Prepared by SUEZ Recycling & Recovery Australia

Lucas Heights Resource Recovery Park

Air Quality and Odour Management Plan

September 2021

1. Quality Information

Document Revision Register

Rev	Revision Details	Prepared by	Reviewed by	Authorised by	Date
0	Initial Draft for internal review	Brian Kiely Compliance Scientist LHRRP SUEZ			28 Sep 2017
0	Final Draft	Brian Kiely Compliance Scientist LHRRP SUEZ	Nicholas Bhugon NSW EQ&S Officer SUEZ	Kim Ross Landfill Advisor SUEZ	6 Oct 2017
0	Consultation Draft	Brian Kiely Compliance Scientist LHRRP SUEZ	Carol Ng Project Manager SUEZ	Kim Ross Landfill Advisor SUEZ	10 Oct 2017
1	Final	Brian Kiely Compliance Scientist LHRRP SUEZ	DPE, SSC and NSW EPA	Kim Ross Landfill Advisor SUEZ	13 Dec 2017
2	Final	Ken Telfer Compliance Manager LHRRP SUEZ	LC Chiang Landfill Manager New Illawarra Rd Landfill	Kim Ross Landfill Advisor SUEZ	10 Apr 2018
3	Final	Adam Philip Environmental Advisor	Kelly Gee Environmental Manager NSW	LC Chiang Landfill Manager New Illawarra Rd Landfill	09 Sept 2021

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2. Definitions/Abbreviations

AQOMP	Air Quality and Odour Management Plan
CRG	Community Reference Group
DPE	NSW Department of Planning and Environment
EDL	Energy Developments Limited
EIS	Environmental Impact Statement
EPA	NSW Environment Protection Authority
EPL	Environment Protection Licence
LH1	Lucas Heights 1
LHRRP	Lucas Heights Resource Recovery Park
OEH	NSW Office of Environment and Heritage
OEMP	Operational Environmental Management Plan
OU	Odour Unit (Cumulative)
PCYC	Police Citizens Youth Club
PM_{10}	Particulate Matter 10 - micrometers or less in diameter
SICTA	Sydney International Clay Target Association
SOP	SUEZ Standard Operating Procedure
SSC	Sutherland Shire Council
SSD	State Significant Development
SUEZ	SUEZ Recycling and Recovery Pty Ltd
TSP	Total Suspended Particulates
VPA	Voluntary Planning Agreement
WI	Work Instruction

3. Executive Summary

The following Air Quality and Odour Management Plan has been prepared to meet the requirements of the Development Consent SSD 6835 Section C11 and C11A.

The aim of the plan is to address air quality and odour management for the existing site and will need to be modified in line with proposed changes on site when the time comes. This includes the relocation of the Garden Organics (GO) facility and construction of the new Advanced Resource Recovery Treatment (ARRT) facility.

As the AQMP is required by the Development Consent, the plan and subsequent modifications are required to be undertaken in consultation with the SSC/EPA and Department of Planning.

The AQMP is to be read in conjunction with the Deed, VPA and the Operational Environmental Management Plan which form part on the AQMP.

3.1 Site Overview

SUEZ Recycling and Recovery (SUEZ) operates a solid waste landfill at Lucas Heights Resource Recovery Park (LHRRP). LHRRP is licensed to accept solid waste from domestic and commercial sources that are suitable for disposal in a general solid (putrescible) waste landfill.

Activities on the site include (see Figure 1):

- Landfill;
- A resource recovery centre and waste collection point;
- GO facility for processing garden organics;
- Truck parking area;

Truck Parking Area

Garden Organic Area

Current and Future Landfill Area

Resource Recovery Centre and Waste Collection Point

Figure 1 LHRRP Site Activity Map

Other facilities/operations located at LHRRP:

- Renewable energy operations (operated by Energy Developments Limited);
- Community use areas in the minibike area at the southern extent of the site run by Police Citizens Youth Club (PCYC) and the Sydney Clay Target Association (SICTA) on the leased land on the north-western side of the site.

The site currently operates under an environmental protection licence (EPL) under Section 55 Protection of the Environment Operations Act 1997, EPL No. 5065. There is one additional EPL for the site, EPL No. 12520 (GO facility).

On 23 January 2017 as part of SSD 6835, SUEZ received Development Consent from the NSW Department of Planning and Environment (DPE) for various activities including an increase in landfill capacity, to relocate and expand the garden organics facility and to construct and operate a new resource recovery facility.
Site activities are currently undertaken in accordance with the LHRRP Operational Environmental Management Plan (OEMP) and this Air Quality and Odour Management Plan (AQOMP) will form part of the OEMP.

This AQOMP applies to the landfill re-profiling works as outlined in SSD 6835 and the current Garden Organics (GO) facility, the AQOMP will be updated following the construction of the new GO facility and Advanced Resource Recovery Treatment (ARRT) facility (the ARRT will also have its own AQOMP as described in consent condition C17 which will form part of the overall AQMP).

While not forming part of the LHRRP site or SSD6835, operations at the Leachate Treatment Plant located at Lucas Height 1 (approximately 3.5 km NE of LHRRP) will be subject to the same conditions outlined in this AQOMP.

3.2 Scope and Objective

The purpose of the AQOMP is to provide, in accordance with Consent Conditions, EPL, relevant legislation and SUEZ's Environmental, Quality and Safety (EQS) Management System, air quality and odour management procedures to form part of the LHRRP OEMP.
The OEMP is the working environmental management tool for the operation of LHRRP, concentrating on environmental issues, including detailed plans for the management of water quality, waste, traffic, air quality, noise, landscape and vegetation and emergency response.
The AQOMP provides information on the key air quality issues including dust, odour, as follows:

- Quantitative assessment of potential air quality impacts for LHRRP in accordance with relevant EPA guidelines and requirements;
- Detailed emission/odour control techniques/practices to be employed;
- Details of ongoing management and monitoring measures for preventing and/or minimising air quality and potential odour;

- Systems for measuring and reporting the effectiveness of the adopted air quality control measures demonstrating compliance with relevant regulatory framework;
- Rectification measures to enable any negative environmental impacts can be controlled retrospectively.

3.3 Best practice

In-line with the LHRRP OEMP the purpose of this AQOMP is to adopt and document a “Best Practice Approach”. In addition, the AQOMP will reflect the intention of the requirements of the Environmental Guidelines: Solid Waste Landfills, Second Edition[1] which includes references to the environmental goals and benchmark techniques described within the guidelines.

Best Practice is defined as:
"The best combination of eco-efficient techniques, methods, processes or technology used in a similar industry sector and environmental setting that demonstrably minimises the environmental impact and achieves the desired project goals for the local environmental setting”

Eco-efficient is defined as:
"The most effective means of achieving a particular goal or set of goals, taking into consideration environmental, economic and social factors"

3.4 Legal and Other Requirements

The following regulatory framework applies to this AQOMP:

- Development Consent (SSD 6835) issued the Environmental Planning and Assessment Act 1979[2]
- EPL 5065 issued under the protection of the Environment Operations Act 1997 (POEO Act)[3]
- Deed between SSC and SUEZ – 2000, Deed of Variation 2015[4]
- Voluntary Planning Agreement between SUEZ and SSC - 17 March 2017[5]

The documents listed above must be read in conjunction with this AQOMP.

3.5 Conditions of Development Consent – SSD 6835

Consent Conditions C8, C9, C11, C11A, C12 and C14 to C21 relate to air quality (including dust and odour). Condition C11 requires the preparation and implementation of an AQOMP and Condition D7 describes how Management Plans required under the Consent are to be prepared. The requirements considered relevant to this AQOMP are detailed in Table 1.

Relevant Conditions	Requirement	AQOMP Reference
Condition C11 - Site Air Quality and Odour Management Plan		
C11	The Applicant shall prepare a Site Air Quality and Odour Management Plan. The plan shall:	Noted
C11 (a)	be prepared by a suitably qualified and experienced person in consultation with the EPA and Council;	Noted
C11 (b)	be submitted to the Secretary prior to the commencement of construction;	Noted
C11 (c)	list all emission sources across the LHRRP and key performance indicators for each emission type;	Sections 4 and 7
C11 (d)	describe odour and dust monitoring methods, location, frequency, and duration;	Section 9
C11 (e)	show the locations of real-time dust monitors on and off-site with appropriate trigger values;	Section 9
C11 (f)	report on the performance of the site against the key performance indicators for each emission type;	Section 6
C11 (g)	detail proactive mitigation measures for the control of dust and odour impacts;	Section 8
C11 (h)	detail the contingency measures to be implemented to respond to complaints or if dust or odour impacts are identified; and	Section 8
C11 (i)	include record keeping, complaints register and compliance reporting.	Sections 9 and 10
C11A	The applicant must update the Site Air Quality and Odour Management Plan required by condition C11 of this consent. The updated plan must:	
C11A (a)	be prepared by a suitably qualified and experienced person in consultation with the EPA;	
C11A (b)	be submitted to the Secretary within six months of the determination of SSD 6835 MOD1;	

