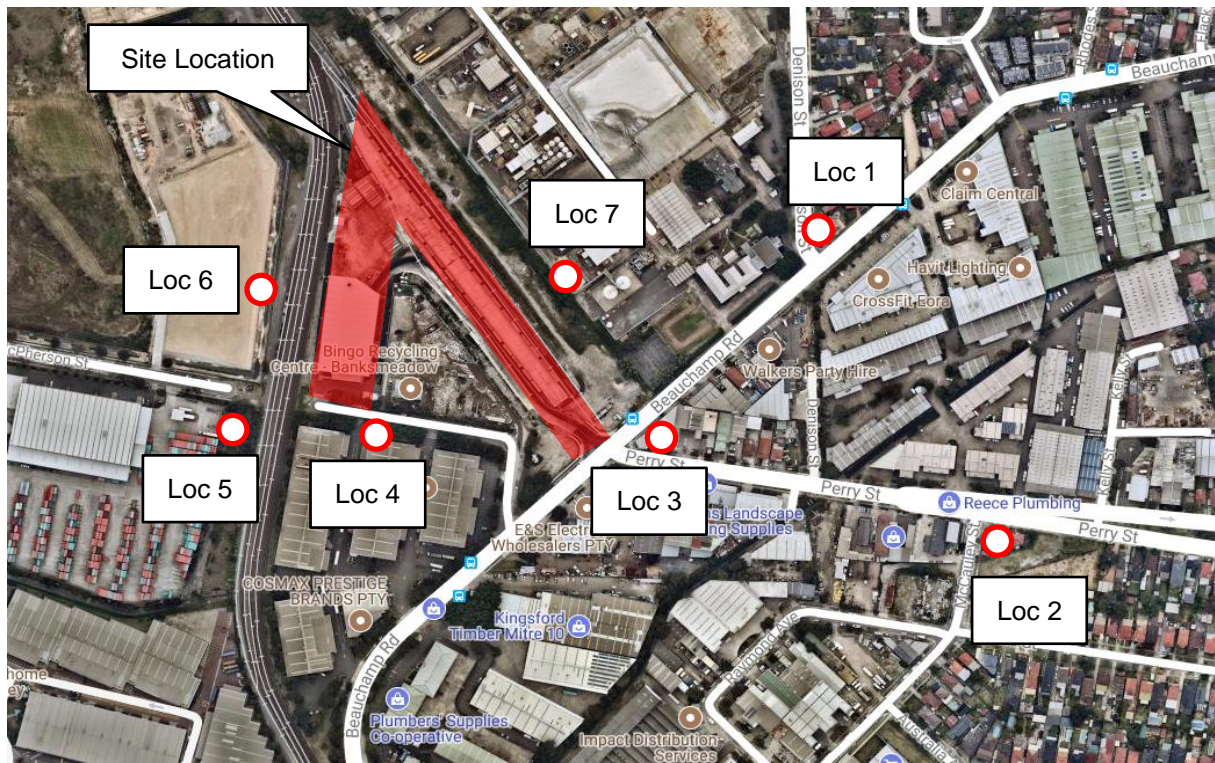


Image Courtesy of NearMap (image date ???)

Table 1 Sensitive Receivers near BTT

Receiver	Address	Receiver Type	Distance from Site Boundary
Location 1	30 Denison Street, Hillsdale	Residential	250m
Location 2	61-61A Perry Street, Matraville	Residential	350m
Location 3	South-west boundary of 2-6 Perry Street, Matraville	Commercial	30m
Location 4	North boundary of 12A McPherson Street, Banksmeadow	Commercial	30m
Location 5	North-east boundary of 15 McPherson Street, Banksmeadow	Commercial	65m
Location 6	East boundary of 28 Nant Street, Banksmeadow	Industrial	35m
Location 7	South-west boundary of 77 Denison Street, Banksmeadow	Industrial	50m

3 ASSESSMENT CRITERIA

Noise and vibration criteria are summarised in Section 2 of NVMP.

3.1 Offsite Noise Goals

Table 2 presents the operational noise goals for the BBT site.

Table 2 Operational Noise Goals

Receiver	Intrusiveness Criterion (LAeq,15min dBA)			Amenity Criterion (LAeq,15min dBA)		
	Day	Evening	Night	Day	Evening	Night
Residential	50	50	50	50	40	37
Industrial	n/a	n/a	n/a	65	65	65
Commercial	n/a	n/a	n/a	70	70	70

A sleep disturbance screening criterion of 60 dBA LA1(1minute) applies external to residential dwellings.

Table 3 presents the offsite traffic noise criteria.

Table 3 Offsite Traffic Noise Criteria

Type of Development	Assessment Criteria (dBA)	
	Day (7am – 10pm)	Night (10pm – 7am)
Existing residences affected by additional traffic on existing freeways/arterial/sub-arterial roads generated by land use developments	LAeq 15 hour 60 (external)	LAeq 9 hour 55 (external)
Existing residences affected by additional traffic on existing local roads generated by land use developments	LAeq 1 hour 55 (external)	LAeq 1 hour 50 (external)

3.2 Onsite Noise Source Goals

Table 4 summarises the Sound Power Level (SWL) goals for onsite plant and equipment.

Table 4 Onsite Plant and Equipment SWL Goals

Plant	Sound Power Level per Item (LAeq, 15min dBA)
Odour Extraction Fan	93
Compactors	112
Front End Loader	111
Skid Steer	107
Container Handler	110
Sweeper	95
Waster Truck	105
Staff Light Vehicle	73
Train	100

3.3 Operational Vibration

The document *Assessing Vibration: A Technical Guideline* (DECCW) provides guidance for assessing human exposure to vibration. The publication is based on British Standard BS6472:1992.

Based on this guideline the operational vibration, vibration limits for the BTT are shown in the **Table 5**. The vibration limits are determined by measuring vibrational intensity in terms of peak ground particle velocity (PPV) in mm/s and the limits for the BTT are shown in **Table 5**.

Table 5 Human Comfort Vibration Goals – PPV (mm/s)

Receiver	Preferred PPV (mm/s)	Maximum PPV (mm/s)
Residences	0.28 (8.6)	0.56 (17.0)
Offices	0.56 (18.0)	1.1 (36.0)
Workshops	1.1 (18.0)	2.2 (36.0)

Note: Impulsive goals are shown in brackets. These are most relevant to activities that create up to 3 distinct vibration events in an assessment period, e.g. occasional dropping of heavy equipment, occasional loading and unloading.

4 MEASUREMENT RESULTS

4.1 Unattended Noise Monitoring

Unattended noise monitoring was conducted between 9 August and 17 August 2017 at the Location 1 and Location 2 shown in **Figure 1**.

Instrumentation for the surveys comprised two SVAN 957 environmental noise loggers (Serial Numbers 27579 and 27522). The loggers were fitted with microphone windshields. Calibration of the loggers was checked prior to and following measurements. Drift in calibration did not exceed ± 0.5 dBA. All equipment carried appropriate and current NATA (or manufacturer) calibration certificates.

The measured data has been filtered to remove data affected by adverse weather conditions following reference to the weather reports recorded at the Bureau of Meteorology (BOM) Sydney Airport weather station.

Daily graphs representing the measured noise data are attached in **Appendix A** to **Appendix B**. The graphs represent each 24 hour period by incorporating the LA10, LAeq and LA90 noise levels for the corresponding 15 minute periods.

4.2 Offsite Attended Noise Measurement

Operator-attended measurements were conducted on Wednesday 9 August 2017. The locations of attended measurements are shown in **Figure 1**.

Instrumentation for the survey comprised a Brüel & Kjær Type 2260 environmental noise logger (Serial Number 2414604) fitted with a microphone windshield. Calibration of the sound level meter was checked prior to and following measurements. Drift in calibration did not exceed ± 0.5 dBA. The equipment carried appropriate and current NATA (or manufacturer) calibration certificates.

Measurements were conducted in accordance with AS 1055.1-1997: *Acoustics - Description and measurement of environmental noise - General procedures*.

The results of the operator attended noise survey are presented in **Table 6**, together with a description of the contributed noise levels at the time of the measurement.

Table 6 Operator Attended Ambient Noise Survey

	Receiver	Date/ Start time/ Weather	Primary Noise Descriptor (dBA re 20 µPa)					Description of Noise Emission, Typical Maximum Levels LAmax (dBA)
			LAmx	LA1	LA10	LA90	LAeq	
15 Minute Measurements	Loc 1	9/8/2017 11:32 am Wind: 4m/s Temp: 18 °C	90	81	73	58	70	Light Vehicle: 55-81 Heavy Vehicle: 60-90 Non-related Industrial noise: 54 Operational noise from site is not audible.
	Loc 2	9/8/2017 9:30 am Wind: 4m/s Temp: 14 °C	85	75	70	54	66	Light Vehicle: 59-73 Heavy Vehicle: 66-82 Nearby renovation noise: 83-85 Operational noise from site is not audible.
	Loc 3	9/8/2017 9:16 am Wind: 4m/s Temp: 14 °C	88	82	78	64	74	Traffic: 70-88 Traffic to BTT site: 71-74 Operational noise from site is not audible.
	Loc 4	9/8/2017 9:52 am Wind: 4m/s Temp: 15 °C	89	74	68	59	66	Light vehicle: 63-76 Heavy vehicle: 69-89 Operational noise from site is not audible.
	Loc 5	9/8/2017 10:16 am Wind: 4m/s Temp: 16 °C	70	61	58	54	57	Traffic: 58-70 Operational noise from site is not audible.
	Loc 1	9/8/2017 6:08 pm Wind: 4m/s Temp: 17 °C	87	80	72	58	70	Traffic: 67-87 Operational noise from site is not audible.
	Loc 2	9/8/2017 6:46 pm Wind: 4m/s Temp: 16 °C	81	75	69	50	65	Background noise: 45 Traffic: 70-81 Operational noise from site is not audible.
	Loc 3	9/8/2017 6:28 pm Wind: 4m/s Temp: 17 °C	93	71	66	52	64	Traffic: 70-93 Non-related Industrial noise: 93 Operational noise from site is not audible.
	Loc 4	9/8/2017 7:11 pm Wind: 4m/s Temp: 16 °C	88	74	61	55	62	Traffic: 70-88 Non-related Industrial noise: 55-65 Operational noise from site is not audible.
	Loc 5	9/8/2017 7:37 pm Wind: 3m/s Temp: 15 °C	67	59	53	51	53	Traffic: 60-67 Non-related Industrial noise: 50 Operational noise from site is not audible.
	Loc 1	10/8/2017 4:25 am Wind: 4m/s Temp: 9 °C	80	76	67	48	64	Traffic: 65-80 Operational noise from site is not audible.
	Loc 2	10/8/2017 5:32 am Wind: 4m/s Temp: 10 °C	80	69	64	50	60	Traffic: 66-80 Operational noise from site is not audible.
	Loc 3	10/8/2017 2:09 am Wind: 3m/s Temp: 9 °C	85	79	66	57	66	Traffic: 66-85 Operational noise from site is not audible.

	Receiver	Date/ Start time/ Weather	Primary Noise Descriptor (dBA re 20 µPa)					Description of Noise Emission, Typical Maximum Levels LAmax (dBA)
			LAmax	LA1	LA10	LA90	LAeq	
	Loc 4	10/8/2017 2:24 am Wind: 3m/s Temp: 9°C	87	75	64	58	64	Traffic: 66-75 Non-related Industrial noise: 70-87 Operational noise from site is not audible.
	Loc 5	10/8/2017 2:57 am Wind: 3m/s Temp: 9°C	70	66	55	49	54	Traffic: 62-70 Operational noise from site is not audible.
1 Hour Measurements	Loc 1	9/8/2017 11:58 am Wind: 4m/s Temp: 18°C	90	81	73	58	70	Light Vehicle: 55-81 Heavy Vehicle: 60-90 Non-related Industrial noise: 54 Airplane: 58 Operational noise from site is not audible.
	Loc 2	9/8/2017 9:49 am Wind: 4m/s Temp: 14°C	85	75	70	54	66	Light Vehicle: 59-73 Heavy Vehicle: 66-82 Non-related Industrial noise: 83-85 Airplane: 56-64 Operational noise from site is not audible.
	Loc 1	10/08/2017 4:26 am Wind: 5m/s Temp: 9°C	84	76	67	49	64	Traffic: 65-84 Operational noise from site is not audible.
	Loc 2	10/08/2017 5:32 am Wind: 5m/s Temp: 10°C	91	71	66	51	71	Traffic: 66-91 Operational noise from site is not audible.

Note 1: The attended measurements were not conducted at Location 6 & 7 due to being inaccessible.

Based on the attended noise measurement detailed in Table 6, calculated noise levels and relevant criteria are presented in **Table 7** and **Table 8**.

Table 7 Onsite Plant Noise Emissions

Receiver	Calculated Noise Levels (LAeq, 15min dBA)			INP Criteria (LAeq, 15min dBA)			Compliance
	Daytime	Evening	Night	Daytime	Evening	Night	
Loc 1	<35	<35	<35	50	40	37	Yes
Loc 2	<35	<35	<35	50	40	37	Yes
Loc 3	<35	<35	<35	70	70	70	Yes
Loc 4	<35	<35	<35	70	70	70	Yes
Loc 5	<35	<35	<35	70	70	70	Yes

Table 8 Offsite Road Traffic Noise Emissions

Receiver	Calculated Noise Levels (LAeq, 1 hour dBA)		RNP Criteria (LAeq, 1 hour dBA)		Compliance
	Daytime	Night	Daytime	Night	
Loc 1	<50	<35	55	50	Yes
Loc 2	<50	<35	55	50	Yes

The following observations are also made on the basis of the site inspection:

- The onsite operational noise is not audible at all noise sensitive receivers.
- Location 4 is the nearest receiver to the BTT site. The attended measurements at Location 4 showed that the noise emission is not acoustically apparent at nearby sensitive receivers.
- Although Location 6 and 7 are inaccessible due to security issue, the noise levels at these two locations are calculated to be in compliance with NVMP criteria.