C11A (c)	Detail additional mitigation measures which will be employed to prevent future odour emissions at the site; and	
C11A (d)	Address the requirements of Condition C11 of this consent.	
Condition D7 – Management Plan Requirements		
D7	The Applicant shall ensure the Management Plans required under this Consent are prepared in accordance with any relevant guidelines, and include:	Noted
D7 (a)	detailed baseline data	Section 6
D7 (b)	a description of: i. the relevant statutory requirements (including any relevant approval, licence, or lease conditions) ii. any relevant limits or performance measures/criteria iii the specific performance indicators that are proposed to the used to judge the performance of, or guide the implementation of, the Development or any management measures	Sections 2 and 7
D7 (c)	a description of the measures that will be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria	Section 8
D7 (d)	a program to monitor and report on the: i. impacts and environmental performance of the Development ii. the effectiveness of any management measures (see (c) above)	Section 9
D7 (e)	a contingency plan to manage any unpredicted impacts and their consequences	Section 8
D7 (f)	a program to investigate and implement ways to improve the environmental performance of the Development over time	LHRRP OEMP
D7 (g)	a protocol for managing and reporting any: i. incidents ii. complaints iii. non-compliances with statutory requirements, and iv. exceedances of the impact assessment criteria and/or performance criteria, and	Sections 9 and 10
D7 (h)	a protocol for periodic review of the plan	Section 11

Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans

Table 1 SSD 6835 Consent Conditions

3.6 Environment Protection Licences

Two EPLs are applicable to LHRRP:

- EPL 5065 – for LHRRP excluding the GO facility
- EPL 12520 – for the current GO facility[6].

The relevant licence conditions specific to air quality and odour are shown in Table 2.

Licence Condition	Requirement
EPL 5065 - LHRRP	
L5	Potentially offensive odour
L5.1	No condition of this licence identifies a potentially offensive odour for the purposes of section 129 of the Protection of the Environment Operations Act 1997. Note: Section 129 of the Protection of the Environment Operations Act 1997, provides that the licensee must not cause or permit the emission of any offensive odour from the premises but provides a defence if the emission is identified in the relevant environment protection licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour.
O1	Activities must be carried out in a competent manner
O1.1	Licensed activities must be carried out in a competent manner. This includes: a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and b) the treatment, storage, processing, reprocessing, transport, and disposal of waste generated by the activity.
O2	Maintenance of plant and equipment
O2.1	All plant and equipment installed at the premises or used in connection with the licensed activity: a) must be maintained in a proper and efficient condition; and b) must be operated in a proper and efficient manner.
O3	Dust

O3.1	All operations and activities occurring at the premises must be carried out in a manner that will minimise the emission of dust from the premises.
O5.17	The licensee must carry out works in accordance with the document titled Odour Management Plan for Landfill Gas Extraction Systems provided with the letter received from Waste Service NSW dated 28 June 2002.
U1	Implementation of odour risk reduction measures
EPL 12520 – GO Facility	
L4	Potentially offensive odour
L4.1	No condition of this licence identifies a potentially offensive odour for the purposes of section 129 of the Protection of the Environment Operations Act 1997. Note: Section 129 of the Protection of the Environment Operations Act 1997, provides that the licensee must not cause or permit the emission of any offensive odour from the premises but provides a defence if the emission is identified in the relevant environment protection licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour.
O3	Dust
O3.1	The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.

Table 2 EPL Conditions

3.7 Voluntary Planning Agreement

As part Development Consent SSD 6835 (Consent Condition B19) SUEZ entered into a Voluntary Planning Agreement (VPA)[5] with SSC on 17 March 2017.

In addition to the significant financial obligations that SUEZ has to SSC under the VPA there are also a number of environmental performance commitments; these commitments have been incorporated into the LHRRP OEMP.

3.8 Stakeholder Consultation

In accordance with Consent Condition C11, this AQOMP is required to be prepared in consultation the EPA and SSC before submission the DPE. Evidence of consultation is shown in the Appendix (Section 13).

The EPA's comments concerning uncapped area and/or lack of vegetative matter have been acknowledged and incorporated into the AQOMP (section 7.1). Consultation with SSC is addressed in Section 13.2 of the AQOMP.

DPE comments on AQOMP are addressed in Section 13.3. SSC updated on consultation outcomes and provided with a final copy of the AQOMP on 15th December 2017.

3.9 Experience and Qualifications of Author

This AQOMP was originally prepared by Brian Kiely (BSc Hons) of SUEZ compliance scientist at LHRRP. He has over 18 years of environmental management experience from working in industrial facilities and has previously prepared numerous odour and dust management plans in that time.

The current version has been reviewed and updated by Adam Philip, Environmental Advisor at LHRRP. He has over 12 years in Environmental Compliance.

The AQOMP was reviewed by the SUEZ Environment Team

4. Key Performance Indicators/targets

The following KPIs have been adopted for air quality and odour at LHRRP:

4.1 Dust

- No visible dust from the site beyond the boundary of the site;
- Maximum level of dust deposition shall not exceed 4 grams per metre squared (g/m^2) per month as an annual mean;
- TSP monitoring results shall not exceed 90 µg/m3 annual average;
- All on site staff adequately trained in dust minimisation procedures and techniques;
- No dust complaints from neighbouring landholders.

4.2 Odour

- Meet the requirements of Section 129 of the POEO Act 1997;
- Achieving no detectable odours (less than 2 OU, cumulative) at the nearest residential receptor;
- No odour complaints.

5. Roles and Responsibilities

Overall responsibility for the implementation of the AQOMP rests with SUEZ. All employees and the contractors will meet the requirements of the AQOMP and associated procedures. In-line with the LHRRP OEMP the responsibilities for the implementation of the AQOMP are summarised in Table 3.

Action	Responsibility	Timing
Overall implementation of AQOMP	Site Manager	Ongoing
Implement methodology for avoiding excessive air quality and odour emissions	Site Manager	Ongoing
Coordinate monitoring and compile reports	Environmental Advisor	As required
Maintain internal records of monitoring	Environmental Advisor	As required
Collate and maintain records of complaints, respond to complainant, regulatory/government agencies including DPE, EPA and SSC (CRG if required).	Environmental Advisor	Upon receipt of complaint
Identify non-conformances and notify the Operations Manager	Operational Personnel	Ongoing
Authorise and confirm the implementation of mitigation measures	Operations Manager	As required
Training and communication	Safety Team and Environmental Advisor	Training as required, ongoing toolbox updates

Table 3 Roles and Responsibilities

6. LHRRP Baseline Data

6.1 Existing Environment

The local climate at Lucas Heights is similar to that of the broader Sydney metropolitan region with warm to hot summers and cool to mild winters. The local climate at the LHRRP is affected by broader regional patterns of synoptic pressure and wind with embedded weather systems. Synoptic features vary in intensity and location according to the season. For instance, during summer a high-pressure belt is usually found over or just to the south of Australia, bringing warm weather while the subtropical easterlies cover most of the continent. In winter, the subtropical high-pressure belt is usually located further north over the continent, allowing westerly winds and occasional to frequent strong cold fronts to affect southern Australia. This allows the 'Southerly Buster' (an abrupt southerly change) to affect Sydney as cold frontal systems penetrate further inland of the continent.

6.1.1 Ambient Air Quality

There are no significant odour emitting facilities located near (within 5 km) the LHRRP. The old Lucas Heights Landfill (LH1), now the Barden Ridge sporting complex is a potential minor source of odour. This old site is all final capped landfill and is not be considered as a source of odour (Environmental Impact Assessment – GHD 2015)[6]. Leachate generated at LHRRP is transferred to LH1 where it is temporarily stored and then aerobically treated prior to discharge to sewer. This temporarily stored leachate and its treatment would not have any noticeable odour impacts on nearby receptors.

It is therefore considered that there would be no other sources of background odour affecting the LHRRP site and surrounds.