4.3 Onsite Sound Power Levels Measurement

Onsite noise measurements were conducted on Wednesday 9 August 2017. Measurement results of noise sources onsite are summarised in **Table 9**.

Table 9 Calculated Sound Power Levels of Onsite Plant and Equipment

Plant	Qty	Measured Sound Power Level (LAeq, 15min dBA)	Sound Power Level Goal (LAeq, 15min dBA)	Compliance
Odour Extraction Fan	1	92	93	Yes
Compactors	2	109	112	Yes
Front End Loader	1	108	111	Yes
Skid Steer	1	104	107	Yes
Container Handler	2	108	110	Yes
Sweeper	1	N/A ¹	95	N/A
Waster Truck	4 in 15 minutes	98	105	Yes
Staff Light Vehicle	8 in 15 minutes	73	73	Yes
Train	1	94	100	Yes
Total		116	119	Yes

Note 1: Sweeper was not operating during site survey.

4.4 Attended Vibration Measurement

Attended vibration measurements were conducted on Wednesday 9 August 2017 at Location 1 and Location 2 shown in **Figure 1**. **Table 10** presents summaries of the measured maximum vibration levels (in any orthogonal direction) at the subject site, together with its corresponding frequency.

Measured maximum PPV levels recorded in 15 second intervals are shown in **Figure 2** and **Figure 3**.

Table 10 Summary of Maximum Vibration Levels

Location	Date / Time	Measured Maximum PPV (mm/s)	Frequency	Vibration Criteria (mm/s)	Compliance
Loc 1	09-08-2017 11:23 am	0.4 mm/s	32 Hz	0.56 (17.0)	Yes
Loc 2	09-08-2017 12:13 pm	0.5 mm/s	>100 Hz	0.56 (17.0)	Yes

Figure 2 Peak Vibration Levels – Location One

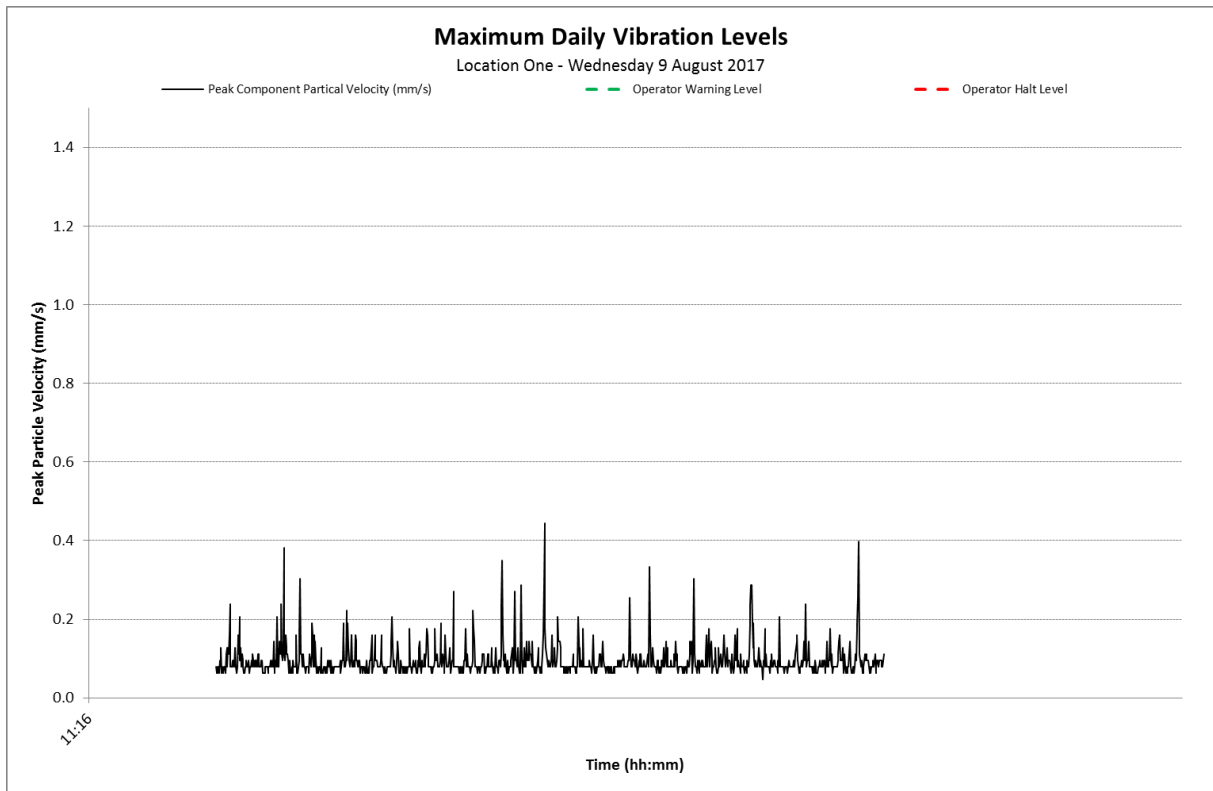
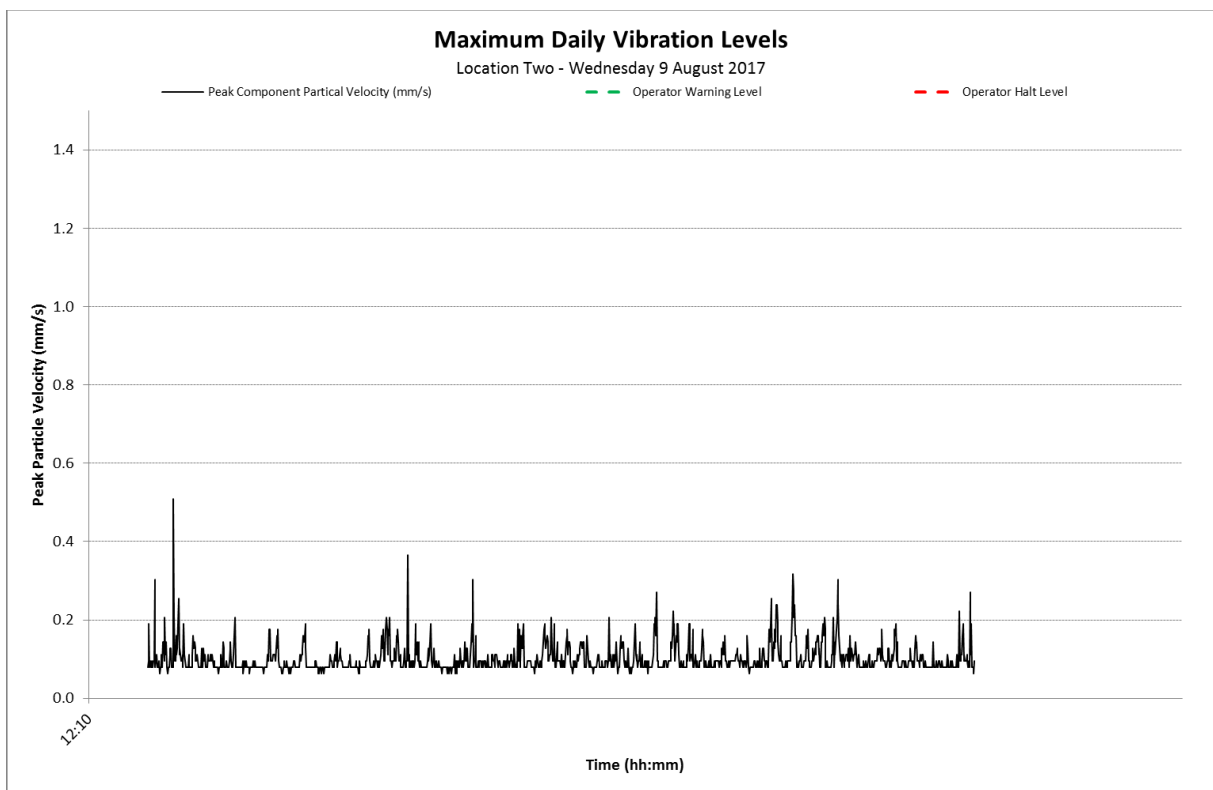


Figure 3 Peak Vibration Levels – Location Two



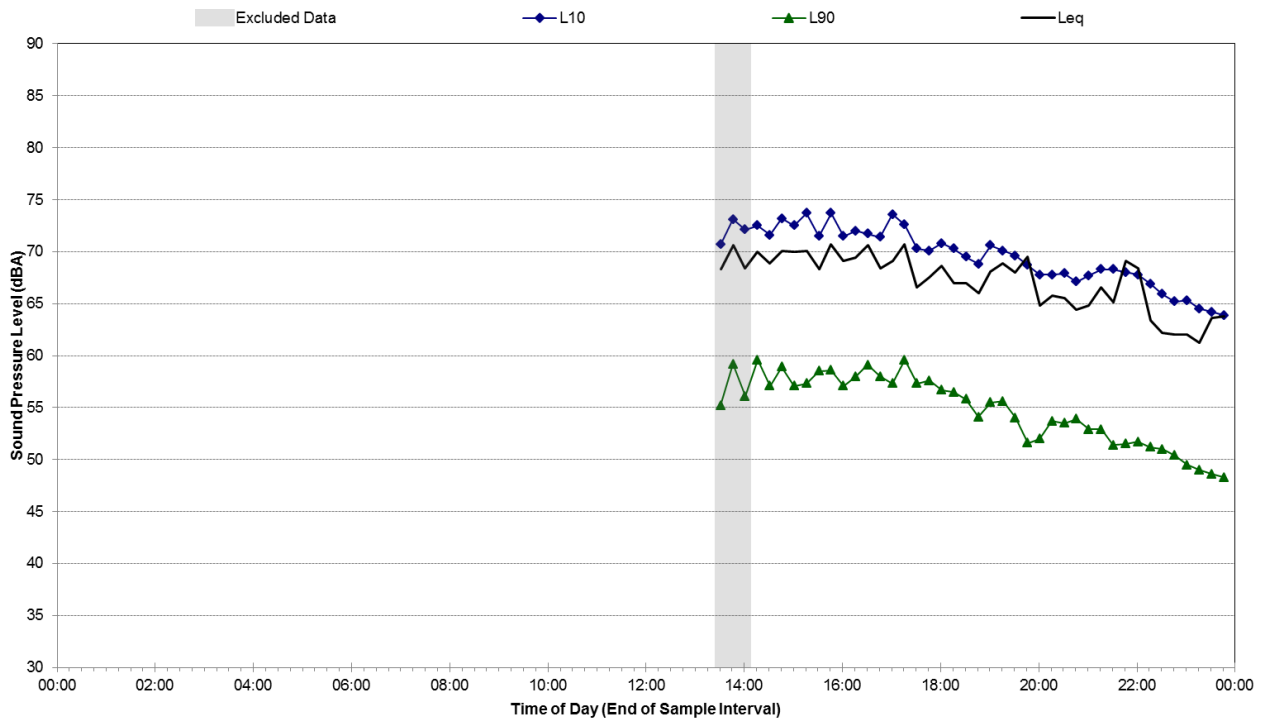
5 CONCLUSION

SLR has conducted a noise and vibration site survey of the existing waster transfer terminal at the corner of 14 Beauchamp Road and 34-36 McPherson Street, Banksmeadow. According to the measurement results, the following comments are made:

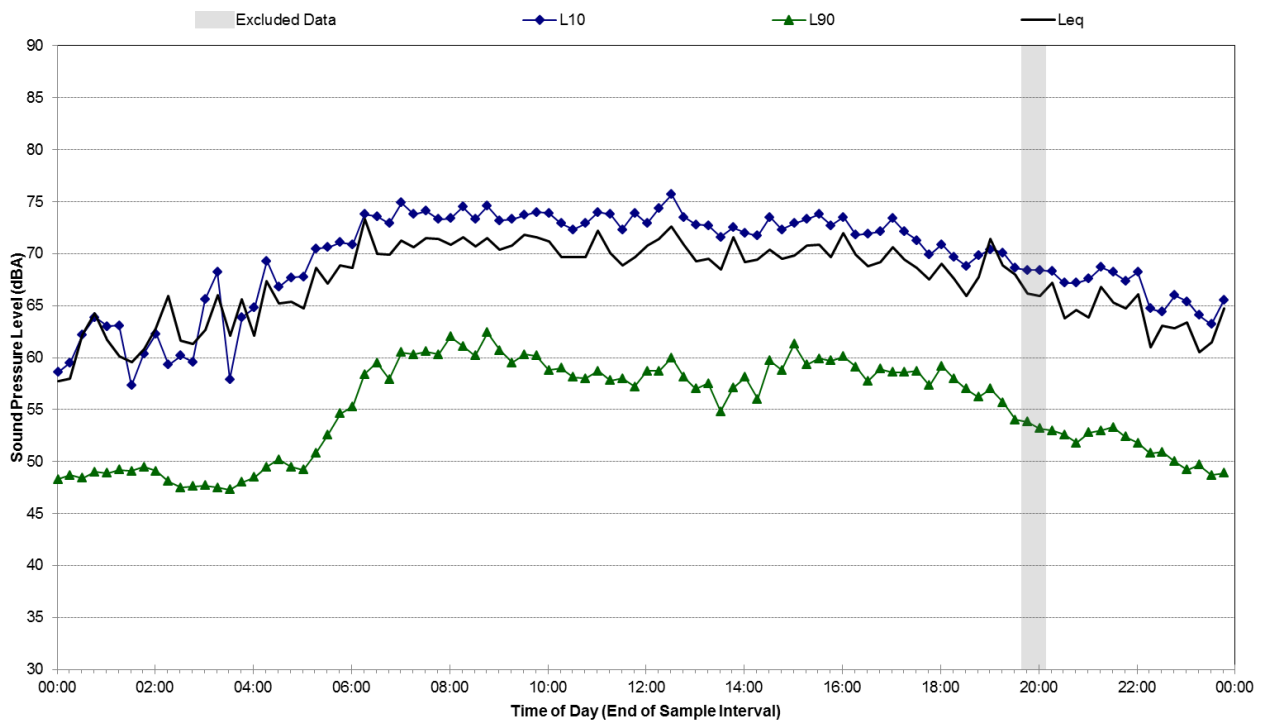
- Offsite noise emissions comply with noise criteria.
- Onsite plant and equipment Sound Power Levels (SWLs) comply with the SWL goals.
- Vibration levels at residential receivers comply with the vibration criteria.