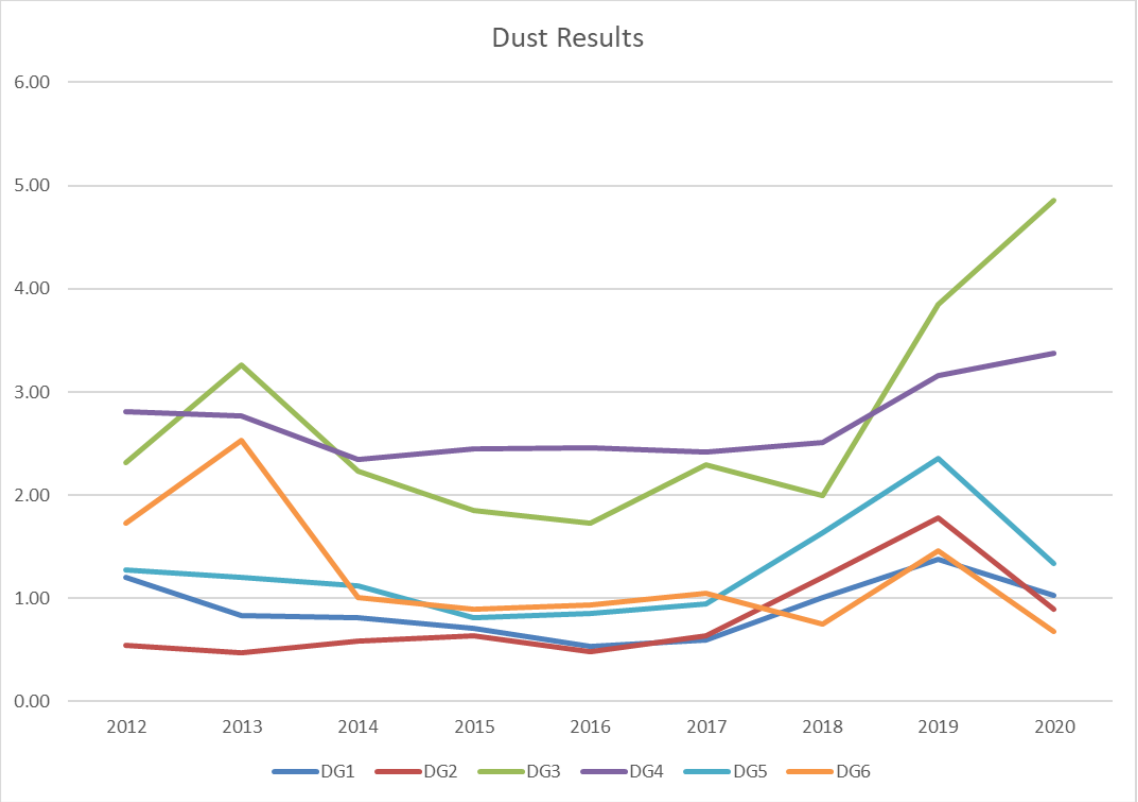
The closest air monitoring station to LHRRP is located at Liverpool and is operated by OEH, where PM_{10} is among the air pollutants measured and reported daily on the OEH website. The OEH also publish an annual report (NSW Air Quality Statement) and PM_{10} data for the Liverpool station in 2016 was recorded to be 19.7 $\mu g/m^3$ for a 24-hour average with a maximum daily average of 68.7 $\mu g/m^3$.

Areas like Lucas Heights are subject to wind erosion and is close to urban activities that tend to have elevated levels of background dust. Pollen and vegetation derived dust would also be expected.

6.1.2 Dust Deposit Results

There are six locations at LHRRP where dust monitoring is undertaken, the average annual results from 2012 to 2020 are summarised in Table 4.

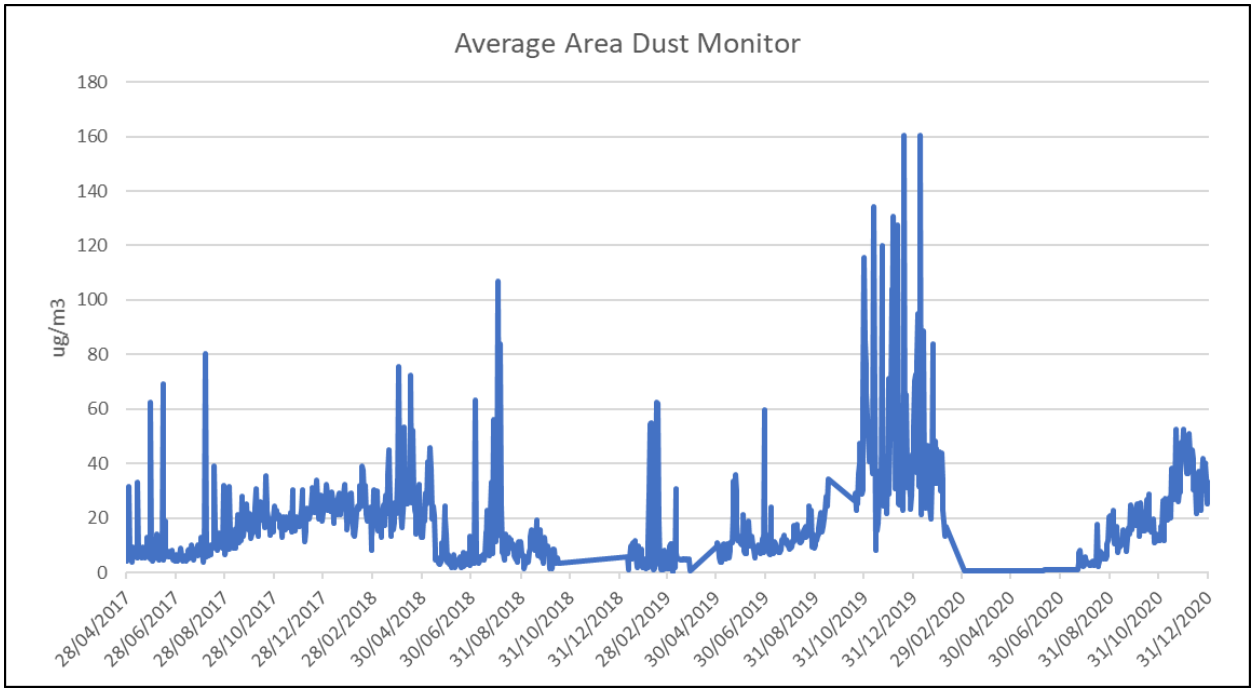
The location of the LHRRP dust deposition gauges are shown in Figure 2 (Section 9).



Average Annual Dust Deposition Result 2012 – 2020

6.1.3 Total Suspended Particulates

Total Suspended Particulate Monitoring has been undertaken at LHRRP since April 2017 using a real-time continuous dust monitor. The annual average to date (up until 31 December 2020) is 16.7 µg/m^3, well below the target value of 90 µg/m^3.



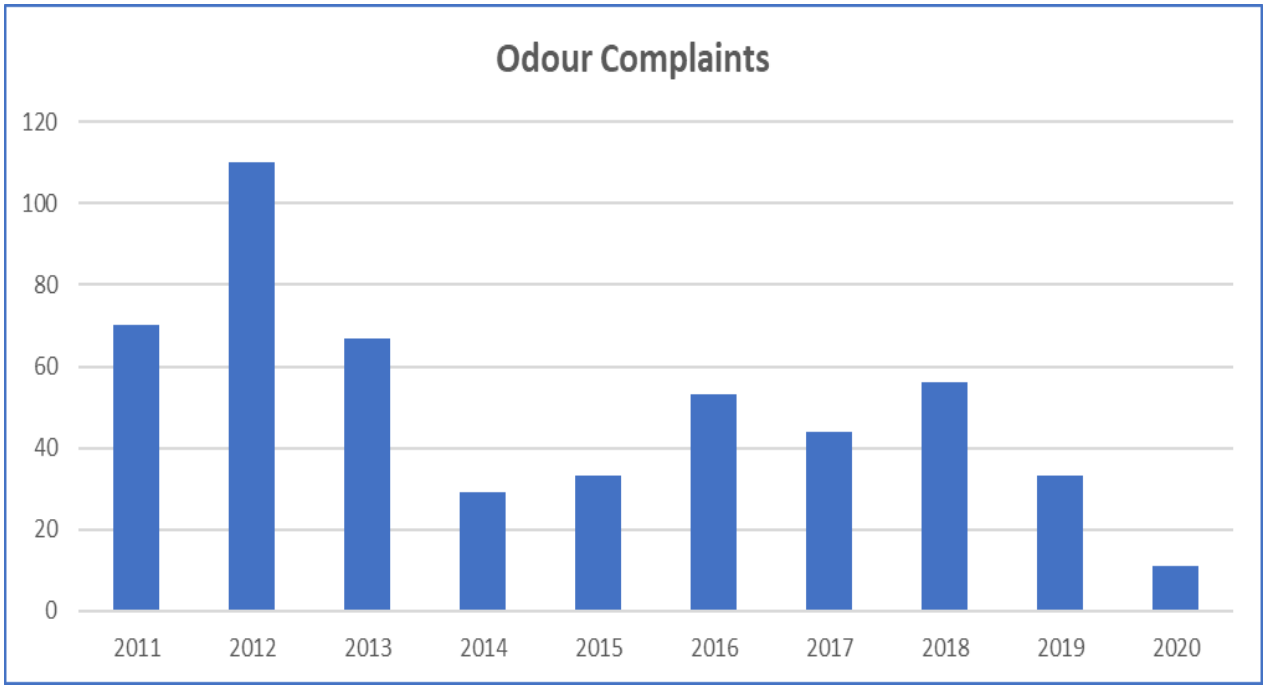
6.1.4 Odour

As part of the EIS (GHD 2015)[7] odour modelling was undertaken using odour emission data obtained from a comprehensive odour sampling program at LHRRP. Sampled odour data was used to model the existing and future operating scenarios at LHRRP.

Modelling run for the proposed LHRRP operations in 2016 took into account the program to reduce odour from the identified odour sources on the landfill (this program has been completed and involved the installation of additional gas infrastructure). The predicted odour levels in this model (2016) indicated a maximum OU of <2 at the nearest current residential areas and a 50% reduction in the maximum OU value at ANSTO.

The potential for odour complaints from LHRRP operations is higher during colder (winter) months due to temperature inversions that result in poor air dispersion. In addition, gas extraction levels may be affected after prolonged periods of heavy rain and this can potentially be a source of odour.

In March 2018 GHD undertook further modelling to determine the effects of allowing trucks to enter and unload from 5 am. It was determined that while there would be a slight increase in odour it wound still be below the results comply with the odour criteria as described in the Approved Methods.



7. Potential Emission Sources

7.1 Dust

As part of the AQOMP SUEZ has identified potential dust sources that may occur from operations at LHRRP, the potential dust sources are listed below:

- Wheel generated dust from vehicles (including trucks and light vehicles) travelling on unpaved surfaces
- Excavators/front end loaders on landform
- Bulldozers
- Scrapers
- Graders
- Trucks dumping
- Loading stockpiles.
- Uncapped and/or poorly vegetated surface areas

7.2 Odour

As part of the AQOMP SUEZ has identified potential odour sources that may occur from operations at LHRRP, the potential odour sources are listed below:

- Preparation, depositing and landfilling waste on the active landfilling (tipping) area;

- The covered areas (daily, intermediate, and final) at the landfill, including the batters which are covered by intermediate cover;
- Landfill leachate ponds;
- Leaks/blockages in landfill gas infrastructure;
- Receivals area at the GO facility;
- Loading materials at the GO facility;
- Compost and stockpiled materials, including blending materials at the GO facility;
- Turning compost at the GO facility.

8. Air Quality and Odour Management Measures and Controls

Dust and odour mitigation measures included in the LHRRP OEMP[8] have been incorporated into this AQOMP and are outlined in Table 5 and Table 6.

8.1 Dust Management Measures and Controls

Area	Dust Management Measures and Controls
Landfill	**Preventative Measures**
	• Plan earthworks, landfill operations, rehabilitation, and construction activities to keep exposed areas to a minimum; • Implement on site traffic and operational controls to prevent unnecessary dust generation; • Seal frequently used roadways; • Assess the need to undertake dust generating activities during adverse weather conditions (e.g. wind speeds >25 m/s); • Progressively remove soil stockpile (which will occur in time with the utilisation of this material for covering the waste); • Review operations if wind speeds >25 m/s and cessate if operations are deemed unsafe; • Undertake monthly dust deposition monitoring at 6 boundary locations on site • Inspect incoming trucks, ensuring that trucks transporting material are covered and that tailgates are firmly fixed; • Limit vehicles to specified routes around the site and ensure speed limits are adhered to (general speed limit is 30 km/hr unless otherwise indicated); • Operate wheel washing facilities at exits from unsealed roads for use during wet conditions; • Maintain watering truck filling facilities.

	Mitigation measures • Use dust suppression techniques (such as watering) to maintain moist conditions on exposed areas and unsealed roadways; • Undertake visual monitoring of dust emissions; • Undertake monthly dust deposition monitoring at six boundary locations on site; • Undertake periodic Total Suspended Particulate (TSP) monitoring; • Implement watering of exposed areas, roadways and rehabilitation areas using watering trucks and/or sprinkler systems as necessary to suppress dust.
	Rectification measures • Record environmental complaints and regular review and reporting of performance; • Consider spraying dust suppressants on the soil stockpile; • Increase the amount of sprinklers on stockpiles and water cart equipment for operational areas if required.
GO Facility (Current operations)	**Preventative Measures** • Dust generating activities are not undertaken during adverse weather conditions; • Limit movements of mobile plant in heavy winds; • Sealing of frequently used roadways; • Vehicles are covered or enclosed during transport around the site; • Spraying of windrows, final compost storage areas, and loading areas, particularly prior to transportation and turning; • Review operations if wind speeds >25 m/s and cessate if operations are deemed unsafe; • Monitor size of stockpiles or blending materials; • Screening of perimeter fences; **Mitigation measures** • Water cart on trafficable areas as required; • Water misting sprays to be installed if required; • Visual monitoring of dust emissions; • Monthly dust deposition monitoring at two boundary locations adjacent to the GO facility (of the six dust deposition monitoring locations over the entire LHRRP) • Periodic Total Suspended Particulate (TSP) monitoring • Maintain stockpiles or blending materials to a minimum practicable level **Rectification measures**

	• Recording of environmental complaints and regular review and reporting of performance; • Increasing the number of sprinklers on stockpiles and water cart equipment for operational areas if required; • Reduce stockpiles or blending materials to a minimum practicable level.

Table 4 Dust Management Measures and Controls

8.2 Odour Measures and Controls

Area	Odour Management Measures and Controls
Landfill	**Preventative Measures**
	• Place prominent signs at the entrance to the landfill defining acceptable solid wastes; • Undertake random monitoring and inspection of incoming vehicles to determine waste composition, as waste is deposited from vehicles at the waste disposal area and monitoring of deposited waste during spreading, compaction and covering; • Schedule transfer station deliveries toward mid to late afternoon; • Operate a wheel washing facility for trucks leaving the site to minimise the transport of potentially odorous soil particles and debris onto adjacent roads; • Undertake regular washing and deodorising of SUEZ delivery vehicles at the vehicle depot; • Cover odorous wastes as soon as possible after delivery in accordance with the requirements of the site's environment protection licence; • Cover waste during daily operations as required and at the end of day; • Minimise the size of the active landfill face, taking into account the practicalities, safety, access, traffic management, etc; • Provide sufficient leachate storage capacity in the sites above ground dams to deal with greater than average wet weather; • Install leachate capture infrastructure on areas of the site being re-profiled; • Minimise the area of cap removed prior to placement of additional waste; • Use intermediate cover as required by the site's EPL; • Progressively install a suitably engineered capping layer as areas of the site are re-profiled; • Re-profile the landform to provide a minimum of 5% slope (pre and post • settlement);

	• Undertake regular inspection and monitoring of the capping layer; • Monitor landfill gas extraction flow rates and gas quality; • Develop of SOPs incorporating odour prevention techniques; • Train staff (internal and contractors) on odour management strategy and all relevant procedures; • Staff employment contracts to reference SOPs; • An on-site meteorological station that monitors wind speed, wind direction and temperature helps correlate odour complaints with weather conditions and assist in rectification.
	Mitigation measures • Maintain a vegetated buffer zone around the site to act as a buffer against odours and assist dispersion of any fugitive emissions; • Provide a sealing layer in the capping profile (in accordance with the NSW EPA's Environmental Guidelines: Solid Waste Landfills) [1]; • Progressively install and operate a landfill gas collection system to minimise odour as a result of landfill gas seepage; • Install additional landfill gas extraction infrastructure; • Flare gas temporarily when power generation plants are shut down; • Apply odour suppressants when stripping back existing capped areas; • Apply odour control spray system adjacent to areas that have had the existing cap removed prior placement of new waste; • Aerate the leachate dams as needed; • Minimise the time for which leachate is stored at the site before it is transferred for treatment and off site for disposal; • Daily site inspections of the areas being filled and at the site boundary to detect odour levels; • Record all incidents of identification and/or rejection of unacceptable waste; • Investigated complaints from neighbours and record in database; • Undertake odour patrols including visits to the residential areas (if known); • Reduce temporary steep batter slopes and the overall area of batters; • Include environmental KPIs in staff reviews.
	Rectification measures • Reduce the size of the active landfill face; • Increase equipment and personnel for daily cover operations; • Consider additional gas infrastructure when installing the capping layer after reprofiling areas of the site;

	• Place cover material if needed should the existing cap be stripped to previously landfilled waste; • Install additional aerators in the leachate storage dams; • Remove leachate from the dams; • Provide additional leachate storage; • Install linear low-density polyethylene (LLDPE) membrane or clay capping on batter slopes; • Increase the disposal capacity of the leachate pre-treatment plant; • Install odour control cannon or curtain. • Review monthly report from EDL and consider additional gas infrastructure.
GO Facility (Current operations)	**Preventative Measures** • Place prominent signs at the entrance to the LHRRP site defining acceptable wastes; • Conduct random monitoring and inspections of incoming vehicles to determine waste composition; • Immediately process waste received following receipt of garden organics waste; • Carry out prompt decontamination of material as it arrives at site, with minimal time between shredding and the decontamination process; • Minimise time between shredding and decontamination processes; • Actively aerate all 4 weeks of the composting process; • Ensure correct process adherence during composting and maturation activities to prevent material from becoming odorous; • Order manures in accordance with production schedules and blend with compost only in favourable weather conditions; • Check wind directions before undertaking potentially odorous operations; • Maintain optimal ground conditions to prevent ponding of water to assist with water management; • Operate a wheel washing facility for trucks leaving the site to minimise the transport of potentially odorous soil particles and debris onto adjacent roads; • SOPs incorporating odour prevention techniques to assist in staff induction and training; • Train staff (internal and contractors) on odour management strategy and all relevant procedures; • No blending material that is emitting offensive odours will be brought onto site. **Mitigation measures**

	• Monitor manure stock levels and maintain the final product for sale at a minimum level. SUEZ sales team to have forward orders to assist in maintenance of compost stock volumes; • Measure oxygen and moisture content of compost (active phases) and control with aeration and moisture addition; • Control areas of water ponding with odour fences as well as pump outs; • Optimise aeration of dams and ponds to ensure effective dam and water management; • Recording of all incidents of identification and/or rejection of unacceptable waste in the logbook; • Any complaints from neighbours will be investigated and recorded in database; • Operations to advise sales if stocks become too high; • Inspect trucks as they leave site for possible odorous residual material present. Maintain records of truck cleanliness and fit for purpose state; • Monitor stockpiles and confirm that no offensive odours are being emitted. **Rectification measures** • Investigate any complaints from neighbours and record in the database; • Odour patrols as required through residential areas; • Minimise the volume of final product storage, keeping volumes as low as possible; • Install additional decontamination and shredding equipment if necessary; • Install odour trailers to cover the operational area if necessary; • Repair the ground surface in areas where ponding water occurs; • Manage the performance of staff who do not adhere to site controls; • Transport finished product to customer if compost stocks are too high; • Should any of the materials post active composting phase or maturation phase emit offensive odours, the materials will be covered until rectification actions are complete.