Based upon the findings of this assessment, the BTT site is in compliance with the criteria determined in NVMP.

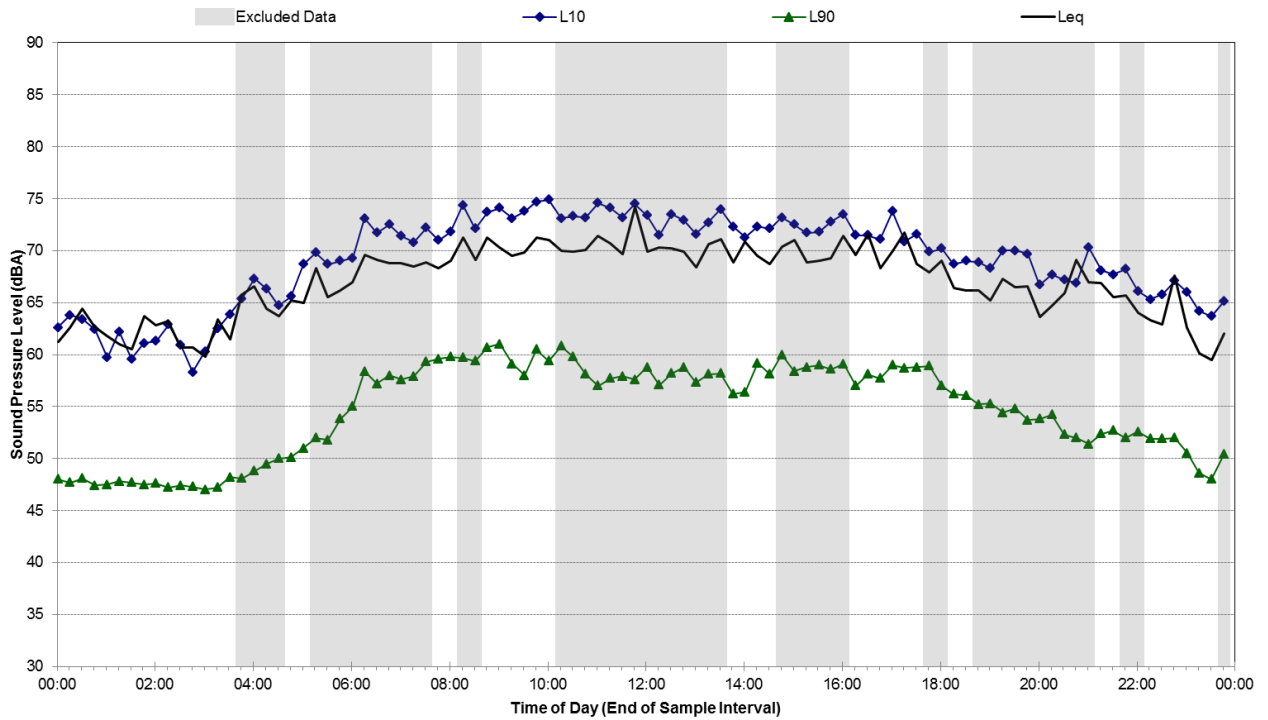
Statistical Ambient Noise Levels Location One - Wednesday, 9 August 2017



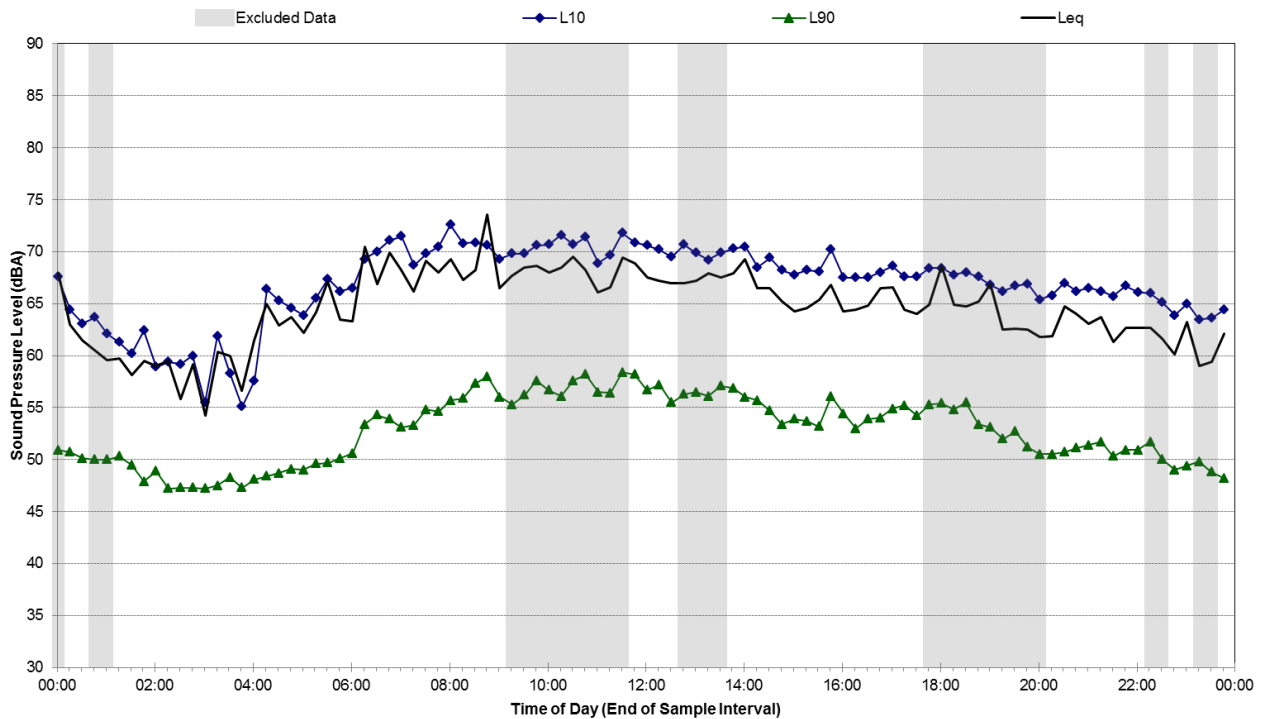
Statistical Ambient Noise Levels Location One - Thursday, 10 August 2017



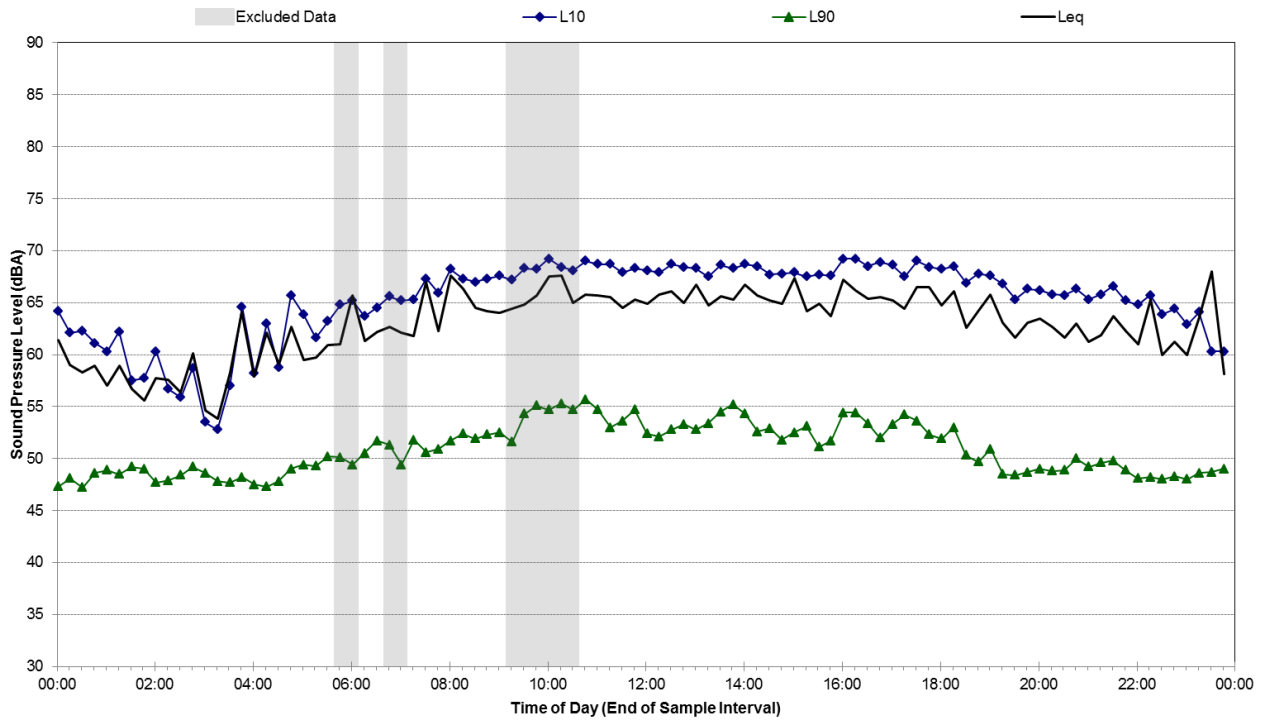
Statistical Ambient Noise Levels Location One - Friday, 11 August 2017



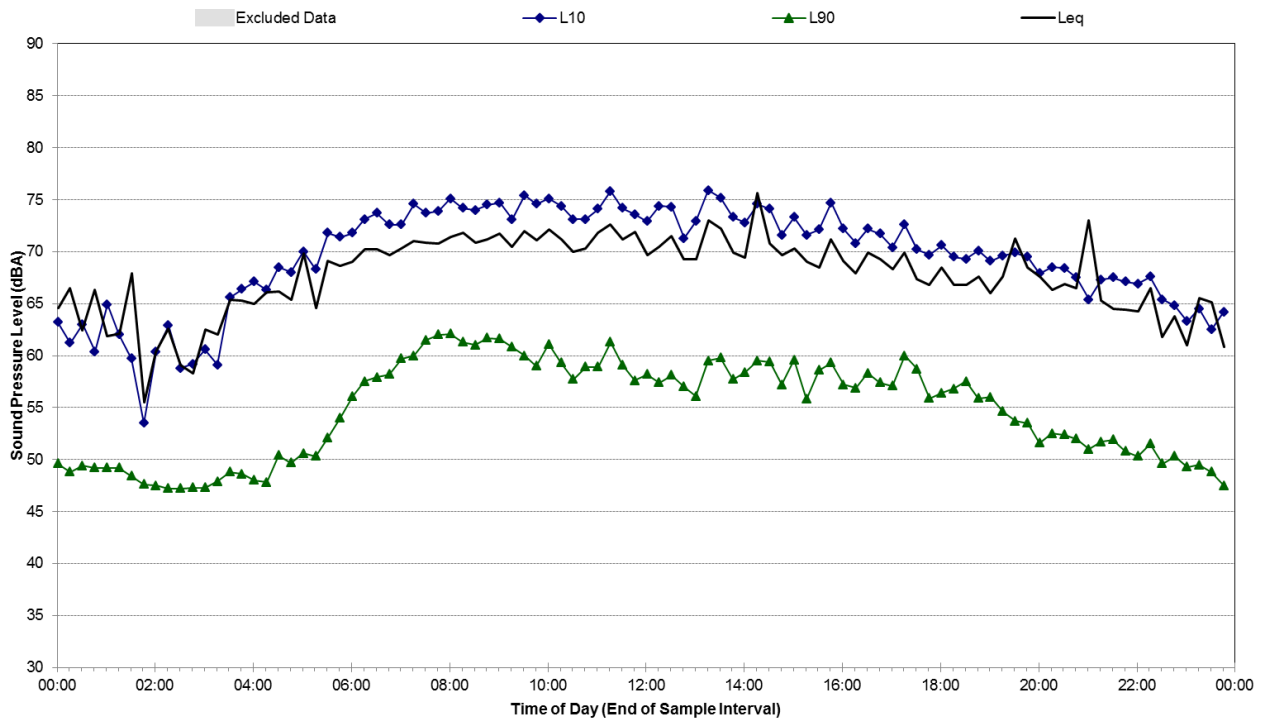
Statistical Ambient Noise Levels Location One - Saturday, 12 August 2017