Table 5 Odour Management Measures and Controls

9. Air Quality and Odour Monitoring and Reporting

9.1 Monitoring Program

Inspection and monitoring checklists for air quality and odour management at LHRRP are kept in SUEZ's document management system (FORM026.2.2)[9]. This ensures that all monitoring activities are carried out and will assist to minimise the impact of any emissions and trigger protocols for managing any exceedances. The frequency of the monitoring is defined in Table 7. The location of the monitoring points is shown in Figure 2.

Parameter	Monitoring Required	Frequency	Standard	Criteria/Performance measure/Trigger	Response
Dust	Dust Deposition Testing	Monthly	AS 3580.10.1-2003	4g/m²/Month	Address housekeeping or refer Section 8.1
Dust	Site inspections	Daily or as required	-	Detection/complaints	Address housekeeping or refer Section 8.1
TSP	TSP monitoring	Daily (average)		90µg/m³	Address housekeeping or refer Section 8.1
Odour	Site inspections	Daily or as required	-	Detection/complaints	Address housekeeping or refer Section 8.2

Table 6 Air and Odour Monitoring at LHRRP

Gas monitoring is conducted by SUEZ on a quarterly basis and is reported to the EPA as part of EPL 5065[3]. Energy Developments Limited (EDL) also provide gas monitoring data to SUEZ on a monthly basis, this data is reviewed by SUEZ and is used to identify areas that could develop into potential odour sources.

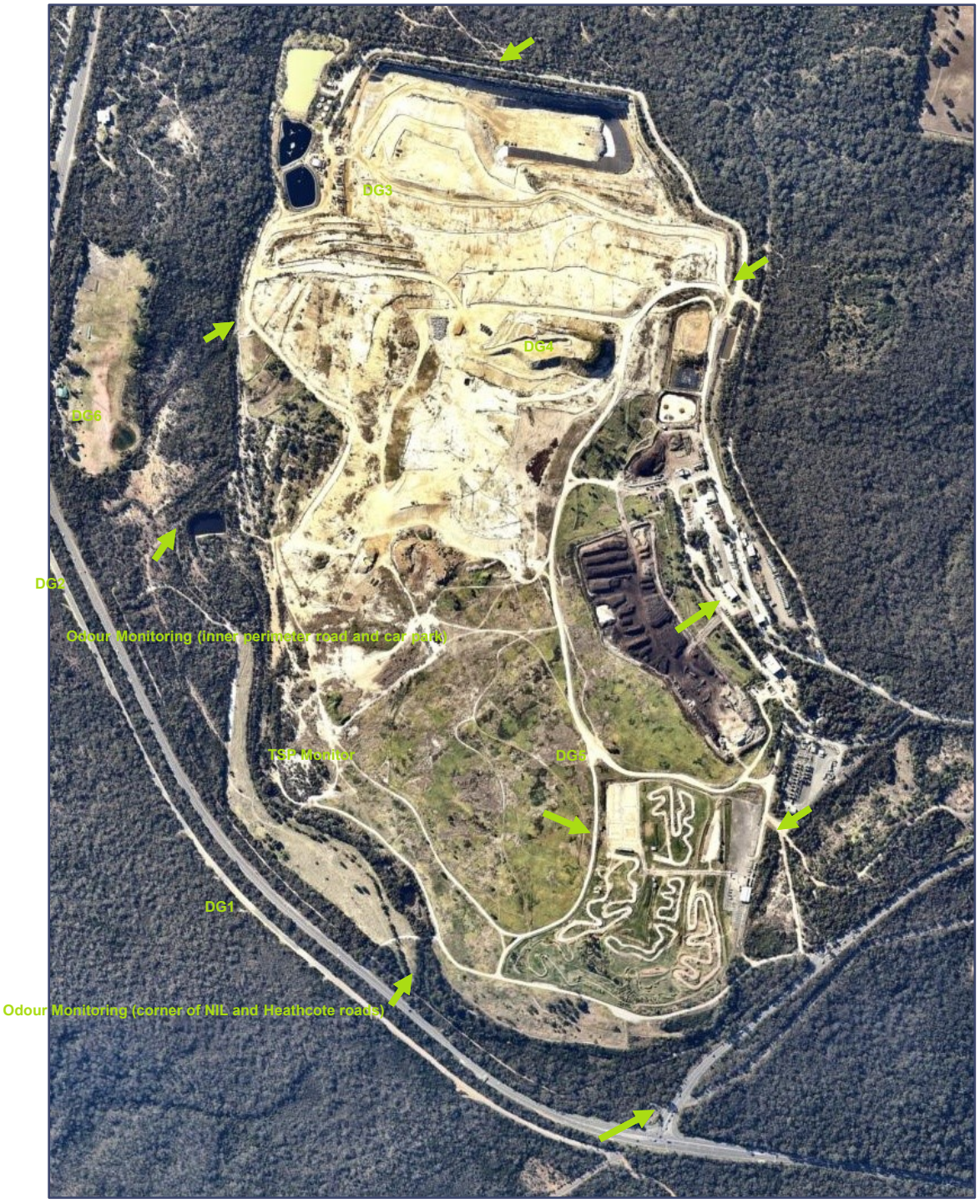


Figure 2 LHRRP Ambient Air and Odour Monitoring Locations

9.2 Performance Reporting and Review

All performance reporting will be in accordance with the LHRRP OEMP[10]. The Figure 3 shows the process to be followed:

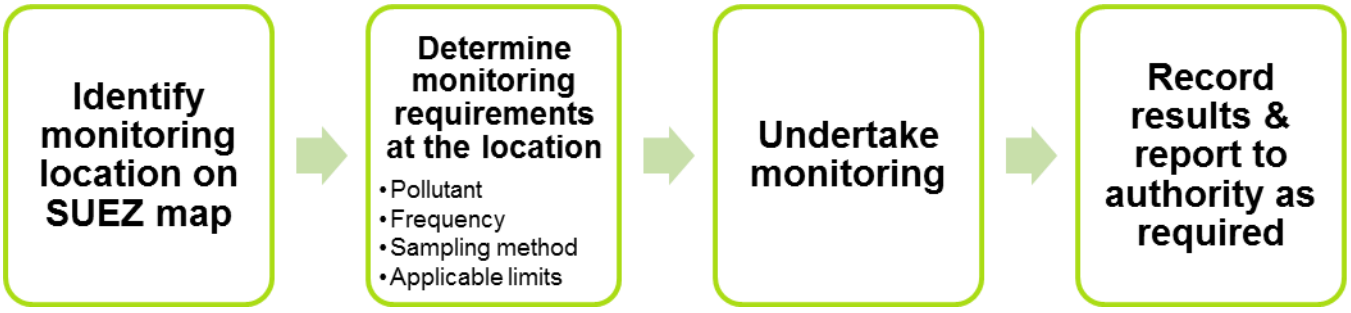


Figure 3 Summary of the Monitoring Process at LHRRP

The responsibilities of SUEZ workers are outlined within the relevant Standard Operating Procedures (SOPs) and Work Instructions (WIs) outlining the operations. The responsibilities of actions within this Environmental Management Plan fall to the Site Manager.

If monitoring is conducted by external contractors, all requirements of the Contractor and Visitor Control Procedure must be followed prior to the monitoring being conducted.

9.3 Monitoring Records

All monitoring records referenced in this section must be maintained in accordance with the Records Management Procedure and:

- Be in a legible form, or in a form that can readily be reduced to a legible form;
- Kept for a least 4 years after the monitoring or the event to which they relate took place; and
- Be able to be produced in a legible form to any authorised officer of the EPA who asks to see them.

All samples taken in this section must contain:

- The date(s) the sample was taken;
- The time(s) at which the sample was collected;
- The point/location at which the sample was taken; and
- The name of the person who collected the sample.

9.4 Exceedances and Corrective Actions

The handling of any operational air quality exceedances or odour detections will be managed with the

rectification measures outlined in Section 8 of the AQOMP.

10. Complaint and Incident Management

10.1 Complaints

In addition to regular site inspections by the site manager, members of the community will notify SUEZ direct or through the EPA pollution hotline when air quality/odour incident occurs. Records of these complaints will be kept and used to identify future air quality/odour management work required.

The site Environmental Advisor will respond to the community member if a response is requested or required. Formal responses will be returned to the EPA by the Site Manager.