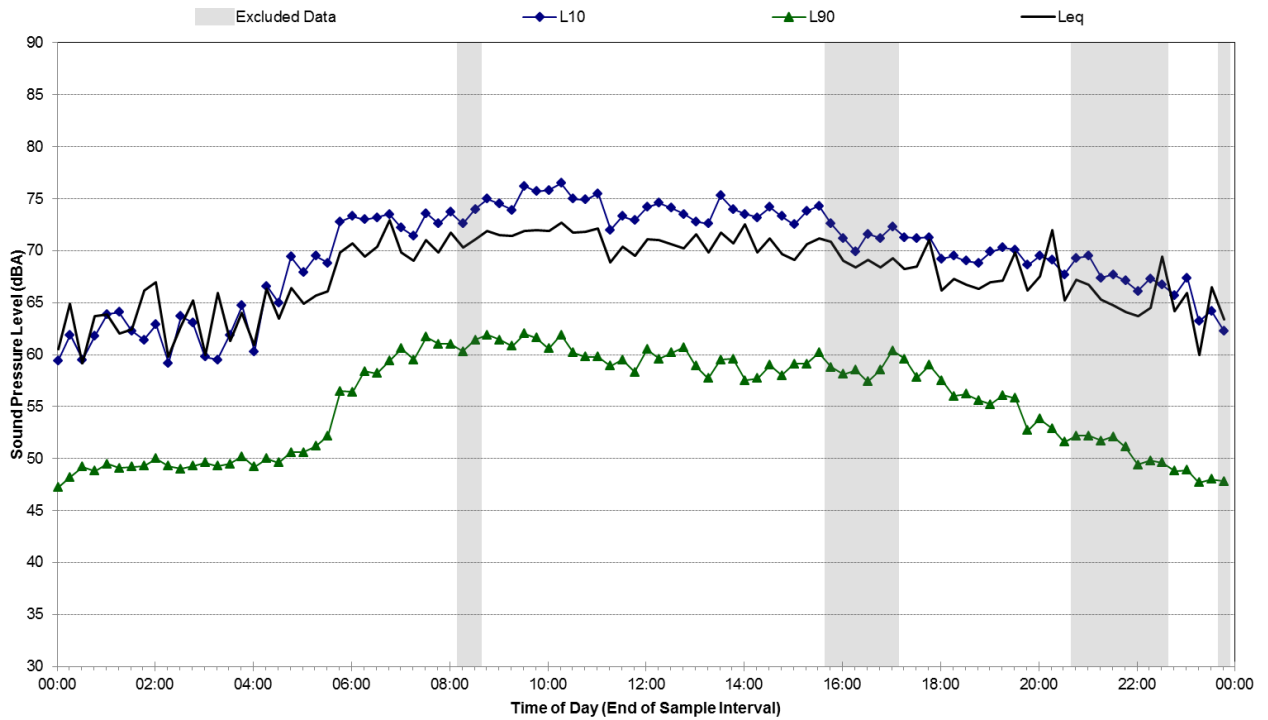
Statistical Ambient Noise Levels Location One - Sunday, 13 August 2017



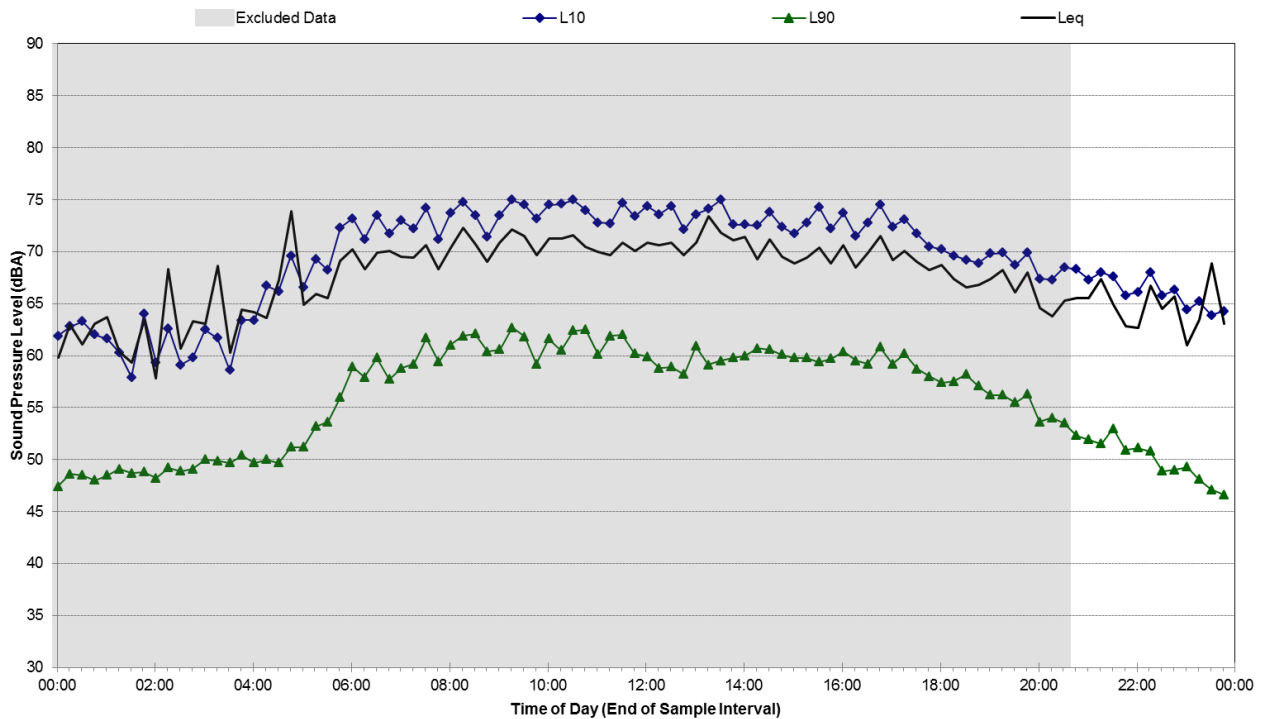
Statistical Ambient Noise Levels Location One - Monday, 14 August 2017



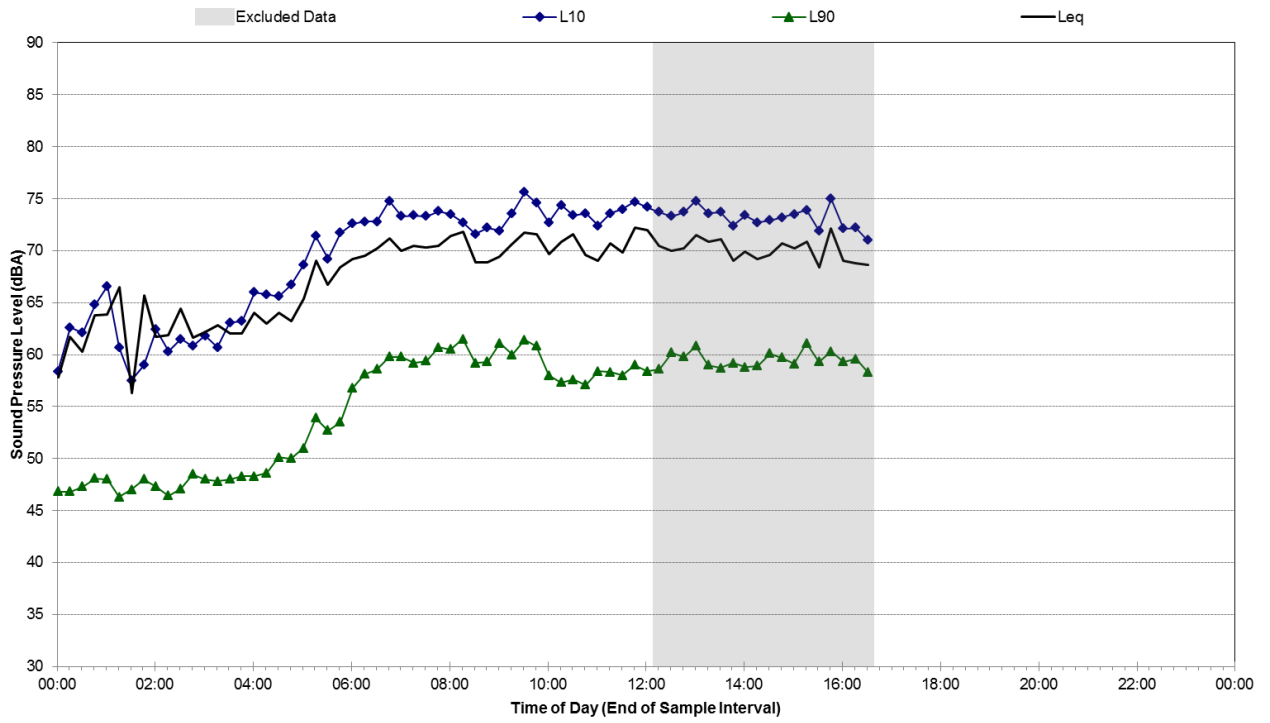
Statistical Ambient Noise Levels Location One - Tuesday, 15 August 2017



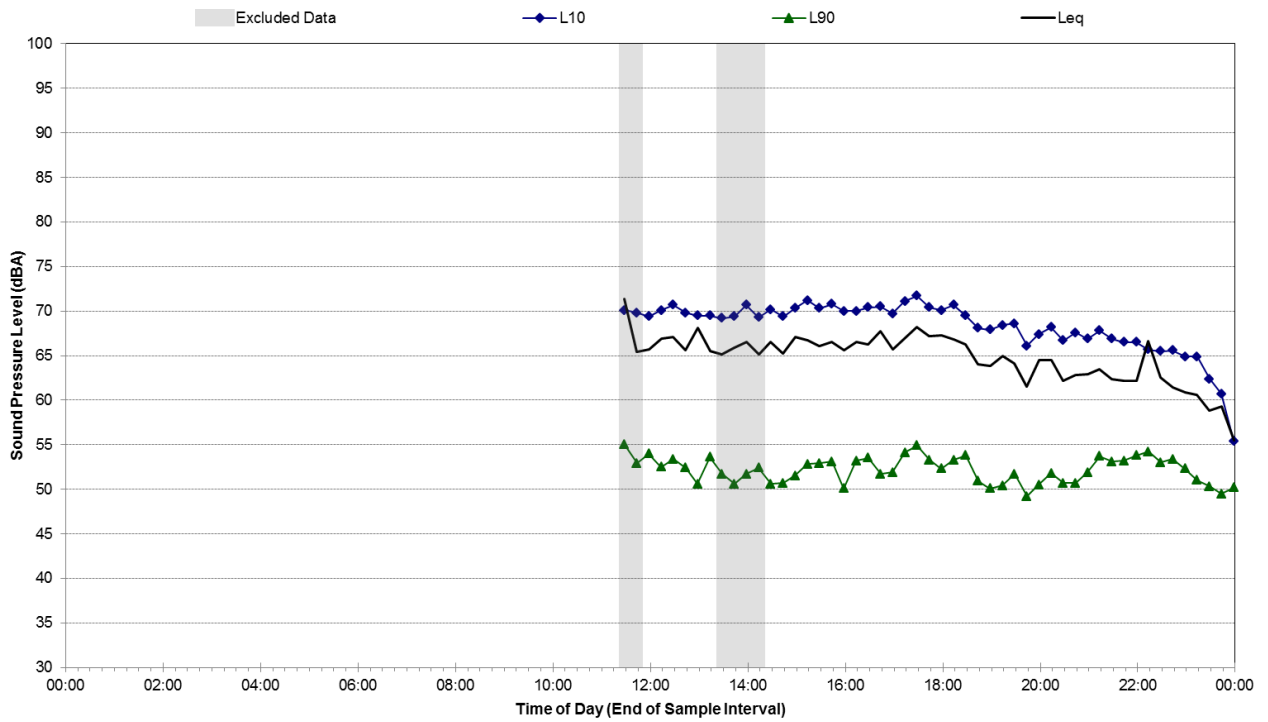
Statistical Ambient Noise Levels Location One - Wednesday, 16 August 2017



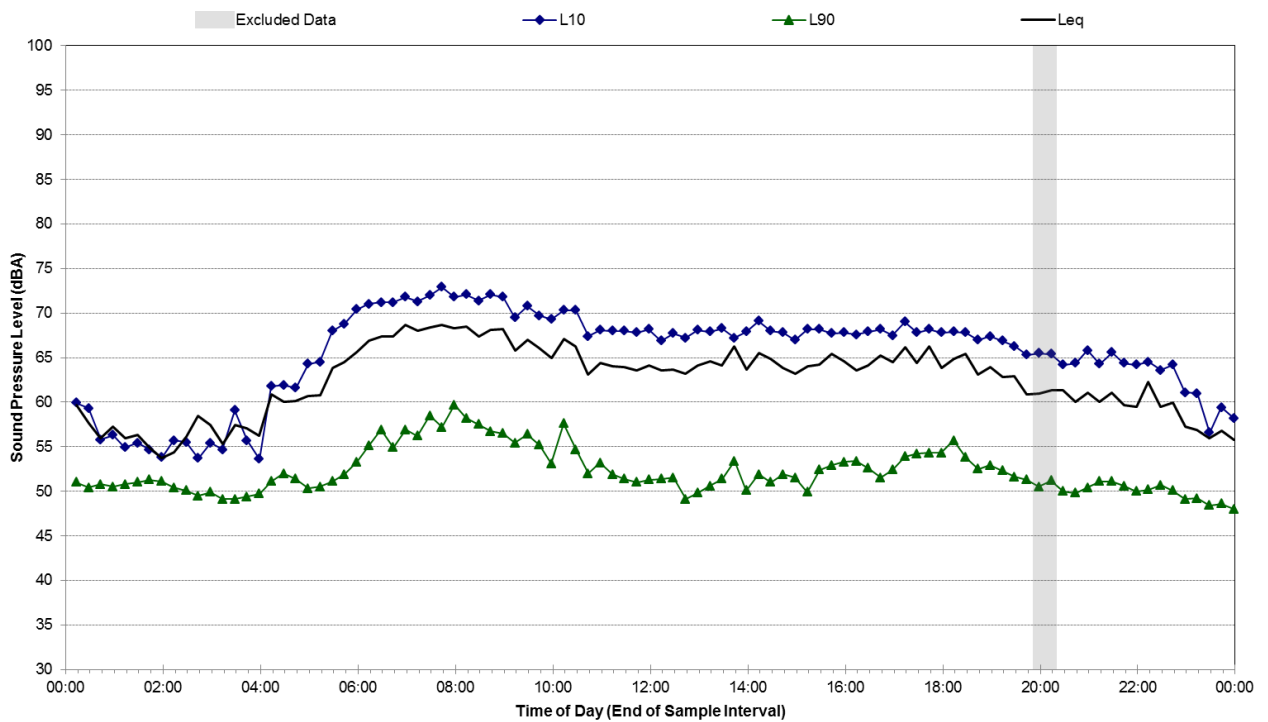
Statistical Ambient Noise Levels Location One - Thursday, 17 August 2017



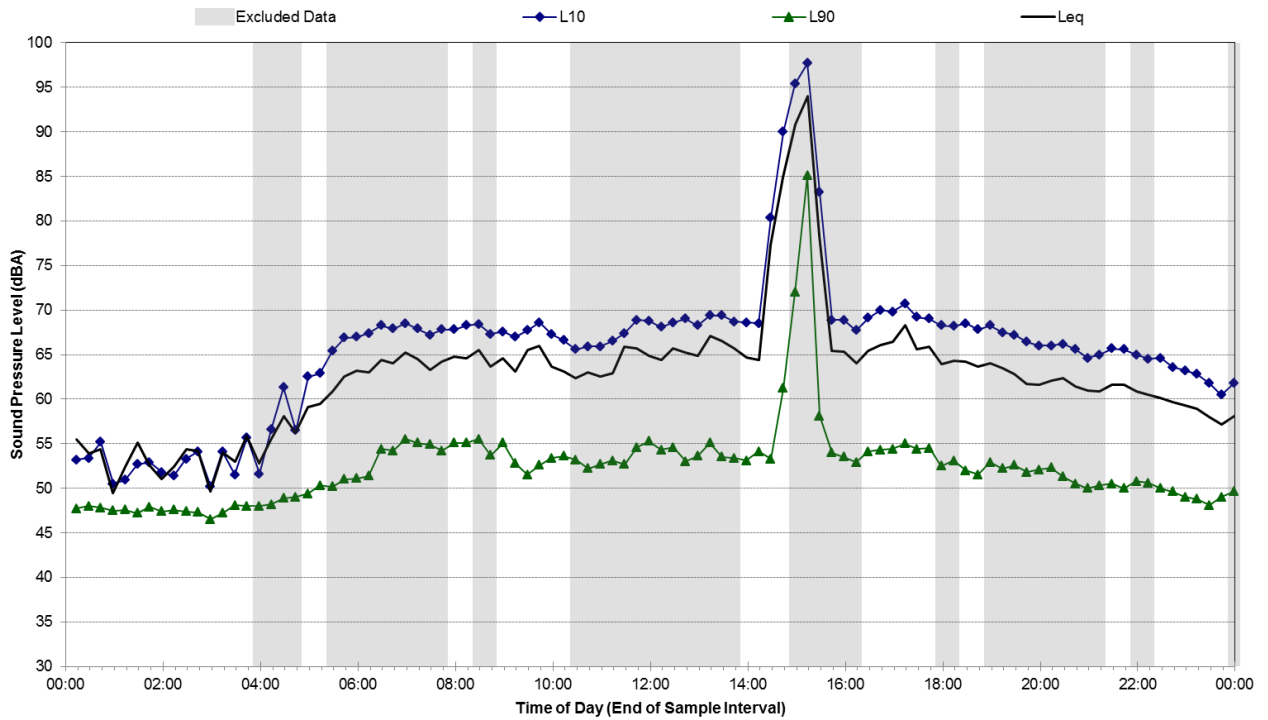
Statistical Ambient Noise Levels Location Two - Wednesday, 9 August 2017



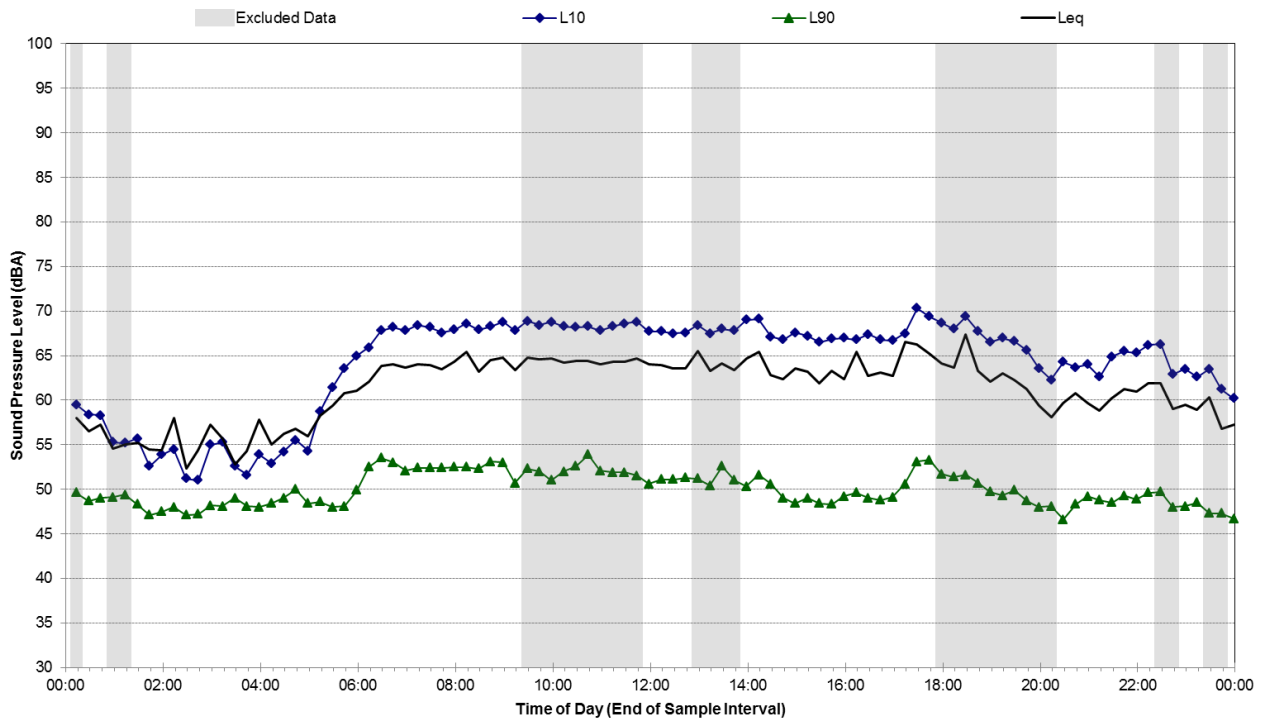
Statistical Ambient Noise Levels Location Two - Thursday, 10 August 2017



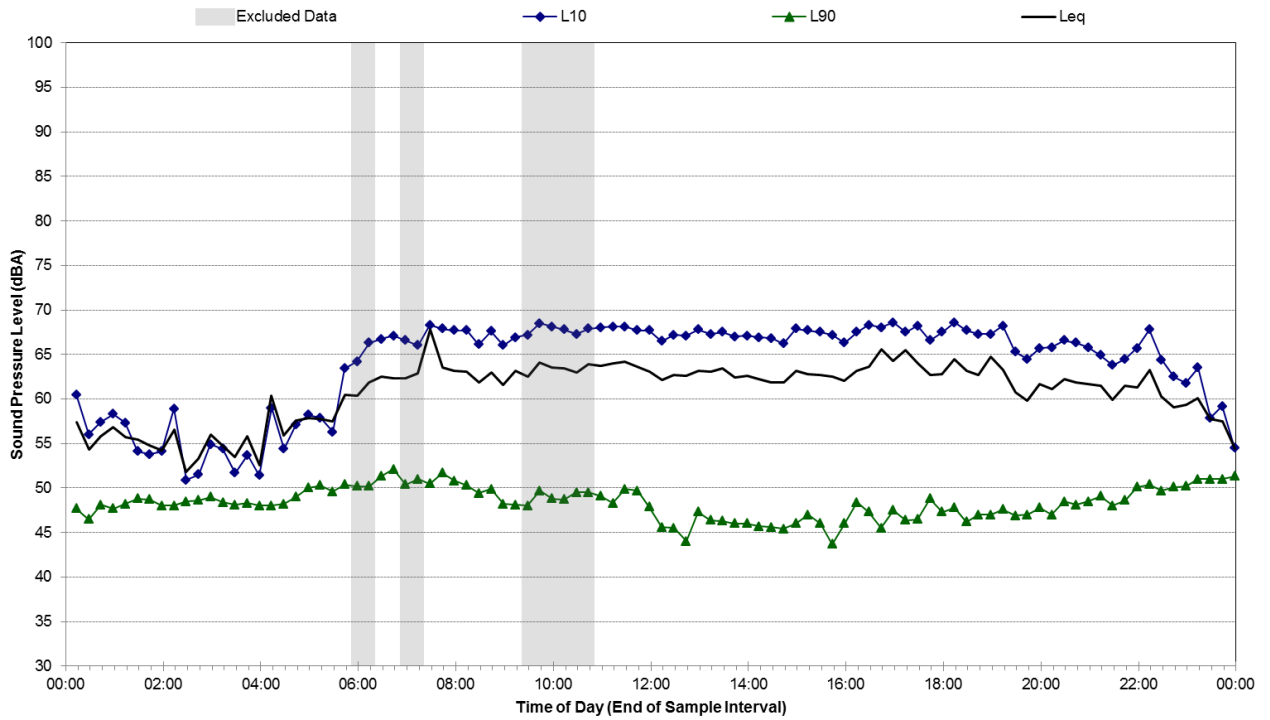
Statistical Ambient Noise Levels Location Two - Friday, 11 August 2017



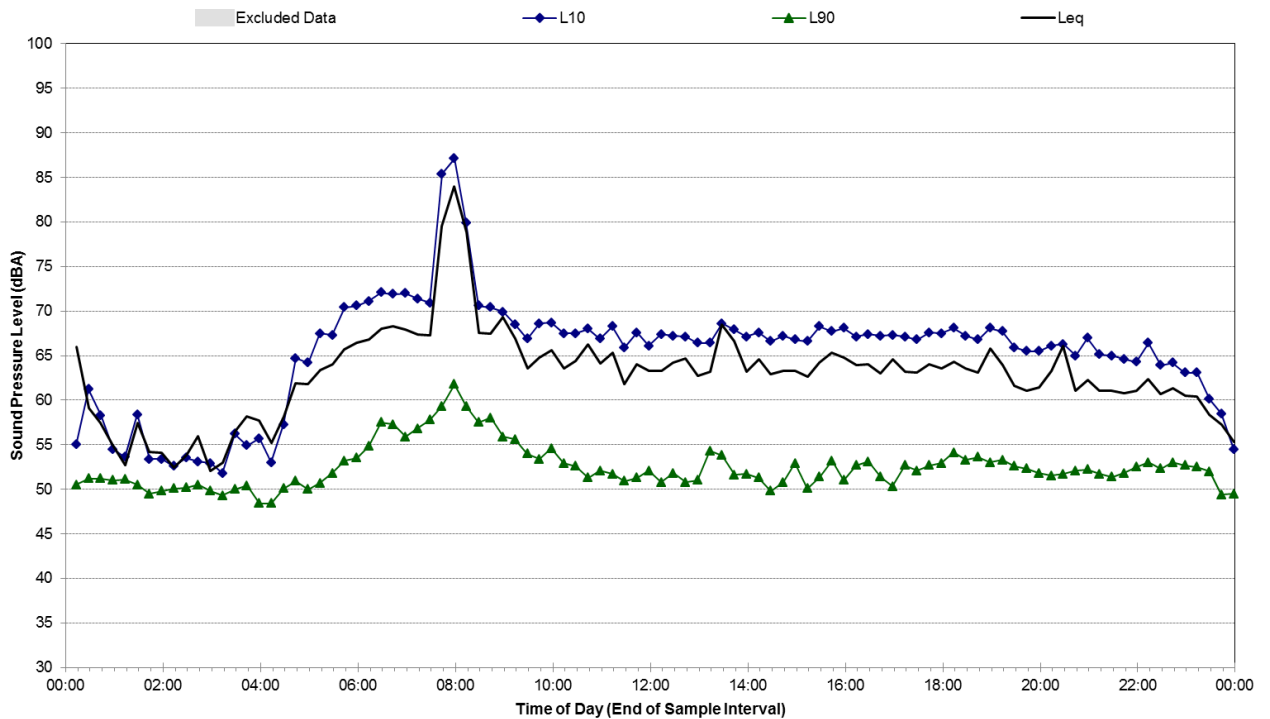
Statistical Ambient Noise Levels Location Two - Saturday, 12 August 2017