The Complaint Investigation and Rectification process is detailed in the LHRRP OEMP[11]. All environmental complaints (including dust and odour) are reported annually to the EPA as part of the EPL reporting requirements. VPA complaint reporting requirements are described in Section 10.2.

10.2 VPA Complaint Reporting Requirements

The VPA outlines environmental and other reporting schedules. It requires quarterly reporting of odour as well as on a complaint basis to SSC. Key complaint reporting pertaining to odour onsite is outlined in Table 8.

Reporting Requirement	Reporting Frequency	Reporting Period	When to report	Comments
Less than or equal to 5 complaints per area of concern per month	Six monthly	Jan – Jun Jul – Dec	Within two months following the Reporting Period	Include number, type, location Comparison with previous year
Less than or equal to 5 complaints per area of concern per month	Monthly	Monthly	Within two weeks following the reporting period	Include number, type, location
Greater than 5 complaints per area	Per event	Daily	Following day	Include number, type, location Email notification to SSC's

of concern on any day				nominee and SSC general correspondence
Greater than 15 complaints in any calendar month per area of concern	Following month	Per event	End of Following Month	Requires internal audit
Greater than 20 complaints in any calendar month per area of concern, after the Third Month ie following the report resulting from the above.	Following month	Per event	End of Following Month	Requires external audit
Note: Complaints pertain to a single "area of concern", e.g., odour, or noise, etc.				

Table 7 VPA Complaint Reporting Schedule

10.3 Incident Management

In the event of a pollution incident where there a risk of 'material harm to the environment', as defined in section 147 of the POEO Act, the site will activate its Pollution Incident Management Response Plan (PIRMP)[12].

Harm to the environment is material if:

- involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or
- results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000 (or such other amount as is prescribed by the regulations),

Upon activating the PIRMP the following agencies will be contacted:

- EPA
- SSC
- Ministry of Health
- WorkCover
- Fire and Rescue NSW
- DPE

As outlined in the PIRMP Potentially impacted neighbours will also be contacted.

Within seven days of the date of the incident, SUEZ will provide the DPE and any other relevant agencies with a detailed report on the incident.

11. Review

11.1 General

This document will be updated periodically in accordance with relevant operational/procedural changes at LHRRP and in-line with any updates to the OEMP or other SUEZ documents as shown in Section 12.

The AQOMP will be reviewed as per condition D8 of Consent SSD6835:

Within three months of:
(a) an audit submitted under Condition D12;
(b) an incident report under Conditions D10 and D11;
(c) an annual review under Condition D9; and/or
(d) a modification to this consent,

Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the site.

11.2 Review and Document Control

Version	Change	Reviewed	Authorised	Date Issue
1	Initial Issue	Nicholas Bhugon	Kim Ross	28/9/17

Table 8 Review and Document Control

12. References

[1]Environmental Guidelines: Solid Waste Landfills, Second Edition

[2]Development Consent SSD 6835

[3]LHRRP EPL 5065

[4]Deed between SSC and SUEZ – 2000, Deed of Variation 2015

[5]Voluntary Planning Agreement between SUEZ and SSC – 17 March 2017

[6]GO EPL 12520

[7]Environmental Impact Assessment (GHD 2015) – Appendix G – Part I

[8]LHRRP OEMP – Section 8

[9]SUEZ FORM26.2.2

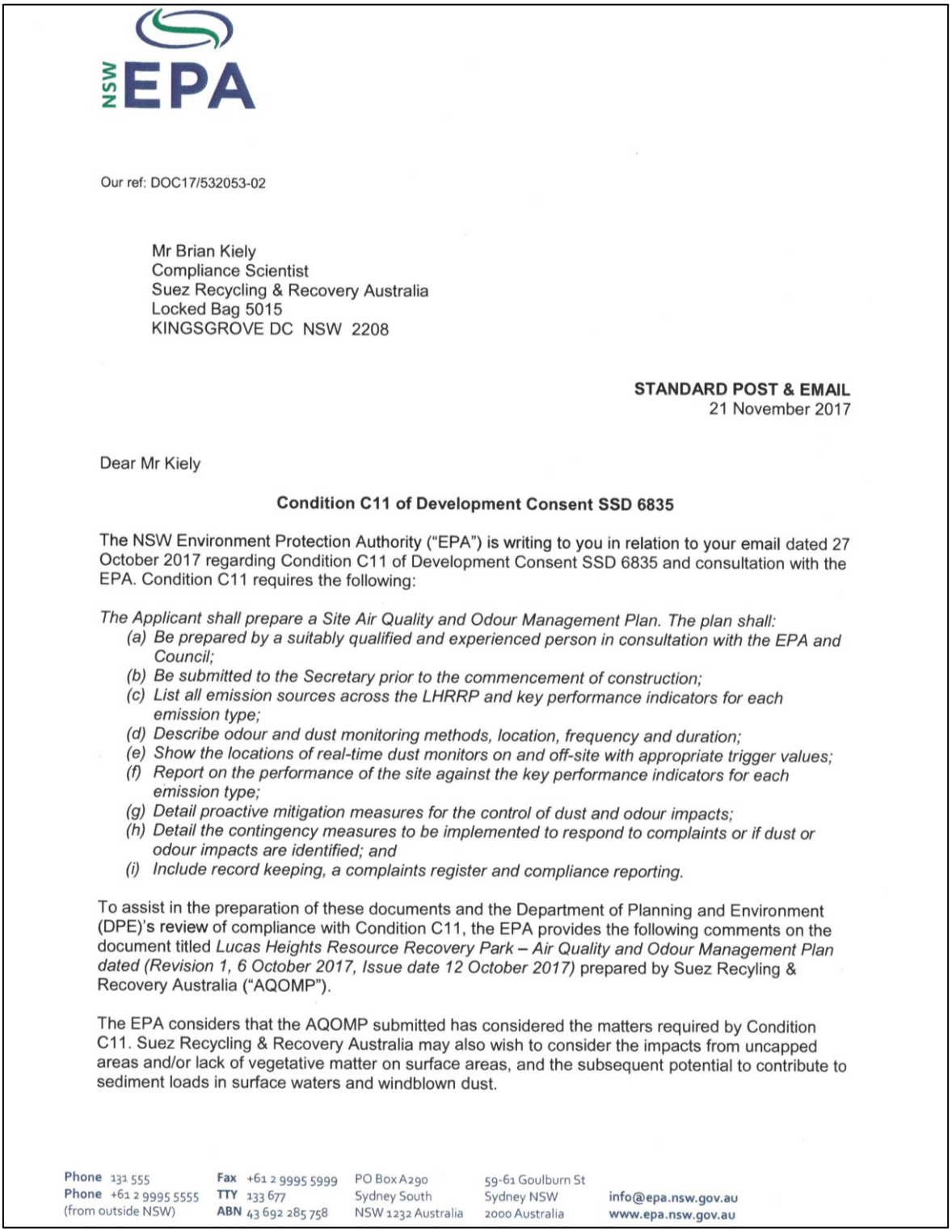
[10]LHRRP OEMP – Section 9

[11]LHRRP OEMP – Appendix K

[12]LHRRP PIRMP – PLANS003.2.8.1

13. Appendix

13.1 Consultation with NSW EPA



NSW EPA

Our ref: DOC17/532053-02

Mr Brian Kiely
Compliance Scientist
Suez Recycling & Recovery Australia
Locked Bag 5015
KINGSGROVE DC NSW 2208

STANDARD POST & EMAIL
21 November 2017

Dear Mr Kiely

Condition C11 of Development Consent SSD 6835

The NSW Environment Protection Authority ("EPA") is writing to you in relation to your email dated 27 October 2017 regarding Condition C11 of Development Consent SSD 6835 and consultation with the EPA. Condition C11 requires the following:

The Applicant shall prepare a Site Air Quality and Odour Management Plan. The plan shall:

(a) Be prepared by a suitably qualified and experienced person in consultation with the EPA and Council;
(b) Be submitted to the Secretary prior to the commencement of construction;
(c) List all emission sources across the LHRRP and key performance indicators for each emission type;
(d) Describe odour and dust monitoring methods, location, frequency and duration;
(e) Show the locations of real-time dust monitors on and off-site with appropriate trigger values;
(f) Report on the performance of the site against the key performance indicators for each emission type;
(g) Detail proactive mitigation measures for the control of dust and odour impacts;
(h) Detail the contingency measures to be implemented to respond to complaints or if dust or odour impacts are identified; and
(i) Include record keeping, a complaints register and compliance reporting.

To assist in the preparation of these documents and the Department of Planning and Environment (DPE)'s review of compliance with Condition C11, the EPA provides the following comments on the document titled *Lucas Heights Resource Recovery Park – Air Quality and Odour Management Plan dated (Revision 1, 6 October 2017, Issue date 12 October 2017)* prepared by Suez Recyling & Recovery Australia ("AQOMP").

The EPA considers that the AQOMP submitted has considered the matters required by Condition C11. Suez Recycling & Recovery Australia may also wish to consider the impacts from uncapped areas and/or lack of vegetative matter on surface areas, and the subsequent potential to contribute to sediment loads in surface waters and windblown dust.