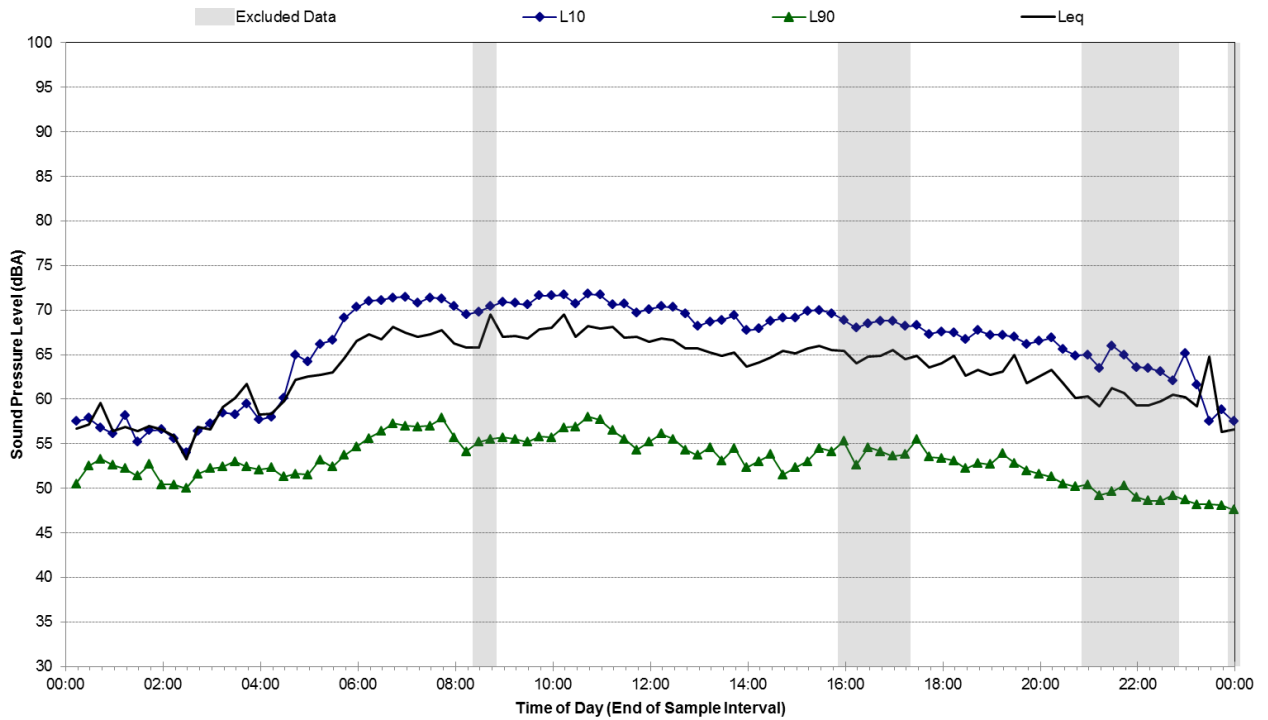
Statistical Ambient Noise Levels Location Two - Sunday, 13 August 2017



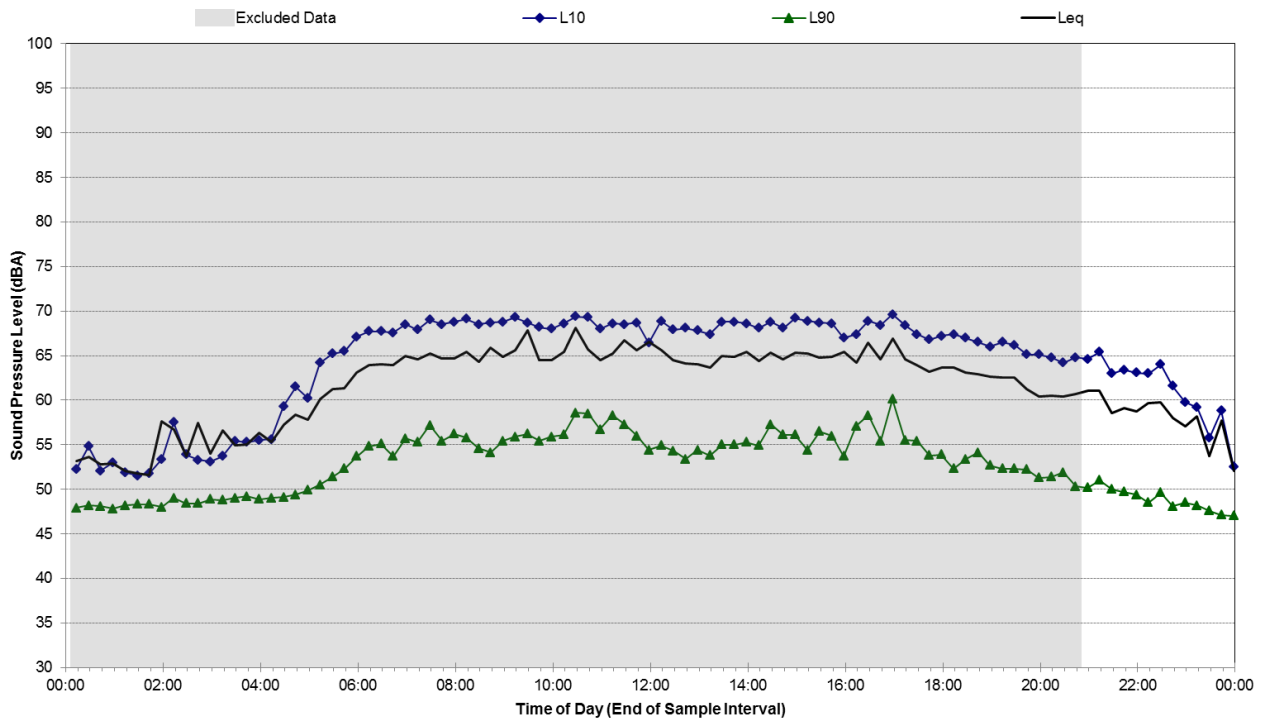
Statistical Ambient Noise Levels Location Two - Monday, 14 August 2017



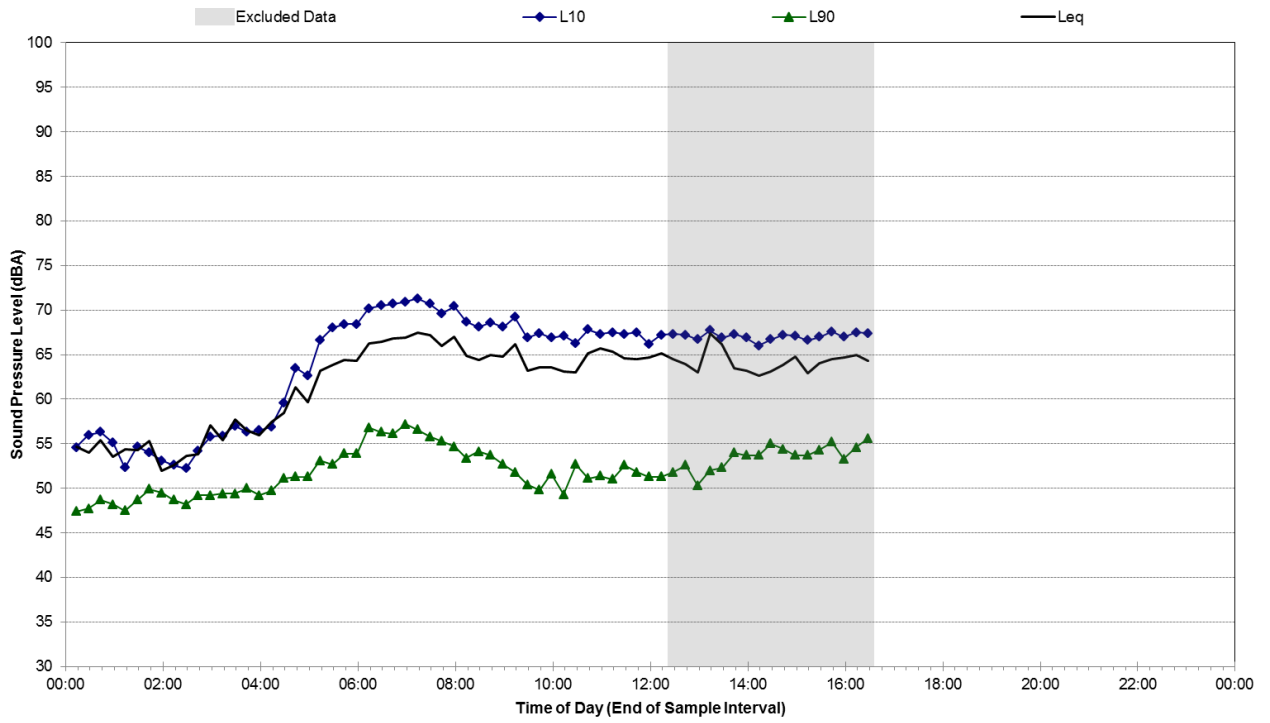
Statistical Ambient Noise Levels Location Two - Tuesday, 15 August 2017



Statistical Ambient Noise Levels Location Two - Wednesday, 16 August 2017



Statistical Ambient Noise Levels Location Two - Thursday, 17 August 2017



Appendix E – Pest Control Records

SERVICE REPORT

16/06/2017

Service Performed by:

EXPERT JUDGEMENT

Service No: 9224

PEST MANAGEMENT PTY LTD

PO Box A25, ENFIELD SOUTH NSW 2133

enquiries@expertjudgementpest.com.au

Telephone: (02) 9715 5270

Fax: (02) 9715 5370

ABN 63 081 548 861

Property Detail: Veolia Environmental Services (Australia) Pty Ltd
Banksmeadow Transfer Terminal
34-36 Mcpherson St
BANKSMEADOW NSW 2019

Service Details: A quarterly pest control service to for cockroaches
ants, spiders and rodents.
Inspected and treated offices, staff rooms, kitchen,
toilets and weighbridge by using Goliath cockroach gel.
Inspected and treated compact areas, shed and
external areas by using Roban rodent bait,
waterproof rodent bait stations and Cislin 25 spray.

SERVICE REPORT

16/10/2017

Service Performed by:

EXPERT JUDGEMENT

Service No: 9389

PEST MANAGEMENT PTY LTD

PO Box A25, ENFIELD SOUTH NSW 2133

enquiries@expertjudgementpest.com.au

Telephone: (02) 9715 5270

Fax: (02) 9715 5370

ABN 63 081 548 861

Property Detail: Veolia Environmental Services (Australia) Pty Ltd
Banksmeadow Transfer Terminal
34-36 Mcpherson St
BANKSMEADOW NSW 2019

Service Details: A quarterly pest control service to for cockroaches
ants, spiders and rodents.

Inspected and treated offices, staff rooms, kitchen,
toilets and weighbridge by using Goliath cocroach gel.

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

Rodent activity found in compact and shed areas
which was treated by using Roban rodent bait.

SERVICE REPORT

15/02/2018

Service Performed by:

EXPERT JUDGEMENT

Service No: 9533

PEST MANAGEMENT PTY LTD

PO Box A25, ENFIELD SOUTH NSW 2133

enquiries@expertjudgementpest.com.au

Telephone: (02) 9715 5270

Fax: (02) 9715 5370

ABN 63 081 548 861

Property Detail: Veolia Environmental Services (Australia) Pty Ltd
Banksmeadow Transfer Terminal
34-36 Mcpherson St
BANKSMEADOW NSW 2019

Service Details: A quarterly pest control service to for cockroaches
ants, spiders and rodents.
Inspected and treated offices, staff rooms, kitchen,
toilets and weighbridge by using Goliath cocroach gel.
Inspected and treated compact areas, shed and
external areas by using Roban rodent bait and
Cislin 25 spray.
Rodent activity and redback spider found in shed/external
areas which were treated by using Roban rodent bait
and Cislin 25 spray.

SERVICE REPORT

30/05/2018

Service Performed by:

EXPERT JUDGEMENT

PEST MANAGEMENT PTY LTD

PO Box A25, ENFIELD SOUTH NSW 2133

enquiries@expertjudgementpest.com.au

Telephone: (02) 9715 5270

Fax: (02) 9715 5370

ABN 63 081 548 861

Property Detail: Veolia Environmental Services (Australia) Pty Ltd
Banksmeadow Transfer Terminal
34-36 Mcpherson St
BANKSMEADOW NSW 2019

Service Details: A quarterly pest control service to for cockroaches
ants, spiders and rodents.
Inspected and treated offices, staff rooms, kitchen,
toilets and weighbridge by using Goliath cocroach gel.
Inspected and treated compact areas, shed and
external areas by using Roban rodent bait and
Cislin 25 spray.

Appendix F –Photos of Waste Shed Modification Works

Appendix X – Photographs of Odour Mitigation works at the Terminal



Figure 1- Sealed southern breezeway of the waste shed at the Terminal



Figure-2 - Sealed South-eastern breezeway of waste shed at the Terminal



Figure 3 - A view of the completed sealing up of the gap opening between the interface of the waste floor and compactor pit areas at the Terminal

Appendix G – BTT Complaints Register

Date	Time	Method	Person Details	Nature of the Odour	Action taken by Veolia	Follow-up contact	Further Action taken by Veolia (if not, then explanation why added to commentary)
1/05/2017	9:05	Phone	Nimesh Desai/Ben Lim - Orica (IXOM) control room ben_lim@orica.com nimesh.desai@ixom.com	Odour Complaint	The odour control system fan speed was turned down following odour complaint. Prior to the complaint, the winds were coming from the north-west direction until 8:30am which is not consistent with previous odour complaints. Wind speed at time of complaint (9:00): 11 km/hr Wind direction at time of complaint: West-South-West	Follow-up contact with the complainant indicating adjustments made to the fan speed settings.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
15/05/2017	21:06	Phone	Nimesh Desai/Ben Lim - Orica (IXOM) control room ben_lim@orica.com nimesh.desai@ixom.com	Odour Complaint Winds were prevailing from the SW direction	The odour control system fan had been turned off at 15:30 on the 15 May, and remained off at the time of the odour complaint. Wind speed at time of complaint (21:06): 15km/hr Wind direction at time of complaint: West-South-West	Follow-up contact with the complainant indicating the current status of the fan speed.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
15/05/2017	23:30	Phone	Nimesh Desai/Ben Lim - Orica (IXOM) control room ben_lim@orica.com nimesh.desai@ixom.com	Odour Complaint	The odour control system fan had been turned off at 15:30 on 15 May, and remained off at the time of the second odour complaint received on the same day. Wind speed at time of complaint (23:30): 24km/hr Wind direction at time of complaint: West	Follow-up contact with the complainant at 4:20 on the 16 May where IXOM noted there were no current odour issues. It was also noted that there was little to no wind at around 22:00 when the odour was observed.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
21/07/2017	7:06	Phone	Nimesh Desai/Ben Lim - Orica (IXOM) control room ben_lim@orica.com nimesh.desai@ixom.com	Odour Complaint	The odour control system fan had been running at full speed (55Hz) at the time the odour complaint was received, and the fans were turned down. Wind speed at time of complaint (23:30): 32km/hr Wind direction at time of complaint: West-South-West	Follow-up contact with the complainant t 8:17am confirmed the odour had reduced.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
6/09/2017	9:45	Phone	Chris Currey - Orica (IXOM) control room chris.currey@orica.com	Odour Complaint	The odour control system fan had been running at full speed (55Hz) at the time the odour complaint was received, and the fans were turned off. Wind speed at time of complaint (09:45): 33km/hr Wind direction at time of complaint: West	No return call was made indicating the odour had stopped so no further follow up contact was required.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
13/09/2017	22:30	Phone	Sebastian - Orica (IXOM) control room	Odour Complaint	The odour control system fan had been running at full speed (55Hz) at the time the odour complaint was received, and the fans were turned off. Wind speed at time of complaint (22:30): 28km/hr Wind direction at time of complaint: West-South-West	No return call was made indicating the odour had stopped so no further follow up contact was required.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
14/09/2017	8:24	Phone	Chris Currey - Orica (IXOM) control room chris.currey@orica.com	Odour Complaint	The odour control system fan had been turned back on to full speed (55Hz) prior to odour complaint, and was turned off following receipt of complaint. Wind speed at time of complaint (08:24): 43km/hr Wind direction at time of complaint: West-South-West	No return call was made indicating the odour had stopped so no further follow up contact was required.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
14/09/2017	15:45	Phone	John Van Zanen - Orica (IXOM) control room John.vanzanen@orica.com	Odour Complaint	The odour control system fan was mid speed at the time of the complaint and was turned to full speed (55Hz) following the odour complaint. On the day of the complaint one compactor was down and the waste shed was full of waste. Wind speed at time of complaint (15:30): 39km/hr Wind direction at time of complaint: West	No return call was made indicating the odour had stopped so no further follow up contact was required.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
15/09/2017	14:00	Phone	Sebastian - Orica (IXOM) control room	Odour Complaint	The odour control system fan had been running at full speed (55Hz) at the time the odour complaint was received, and the fans were turned off. Wind speed at time of complaint (14:00): 30km/hr Wind direction at time of complaint: West	No return call was made indicating the odour had stopped so no further follow up contact was required.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.

27/09/2017	8:30	Phone	Steve Barclay - Orica (IXOM) control room Steve.barclay@orica.com	Odour Complaint	The odour control system fan had been running at full speed (55Hz) at the time the odour complaint was received, and were turned off. Wind speed at time of complaint (08:30): 20km/hr Wind direction at time of complaint: West-South-West	No return call was made indicating the odour had stopped so no further follow up contact was required.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
1/11/2017	8:30	Email	Steve Barclay - Orica (IXOM) control room Steve.barclay@orica.com	Odour Complaint	The odour control system fan had been running at full speed (55Hz) at the time the odour complaint was received, and were turned off. The Site Manager also attempted to mobilise the Odour Unit to conduct a field odour assessment at IXOM however no personnel were available. Wind speed at time of complaint (08:30): 22km/hr Wind direction at time of complaint: West-South-West	No return call was made indicating the odour had stopped so no further follow up contact was required.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
7/11/2017	8:30	Email	Peter Englert - Huntsman Corporation Australia Pty Ltd Peter_Englert@huntsman.com + 61 2 8304 4120	Odour Complaint	The odour control system fan had been running at full speed (55Hz) at the time the odour complaint was received, and were turned off. Wind speed at time of complaint (08:30): 33.5km/hr Wind direction at time of complaint: South-South-West	No return call was made indicating the odour had stopped so no further follow up contact was required. Likely odour coming from full containers being stored on the container storage area longer than standard operations due to train strikes.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
8/11/2017	7:33	Email	Peter Englert - Huntsman Corporation Australia Pty Ltd Peter_Englert@huntsman.com + 61 2 8304 4120	Odour Complaint	The odour control system fan had been running at full speed (55Hz) at the time the odour complaint was received, and were turned off. Wind speed at time of complaint (07:30): 32km/hr Wind direction at time of complaint: South	No return call was made indicating the odour had stopped so no further follow up contact was required. Likely odour coming from full containers being stored on the container storage area longer than standard operations due to train strikes.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
10/11/2017	10:00	Email	Peter Englert - Huntsman Corporation Australia Pty Ltd Peter_Englert@huntsman.com + 61 2 8304 4120	Odour Complaint	The odour control system fan had been running at full speed (55Hz) at the time the odour complaint was received, and were turned off. Wind speed at time of complaint (10:00): 3km/hr Wind direction at time of complaint: North-East	No return call was made indicating the odour had stopped so no further follow up contact was required. Likely odour coming from full containers being stored on the container storage area longer than standard operations due to train strikes.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
15/11/2017	8:59	Email	Peter Englert - Huntsman Corporation Australia Pty Ltd Peter_Englert@huntsman.com + 61 2 8304 4120	Odour Complaint	The odour control system fan had been running at full speed (55Hz) at the time the odour complaint was received, and were turned off. Wind speed at time of complaint (08:30): 0km/hr Wind direction at time of complaint: Calm	No return call was made indicating the odour had stopped so no further follow up contact was required. Likely odour coming from full containers being stored on the container storage area longer than standard operations due to train strikes. Containers to be fully cleared today.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
28/11/2017	8:00	Email	Peter Englert - Huntsman Corporation Australia Pty Ltd Peter_Englert@huntsman.com + 61 2 8304 4120	Odour Complaint	The odour control system fan had been running at full speed (55Hz) at the time the odour complaint was received, and were turned off. Wind speed at time of complaint (08:00): 17km/hr Wind direction at time of complaint: South-South-East	Complainant was requested to call back in 1 hour if no improvement, no call back received.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
4/12/2017	17:00	Email	Steve Barclay - Orica (IXOM) control room Steve.barclay@orica.com	Odour Complaint	The complaint was made the following day therefore no responsive action was taken in relation to this complaint.	Complaint was made the following day therefore no follow up required.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.

					Wind speed at time of complaint (17:00): 20km/hr Wind direction at time of complaint: South-South-West		
5/12/2017	8:00	Email	Steve Barclay - Orica (IXOM) control room Steve_barclay@orica.com	Odour Complaint	The odour control system fan had been running at full speed (55Hz) at the time the odour complaint was received, and remained at the same speed. Wind speed at time of complaint (08:00): 33km/hr Wind direction at time of complaint: South-South-West	No return call was made indicating the odour had stopped so no further follow up contact was required.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
8/12/2017	7:30	Phone	Steve Barclay - Orica (IXOM) control room Steve_barclay@orica.com	Odour Complaint	The odour control system fan had been running at full speed (55Hz) at the time the odour complaint was received and remained at the same speed. Wind speed at time of complaint (07:30): 17km/hr Wind direction at time of complaint: South-South-West	Return call from the complainant at 9:30am indicating the odour had stopped.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
13/12/2017	7:30	Email	Peter Englert - Huntsman Corporation Australia Pty Ltd Peter_Englert@huntsman.com + 61 2 8304 4120	Odour Complaint	The odour control system fan had been running at full speed (55Hz) at the time the odour complaint was received and remained at the same speed. Wind speed at time of complaint (07:30): 6km/hr Wind direction at time of complaint: North-North-West	No return call was made indicating the odour had stopped so no further follow up contact was required.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
15/12/2017	7:00	Phone	Steve Barclay - Orica (IXOM) control room Steve_barclay@orica.com	Odour Complaint	The odour control system fan had been running at full speed (55Hz) at the time the odour complaint was received, and were turned off. Wind speed at time of complaint (07:00): 39km/hr Wind direction at time of complaint: South	No return call was made indicating the odour had stopped so no further follow up contact was required.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
15/12/2017	4:00am	Letter	Unidentified source	The Environment Protection Authority (EPA) received an odour complaint from an unidentified source	Veolia provided a response to the EPA on the 22 Dec 2017 on the following questions: 1. How much waste was on the floor in the building at 4am on 15-12-17? 2. How many shipping containers filled with waste were stored outside at the Premises at 4am on 15-12-17? 3. When did the train leave the facility on 15-12-17? 4. Were any other activities occurring at the premises that could cause odours on 15-12-17?	The complaint was received from an unidentified source therefore no follow-up contact was required.	Veolia BTT will continue to monitor and communicate with stakeholders.
16/12/2017	7:30	Email	Peter Englert - Huntsman Corporation Australia Pty Ltd Peter_Englert@huntsman.com + 61 2 8304 4120	Odour Complaint	The odour control system fan had been running at full speed (55Hz) at the time the odour complaint was received. The complaint was made two days after therefore no responsive action was taken in relation to this complaint. Wind speed at time of complaint (07:30): 7km/hr Wind direction at time of complaint: West-North-West	Complaint was made two days after therefore no follow up required.	Veolia increased the fan speed from 25Hz to 50Hz on 18 December. The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
25/12/2017	16:48	Email	Peter Englert - Huntsman Corporation Australia Pty Ltd Peter_Englert@huntsman.com + 61 2 8304 4120	Odour Complaint	The complaint requested confirmation the complaints were being lodged with the EPA and to provide details of an action plan of how Veolia intends to solve this problem. Wind data not available by the time the complainant was received.	Complaint was made one week after therefore no follow up required.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
2/01/2018	9:00	Phone	Steve Barclay - Orica (IXOM) control room Steve_barclay@orica.com	Odour Complaint	The odour control system fan had been running at full speed (55Hz) at the time the odour complaint was received. Wind speed at time of complaint (09:00): 17km/hr Wind direction at time of complaint: South	No return call was made indicating the odour had stopped so no further follow up contact was required.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters. The Odour Unit is scheduled to complete an odour assessment at the complainant's site on Friday 5 January.
3/01/2018	11:00	Phone	Kevin Starling -Orica (IXOM) Groundwater Treatment Plant	Odour Complaint	The odour control system fan had been running at full speed (55Hz) at the time the odour complaint was received.	Complainant was requested to call back in 1 hour if no improvement, no call back received.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters. The Odour Unit is scheduled to complete an odour assessment at the complainant's site on Friday 5 January.