Phone 131 555 | Phone +61 2 9995 5555 (from outside NSW) | Fax +61 2 9995 5999 | TTY 133 677 | ABN 43 692 285 758 | PO Box A290 Sydney South NSW 1232 Australia | 59-61 Goulburn St Sydney NSW 2000 Australia | info@epa.nsw.gov.au | www.epa.nsw.gov.au

The EPA encourages the preparation of strategies, programs and plans as useful tools for industry to ensure that it meets the environmental obligations specified in conditions of Environment Protection Licenses or in legislation.

Should you wish to discuss the above matters, please contact Laura Ansted on (02) 9995 6812.

Yours sincerely

TREVOR WILSON
Unit Head – Waste Compliance
Environment Protection Authority

13.2 Consultation with SSC

Lucas Heights Resource Recovery Park – Air Quality and Odour Management Plan dated October 2017.

SSC have reviewed the above Plan and our comments are detailed below:

General

- SSC would have expected a far more detailed plan than what has been submitted for review. The current AQOMP largely contains information lifted directly from the OEMP. If this detail was sufficient there would be no need for a specific condition of consent requiring an AQOMP. Much of this detail can be sourced from the Air Quality Assessment – Appendix G to the EIS and relevant sections are noted in the table below.

- Air Quality was one of the most environmentally sensitive issues for both the Community and Council and requires full and detailed consideration.

- SSC expectations that the Plan should mirror the Air Quality Assessment – Appendix G in the EIS

- Any Management Plans now and in the future with need to have the following comments inserted " ????? Management Plan must be read in conjunction with the Deed, VPA and the Environmental Management Plans. These nominated documents will form part of the ????? Management Plan. SSC note that SUEZ has referenced these documents, however, require this to be far more specific.

- SUEZ need to be very specific in the Plan that the maximum cumulative odour units to the nearest resident receptor is 2 and define cumulative

- Odour needs to incorporate OEMP sections of Landfill Gas Management and Leachate

- Further clarification is needed as to how the AQOMP will integrate and amend the various OEMPs.

- SSC would recommend that SUEZ include the new Garden Organics Facility and the proposed ARRT in this plan to avoid constant updating of the Air Quality and Odour Management Plan and the need for further management plan approval by various authorities into the future.

Document Specific

Section	Comments	Suggested reference Appendix G – Air Quality Assessment	SUEZ Comment	SSC Response
Section 2 Definitions	Need to be expanded and more specific		Has been expanded as requested by SSC. All abbreviations used in AQOMP have been included in section 2.	OK
Executive Summary	Consider adding to this Management plan Assist in putting the document into context	Executive summary	SUEZ considers that the document is adequately put into context in section 3.	SSC still considers that an Executive Summary would improve the readability of the document as Section 3 is 7 pages long.
Section 3 Introduction				
3.1 Overview	More detail regarding overview and objectives Consider detailing new GO and ARRT Consider the purpose of this document	1 Introduction plus site map figure 1.1 2 Existing regulatory requirements 3 Existing environment	SUEZ considers that the detail regarding overview and Objective is sufficient, however a site map has been added to section 3 as requested by SSC. The new GO and ARRT facilities are not yet constructed. The current GO facility is included in this AQOMP, once constructed the new GO facility will be incorporated into an updated AQOMP. The ARRT facility will be required to have its own AQOMP as per consent condition C17 of SSD6835 The final designs for the new	Site map included. OK While the new GO and ARRT facilities may have individual AQOMPs, it is critical that they also be incorporated into a whole of site AQOMP. The odour performance criteria for the site (e.g., 2OU at nearest receptor) is a cumulative site total. Also triggers under the VPA relate to a particular area of environmental concern, such as odour. This is not odour from a particular facility but overall odour from the site. Therefore, there must be one overarching AQOMP that addresses all odour sources from the site.

			GO and ARRT facilities are not yet finalised.	
3.2 Scope and Objective	Needs to be more specific Reference "Cumulative Odour Units" AQOMP must be read in conjunction with the Deed, VPA and the Environmental Management Plans. These nominated documents will form part of the AQOMP. SSC's view these need to be far more specific for both Air Quality and Dust	1 Introduction Section 8 Odour impact assessment The AQOMP should also include as a minimum Figure 8.4	Reference updated as requested by ssc The Deed and VPA are referenced in the AQOMP, the site operational management plan (OEMP) is the over-arching environmental management document for the site. When completed the AQOMP will form part of the appendix of the OEMP Text indicating that the Deed and VPA must be read In conjunction with the AQOMP has been added to the document as requested bv ssc	See above comments regarding cumulative odour. As part of the OEMP the AQOMP is subject to the same VPA and Deed requirements. Referencing the Deed and VPA is not the same as read in conjunction with a document.
New section Dust	Sampling history could be included	3 Existing environment	4 years of dust sampling data is included in Section 6.1.3	OK
New section Odour	History of complaints or in section 10	3 Existing environment	SUEZ considers that the inclusion of historical complaints many of which are unverified is unnecessary. However, SUEZ has added comment on how seasonal and weather conditions may influence odour complaints for LHRRP.	History of complaints provides a baseline for measurement of current and future performance and is therefore considered relevant.
3.3 Best practice	Needs to reference the various Environmental		The best practice approach is referenced in the OEMP (The over-arching	This section should also include a reference to compliance with the Guidelines for Solid

	Management Plans contained in the EIS		environmental management document for LHRRP) and this has been adopted for AQOMP.	Waste Landfills as per the EIS.
3.4 Legal and Other requirements	Need to reference the Deed and VPA		The Deed and VPA have been added to this section as requested by ssc	OK
Section 4 Key Performance Indicators/targets				
4.2 Odour	More definition regarding cumulative, for all odour sources, should consider defining residential receptor Include; • Improving site gas capture and destruction either by power generation activities or gas flaring as required	6 Justification of odour emission rates	SUEZ considers the KPI's In Section 4 2 are adequate Gas capture and storage covered in Section 8.2	This section should be further updated once the revised GO and ARRT AQOMPs are developed. This revision should state how the cumulative impact of all these facilities is considered in the context of this overarching AQOMP.
Section 4 other	Reference complaint procedure, VPA and Environmental Management Plans		SUEZ considers that complaints management is adequately covered in Section 10 of the AQOMP.	OK

Section 5 Roles and Responsibilities	Complaints should be included and referenced to the complaint procedures and processes, and EPA notification Roles and Responsibilities to include: Reporting requirements to SSC Reporting requirements to EPA SSC review meetings and Community reference group Any changes to OEMP's require sign off by SSC		Section 5 updated to include points relevant to AOOMP, OEMP updates and ssc review meeting process form part of the OEMP and VPA respectfully not this AQOMP.	As the AQOMP forms an appendix to the OEMP and the OEMPs cannot be amended without the approval of SSC it makes sense to note these constraints within the AQOMP. Without this it would cause inconsistencies should an amendment be made to the AQOMP and the corresponding amendment to the OEMP not be supported by SSC.
Section 6 LHRRP Base Line Data	Suggested that this be expanded in line EIS documents Needs far more detail than exist in the current document Both odour and dust	3 Existing environment	SUEZ considers that 4 years of dust data (latest available) adequate. All available TSP data has been included, LHRRP TSP monitor installed in April 2017	Still missing odour data including complaints history.
	Suez should provide a list of odour complaints over the last 5 years as a base line SUEZ could also indicate the remediation action they have taken to alleviate odour issues in the last 3		SUEZ considers that the inclusion of historical complaints many of which are unverified is unnecessary. However, SUEZ has added comment on how seasonal and weather conditions may influence odour complaints for LHRRP.	See above. Odour history provides a baseline for comparison of performance of current and future actions.

	year			
New section	SSC are of the view that this document should include: • New GO facility and relocation and • New ARRT For the reasons explained above		The new GO and ÀRRT facilities are not yet constructed. The current GO facility is included in this AOOMP, once constructed the new GO facility will be incorporated into an updated AQOMP. The ARRT facility will be required to have its own AQOMP as per consent condition C17 of SSD6835. The final designs for the new GO and ARRT facilities are not yet finalised.	While the new GO and ARRT facilities may have individual AQOMPs, it is critical that they also be incorporated into a whole of site AQOMP. The odour performance criteria for the site (e.g., 2OU at nearest receptor) is a cumulative site total. Also triggers under the VPA relate to a particular area of environmental concern, such as odour. This is not odour from a particular facility but overall odour from the site. Therefore, there must be one overarching AQOMP that addresses all odour sources from the site.
	Consider documenting residential receptors	8 Odour impact assessment	The AQOMP considers the nearest residential receptor in Section 4.2	While the AQOMP refers to the nearest residential receptor there is no indication in the document of where this location actually is. If you don't know where it is how can you demonstrate compliance?
Section 7 Potential Emission Sources				
7.1 Dust	Need to include all sources of dust including AART and GO facility Sources of dust, tends to concentrate on processes and does not include areas. While	Refer section 3.6 potential sources of dust	The new GO and ARRT facilities are not yet constructed. The current GO facility is included in this AQOMP, once constructed the new GO facility will be incorporated into an updated AQOMP. The ARRT facility will be required 10 have	See comments above re need for ALL odour sources to be included in one overarching AQOMP. Similar applies to dust sources on the site.

	wheels may generate dust, the haul road may also generate dust even where there are no vehicles on it. Similarly, and area of exposed soil at the tip face or newly covered areas may also generate dust, not just while they have excavators on them.		its own AQOMP as per consent condition e17 of 5506835. The final designs for the new GO and ARRT facilities are not yet finalised. Haul road and exposed soil (as well as all other potential dust sources) are addressed in Section 8.1.	
7.2 Odour	Needs to include all sources of odour including ARRT and GO facility Proposed activities will need to incorporate strip back areas, leachate ponds LH1 and treatment plant	Refer section 3.5 potential sources of Odour	The new GO and ARRT facilities are not yet constructed. The current GO facility is included in this AOOMP, once constructed the new GO facility will be incorporated into an updated AOOMP. The ARRT facility will be required to have its own AOOMP as per consent condition GI7 of SS06835 The final designs for the new GO and ARRT facilities are not yet finalised. Strip back (re-profiling) operations included in Section 8.2 LH1 not part of SSO 6835 and this AOOMP. however SUEZ has added text acknowledging ssc comments in Section 3.	See comments above re need for ALL odour sources to be included in one overarching AQOMP.
7.2 Odour	In addition to above SSC recommend that this area be	Reference table 5.1	SUEZ considers that Section 7 has adequately identified the potential sources	Need to identify future ARRT as a potential source of odour.

	expanded, this list details area of source and expected odour emissions		of odour from LHRRP	
Section 8 Air Quality and Odour Management Measures and Controls	Expand introduction • Overview • VPA and OEMP's • Agreed methodology for complaints	Refer section 10 Mitigation measures	SUEZ considers Section 8 - adequate, prevention/mitigation/rectification measures are included and are consistent with the OEMP, complaint management is adequately covered in Section 10 of the AQOMP.	Not all measures within the OEMPs are included. For example, stockpile limits for the GO facility within the OEMP have not been included. The AQOMP cannot represent a reduction in mitigation and control over the approved OEMPs.
8.1 Dust Management Measures and Controls	Incorporate additional commentary, (including new GO, ARRT and reference constructions)	Refer section 10.5	The new GO and ARRT facilities are not yet constructed. The current GO facility is included in this AQOMP, once constructed the new GO facility will be incorporated into an updated AQOMP. The ARRT facility will be required to have its own AQOMP as per consent condition C17 of SS06835. The final designs for the new GO and ARRT facilities are not yet finalised.	See above comments regarding the need for one overarching AQOMP.
8.2 Odour Measures and Controls	Incorporate additional commentary, (including new GO, ARRT and reference constructions) Reference needs to include stockpiled material both for	Refer section 10.4	The new GO and ARRT facilities are not yet constructed. The current GO facility IS included in this AQOMP, once constructed the new GO facility will be incorporated into an updated AOOMP. The ARRT facility will be required to have	See above comments re inclusion of GO and ARRT into one overarching AQOMP. While reference has been made to EDL data it does not set any action and response criteria. These should be

	GO and ARRT Consider expanding to include: • Landfill Gas Management • Leachate Management As both of these are major sources of potential odour One thing that appeared in the Preferred Project Report and Air Quality Audit is the use of the EDL methane monitoring across the site, as a de-facto measure of odour. In demonstrating that the remedial works in two previous problem areas has been successful, SUEZ have stated that as the methane levels through these areas were below the required 500ppm limit, and that this helped to demonstrate that odour improvement measures are working. At the moment the only monitoring included in the MP for odour is a daily sniff and odour complaints.		its own AQOMP as per consent condition C17 of 5S06835 The final designs for the new GO and ARRT facilities are not yet finalised. SUEZ has included a review of EDL data into the AQOMP as requested by SSC (Section 9.1).	included.

	Integration of the gas monitoring across the site into the Air Quality MP would provide another quantitative measure into the odour management process. Here methods used to limit gas escape and improve gas capture would also be relevant for minimising odours. This probably doesn't mean any additional work on SUEZ's behalf but provides an additional mechanism for odour detection and management and provides for more integrated management of the issue as a whole.			
Other	In section 8 include reference to complaint handling procedures		SUEZ considers that complaints management IS adequately covered In Section 10 of the AQOMP.	OK
Section 9 Air Quality and Odour Monitoring and Reporting				

9.1 Monitoring programme	Needs to reference reporting requirements and reporting to SSC Quarterly review meeting with SSC Community Reference Group 13.1. Section 9.4 needs to reference original OEMPs and VPA. In addition, the Complaint handling procedures .		ssc (VPA) reporting requirements are covered specifically in Section 10.2. SUEZ considers SSC/CRG meetings separate from the AQOMP and are covered by the site OEMP and VPA, both of which must be read in conjunction with the AQOMP as requested by ssc.	OK
9.2	As with 9.1		As above.	See above.
9.3 Monitoring Records	Should reference obligations under the VPA and requirements to SSC		Applicable VPA reporting requirements (complaints) are referenced in Section 10.2.	See above.
9.4 Exceedances and Corrective Actions	Needs to be expanded to reference original OEMPs and VPA. In addition, the Complaint Procedures should be referenced.		Section 9.4 mirrors the information from the site OEMP.	Mention should be made of the actions triggered by the complaints, i.e. internal and external audits and reviews, etc.
Section 10 Complaints and Incident				

Management				
10.1 Complaints	Recommend that a summary be included Complaints and Incident Management deals mainly with reporting requirements rather than actions and procedures followed to rectify and resolve a complaint. There should be some note of the action taken and the hierarchy of response, not just how it is reported		SUEZ considers that complaints management is adequately covered in Section 10 of the AQOMP.	See above.
10.2 VPA Complaint Reporting Requirements	Add detail and expansion of complaint procedure, in line with above		SUEZ considers that complaints management (Including VPA requirements) is adequately covered in Section 10 of the AQOMP	See above.
Section 11 Review				
11.1 General	11.1 Notes the document will be updated as shown in section 12. This should note that OEMP's cannot be varied without express approval of SSC		OEMP requirements are outlined in OEMP not AQOMP.	As the AQOMP forms an appendix to the OEMP and the OEMPs cannot be amended without the approval of SSC it makes sense to note these constraints within the AQOMP. Without this it would cause inconsistencies should an amendment be made to the AQOMP and the corresponding amendment to the OEMP not be supported by

				SSC.
Section 12 References	Deed should be included, VPA and OEMP, these should not be references, should form part of this document.		Both of these documents are already in the reference section (12)	OK

13.3 DEP Comments – 13 December 2017

Kiely, Brian

To: Emma Barnet
Subject: RE: Air Quality and Odour Management Plan for SUEZ Consent SSD 6835

Hi Emma,

My comments are in red. I have attached a revised copy of the AQOMP.

Regards,

Brian

From: Emma Barnet [mailto:Emma.Barnet@planning.nsw.gov.au]
Sent: Wednesday, 13 December 2017 10:33 AM
To: Kiely, Brian <brian.kiely@suez.com>
Cc: Kelly McNicol <Kelly.McNicol@planning.nsw.gov.au>
Subject: RE: Air Quality and Odour Management Plan for SUEZ Consent SSD 6835

Hi Brian,

I have reviewed the Air Quality and Odour Management Plan and have a number of comments that will need to be addressed in a revised plan:

- Please seek final comments from Council on the revised plan.
  SSC informed about AQOMP consultation outcomes at a meeting on 14/12/17 at SSC Chambers, final version sent to SSC on 15/12/17, included in in page 11.
- You'll need to seek approval for the staged submission of management plans in accordance with Condition B14 or update the plan to include the whole development. If staging, this plan will need to explain what stage it covers.
  Email sent to DPE requesting progressive submission of management plans on 14/12/17
- Please update the site layout figure to show the approved development – or if staging, clearly explain that the plan is for stage 1 only.
  AQOMP amended to indicate the stage of the development to which it applies – page 6
- Table 7 describes the monitoring required as 'testing', please describe what testing will be undertaken.
  AQOMP amended to include the extra detail – page 23.
- Please identify the locations to be monitored for odour.
  AQOMP amended to include the odour locations – page 24.
- Section 8 – please be more specific and define strong winds, heavy winds, unsafe conditions (I note that a meteorological station will be installed which I assume will help inform whether there are strong winds), adverse weather conditions and include road speed limits.
  Wind speed and road speed limits have been included in the AQOMP.
- Section 8 - describe the trigger to aerate the leachate dams.
  Levels of ammonia (at the leachate treatment plant) determine whether the leachate dam is aerated. This is to enable nitrification in the leachate dam and reduce the overall ammonia load going to the leachate treatment plant).
- Section 8 – Include the time limit for storage of leachate and trigger for transferring for treatment.
  Leachate is continually being transferred (a 24hr/day process) to the leachate treatment plant for treatment.
- Incident management should reflect the consent and include a requirement to notify the Secretary.
  DPE has been added to the AQOMP immediate contact list – page 27.

Feel free to call me if you have any questions.

1

suez

13 13 35
suez.com.au