					Wind speed at time of complaint (11:00): 32km/hr Wind direction at time of complaint: South		
16/01/2018	8:30	Phone	Steve Barclay - Orica (IXOM) control room Steve.barclay@orica.com	Odour Complaint	The odour control system fan had been running at full speed at the time the odour complaint was received. Wind speed at time of complaint (8:30): 32km/hr Wind direction at time of complaint: South-South-West	Complaint was made the following day therefore no follow up action required.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
17/01/2018	8:30	Phone	Steve Barclay - Orica (IXOM) control room Steve.barclay@orica.com	Odour Complaint	The odour control system fan had been running at full speed (55Hz) at the time the odour complaint was received. The Site Manager attempted to mobilise the Odour Unit to conduct a field odour assessment at IXOM however no personnel were available. Wind speed at time of complaint (8:30): 37km/hr Wind direction at time of complaint: South-South-West	No return call was made indicating the odour had stopped so no further follow up contact was required.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
1/02/2018	10:00	Phone	Steve Barclay - Orica (IXOM) control room Steve.barclay@orica.com	Odour Complaint	The odour control system fan had been running at full speed (55Hz) at the time the odour complaint was received. It was noted that the waste shed had approximately 400 tonnes on the floor at the time of the complaint due to on-site maintenance activities. Wind speed at time of complaint (10:00): 28km/hr Wind direction at time of complaint: South-South-West	Complainant was requested to call back in 1 hour if no improvement, no call back received.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
5/02/2018	4:30	Phone	Sebastian - Orica (IXOM) control room Steve.barclay@orica.com	Odour Complaint	The odour control system fan had been running at full speed (55Hz) at the time the odour complaint was received, and was turned off. It was noted that the waste shed had approximately 180 tonnes on the floor at the time the complaint was received. Wind speed at time of complaint (4:30): 13km/hr Wind direction at time of complaint: West-South-West	Complainant was requested to call back in 1 hour if no improvement, no call back received.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
6/02/2018	5:10	Phone	Steve Barclay - Orica (IXOM) control room Steve.barclay@orica.com	Odour Complaint	The odour control system fan had been running at full speed (55Hz) at the time the odour complaint was received. It was noted that the waste shed had less than 30 tonnes on the floor and there were approximately 40 boxes stored on the hardstand at the time the complaint was received. Wind speed at time of complaint (5:10): 9km/hr Wind direction at time of complaint: West-South-West	Complainant was requested to call back in 1 hour if no improvement, no call back received.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
16/02/2018	7:40	Phone	Steve Barclay - Orica (IXOM) control room Steve.barclay@orica.com	Odour Complaint	The odour control system fan had been running at full speed (55Hz) at the time the odour complaint was received and was switched off. Wind speed at time of complaint (7:40): 27 km/hr Wind direction at time of complaint: South-West	Complainant was requested to call back in 1 hour if no improvement. Wind changed to SSE at noon and fans were turned back on.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
6/03/2018	Not specified	Letter	Randwick City Council on behalf of Councillors	On 6 March 2018, EPA received correspondence from Randwick City Council regarding odour	A site meeting was arranged with the EPA for the 21/3/2018 to discuss odour management at the Premises and future works to address the issue.	Veolia submitted a Pollution Reduction Plan (PRP) to the EPA on the 29 Mar 2018.	
9/03/2018	7:26	Phone	Steve Barclay - Orica (IXOM) control room Steve.barclay@orica.com	Odour Complaint	The odour control system fan had been running at full speed (55Hz) at the time the odour complaint was received and was switched off. It was noted approximately 90 tonnes were on the floor and approximately 20 full boxes were being stored on the container storage area. Wind speed at time of complaint (7:26): 23 km/hr Wind direction at time of complaint: South	Complainant was requested to call back in 1 hour if no improvement. The complainant was informed the fans had been turned off. Veolia personnel noted on a site walk over that the Bingo pit had a strong odour.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.

17/03/2018	8:00	Phone	Steve Barclay - Orica (IXOM) control room Steve_barclay@orica.com	Odour Complaint	The odour control system fan had been running at full speed (55Hz) at the time the odour complaint was received and was switched off. It was noted no waste was on the floor and approximately 30 full boxes were being stored on the container storage area. Wind direction at time of complaint: Nil	The complainant was called back at 1:00 where it was confirmed the odour was no longer present (wind direction had changed to NE).	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
19/03/2018	8:00	Phone	Steve Barclay - Orica (IXOM) control room Steve_barclay@orica.com	Odour Complaint	The odour control system fan had been running at full speed (55Hz) at the time the odour complaint was received and was switched off. It was noted approximately 200 tonnes of waste was on the floor and approximately 60 full boxes were being stored on the container storage area. Wind direction at time of complaint: West-South-West	Complainant was requested to call back in 1 hour if no improvement, no call back received. The Odour unit attended site and IXOM were advised of smoke testing.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
26/03/2018	11:15	Phone	Sebastian - Orica (IXOM) control room Steve_barclay@orica.com	Odour Complaint	The odour control system fan had been running at full speed (55Hz) at the time the odour complaint was received . It was noted approximately 200 tonnes of waste was on the floor and approximately 60 full boxes were being stored on the container storage area. Wind speed at time of complaint (11:00): 48 km/hr Wind direction at time of complaint: West-South-West	Veolia Site Manager conducted a site walkover at the boundary of BTT. Odour appeared to be coming from stored waste containers.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
27/03/2018	10:00	Phone	Glen Haines - Orica (IXOM) control room Steve_barclay@orica.com	Odour Complaint	The odour control system fan had been running at full speed (55Hz) at the time the odour complaint was received . It was noted the waste shed was empty and approximately 40 full boxes were being stored on the container storage area. Wind speed at time of complaint (10:00): 13 km/hr Wind direction at time of complaint: West-North-West	Complainant was requested to call back in 1 hour if no improvement, no call back received.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
9/04/2018	11:45	Phone	Michael - Orica (IXOM) control room Steve_barclay@orica.com	Odour Complaint	The odour control system fan had been running at full speed (55Hz) and was turned off. It was noted the waste shed contained approximately 350 tonnes of waste (compactor down). Wind speed at time of complaint (11:45): 16 km/hr Wind direction at time of complaint: West	Complainant was requested to call back in 1 hour if no improvement, no call back received.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
26/04/2018	10:15	Phone	Darren - Orica (IXOM) control room Steve_barclay@orica.com	Odour Complaint	The odour control system fan had been running at full speed (55Hz).It was noted the waste shed was had 80 tonnes and approximately 31 full boxes were being stored on the container storage area. The fans were temporarily turned off. Wind speed at time of complaint (10:15): 24 km/hr Wind direction at time of complaint: South-South-West	Complainant was requested to call back in 1 hour if no improvement, no call back received.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
12/05/2018	7:20	Phone	Sebastian - Orica (IXOM) control room Steve_barclay@orica.com	Odour Complaint	The odour control system fan had been running at full speed (55Hz). It was noted the waste shed was had 30 tonnes and approximately 70 full boxes were being stored on the container storage area. The fans were temporarily turned off. Wind speed at time of complaint (7:00): 28 km/hr Wind direction at time of complaint: West-South-West	Complainant was requested to call back in 1 hour if no improvement, no call back received.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
14/05/2018	6:30	Phone	Steve Barclay - Orica (IXOM) control room Steve_barclay@orica.com	Odour Complaint	The odour control system fan had been running at full speed (55Hz) and was temporarily turned off. Wind speed at time of complaint (6:30): 33 km/hr Wind direction at time of complaint: South-West	Complainant was requested to call back in 1 hour if no improvement, no call back received.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.

15/05/2018	10:30	Phone	Marty - Orica (IXOM) control room Steve.barclay@orica.com	Odour Complaint	The odour control system fan had been running at full speed (55Hz). It was noted the waste shed was had 300 tonnes and approximately 35 full boxes were being stored on the container storage area. The fans were temporarily turned off. Wind speed at time of complaint (10:30): 11 km/hr Wind direction at time of complaint: West-South-West	Complainant was requested to call back in 1 hour if no improvement, no call back received.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
18/05/2018	10:30	Phone	Steve Barclay - Orica (IXOM) control room Steve.barclay@orica.com	Odour Complaint	The odour control system fan had been running at full speed (55Hz). It was noted approximately 400 tonnes of waste was on the floor. IXOM site was in shutdown period at the time of the complaint indicating elevated receptors present on maintenance platform. Wind speed at time of complaint (10:30): 14 km/hr Wind direction at time of complaint: West-South-West	Complainant was requested to call back in 1 hour if no improvement, no call back received.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
21/05/2018	12:00	Phone	Sebastian - Orica (IXOM) control room Steve.barclay@orica.com	Odour Complaint	As there were SW winds noted at the site, Veolia contacted IXOM to check if any odour was present at their site. IXOM confirmed there was odour and it was quite strong. It was also mentioned that the odour at the elevated platform was considerably stronger. The odour control system fan had been running at full speed (55Hz). It was noted approximately 150 tonnes of waste was on the floor. Wind speed at time of complaint (12:00): 28 km/hr Wind direction at time of complaint: West	Veolia had initiated contact with IXOM requesting odour feedback to assist in on-going odour investigations.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.
22/05/2018	11:40	Phone	Andy - Orica (IXOM) control room Steve.barclay@orica.com	Odour Complaint	The odour control system fan had been running at full speed (55Hz). It was noted the waste shed was had 300 tonnes and approximately 35 full boxes were being stored on the container storage area. The fans were temporarily turned off. Wind speed at time of complaint (11:40): 19 km/hr Wind direction at time of complaint: West	Complainant was requested to call back in 1 hour if no improvement, no call back received.	The complaint was added to the Odour Feedback Register to assist in fine-tuning the plant and optimising parameters.

Appendix H –Veolia’s Feedback Register

Date	Time	Method	Contact	Odour Feedback	Site Conditions	Follow-up contact	Further Action taken by Veolia <i>(if not, then explanation why added to commentary)</i>
18/05/2018	9:00	Phone	Bob Manevski (Site Manager) contacted the IXOM Control Room and spoke to Michael.	No odour issues at IXOM site when SW winds were noted.	IXOM contact confirmed no odour was detected at IXOM site. The odour control system fan had been running at full speed (55Hz). Wind speed at time of contact (9:00): 20 km/hr Wind direction: West-South-West	Steven Barclay (Site Supervisor) contacted BTT Site Manager in the afternoon and indicated there was odour detection on the site on the 18/5/2018. This complaint is included in the BTT Complaints Register.	N/A
29/05/2018		Phone	Bob Manevski (Site Manager) contacted the IXOM Control Room and spoke to David Harvey.	No odour issues at IXOM site when SW winds were noted.	See details of phone conversation on 31/5/2018 for details. The odour control system fan had been running at full speed (55Hz) at 23 m/s exit velocity. Wind direction: West-South-West	Not required.	N/A
30/05/2018		Phone	Bob Manevski (Site Manager) contacted the IXOM Control Room and spoke to David Harvey.	No odour issues at IXOM site when SW winds were noted.	See details of phone conversation on 31/5/2018 for details. The odour control system fan had been running at full speed (55Hz) at 23 m/s exit velocity. Wind direction: West-South-West	Not required.	N/A
31/05/2018	14:25	Phone	Bob Manevski (Site Manager) contacted the IXOM Control Room and spoke to David Harvey.	IXOM confirmed there were no odour issues at IXOM site on the 31/5/2018, 30/5/2018 and 29/5/2018, when SW winds were noted.	The odour control system fan had been running at full speed (55Hz) at 23 m/s exit velocity. Wind direction at time of contact: West-South-West	Bob also contacted Steven Barclay (Site Supervisor) who was not on site at the time of the phone call. Steven did not indicate any odour had been detected at IXOM from 29/5/2018 - 31/6/2018. Bob extended an invitation to the IXOM control room staff to BTT to show what Veolia has implemented to improve odour management at the site.	N/A
4/06/2018	10:30	Phone	Bob Manevski (Site Manager) contacted the IXOM Control Room and spoke to Jamie Van Rooyen	IXOM confirmed there were no odour issues at IXOM site when SW winds were noted.	IXOM contact spoke to crew members on site and said that they were not able to detect any odour coming from BTT. The odour control system fan had been running at full speed (55Hz) at 22 m/s exit velocity. Wind direction at time of contact: West-South-West	Not required.	N/A
5/06/2018	9:48	Phone	Bob Manevski (Site Manager) contacted the IXOM Control Room and spoke to David Harvey.	No odour issues at IXOM site when SW winds were noted.	IXOM contact confirmed no odour was detected at IXOM site. The odour control system fan had been running at full speed (55Hz) at 22 m/s exit velocity. Approximately 400 tonnes of waste were on the waste shed floor at the time of phone contact. Wind speed at time of contact: 32 km/hr Wind direction at time of contact: South-South-West	Not required.	N/A
18/06/2018		Phone	Bob Manevski (Site Manager) contacted the IXOM Control Room and spoke to Craig Wilson on 19/6/2018.	No odour issues at IXOM site when SW winds were noted.	See details of phone conversation on 18/6/2018 for details. The odour control system fan had been running at full speed (55Hz) at 22 m/s exit velocity. Wind direction: West-South-West	Not required.	N/A
19/06/2018	8:43	Phone	Bob Manevski (Site Manager) contacted the IXOM Control Room and spoke to Craig Wilson on 19/6/2018.	IXOM confirmed there were no odour issues at IXOM site on the 18/6/2018 and 19/6/2018 when SW winds were noted.	The odour control system fan had been running at full speed (55Hz) at 22 m/s exit velocity. Approximately 350 tonnes of waste were on the waste shed floor at the time of phone contact. Wind speed at time of contact: 50 km/hr Wind direction at time of contact: South-South-West	Not required.	N/A
20/06/2018		Phone	Bob Manevski (Site Manager) contacted the IXOM Control Room and spoke to Seb Livolsi on 22/6/2018.	IXOM confirmed there were no odour issues at IXOM site on the 20/6/2018, 21/6/2018 and 22/6/2018 when SW winds were noted.	The odour control system fan had been running at full speed (55Hz) at 22 m/s exit velocity.	Not required.	N/A

21/06/2018		Phone	Bob Manevski (Site Manager) contacted the IXOM Control Room and spoke to Seb Livolsi on 22/6/2018.	IXOM confirmed there were no odour issues at IXOM site on the 20/6/2018, 21/6/2018 and 22/6/2018 when SW winds were noted.	The odour control system fan had been running at full speed (55Hz) at 22 m/s exit velocity.	Not required.	N/A
22/06/2018	8:50	Phone	Bob Manevski (Site Manager) contacted the IXOM Control Room and spoke to Seb Livolsi on 22/6/2018.	IXOM confirmed there were no odour issues at IXOM site on the 20/6/2018, 21/6/2018 and 22/6/2018 when SW winds were noted.	The odour control system fan had been running at full speed (55Hz) at 22 m/s exit velocity. Wind speed at time of contact: 11 km/hr Wind direction at time of contact: North-West	Not required.	N/A