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## ELF FARM SUPPLIES MUSHROOM SUBSTRATE FACILITY

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Annual Environmental Management Review



OCTOBER 11, 2022

Document Status		
<b>Author</b> Blake Edwards WHS/HR Manager Elf Farm Supplies Pty Ltd		<b>Reviewer</b> David Tolson General Manager Elf Farm Supplies Pty Ltd
<b>Revision Number</b>	<b>Status</b>	<b>Date</b>
0	Final	15 September 2022

Name of operation	ELF FARM SUPPLIES
Name of operator	ROBERT TOLSON
Development consent / project approval#	MP 08_0255
Name of holder of development consent/project approval	ROBERT TOLSON
Compliance Reporting phase	Operation
Annual Review start date, as per Schedule 5, condition 3	September 2021
Annual Review end date	August 2022

I, David Tolson, certify that this audit report is a true and accurate record of the compliance status of Elf Farm Supplies for the period September 2021 – August 2022 and that I am authorised to make this statement on behalf of Robert Tolson.

*I declare that I have reviewed relevant evidence and prepared the contents of the attached Compliance Report and to the best of my knowledge:*

- the Compliance Report has been prepared in accordance with all relevant conditions of consent;
- the Compliance Report has been prepared in accordance with the Compliance Reporting Post Approval Requirements;
- the findings of the Compliance Report are reported truthfully, accurately and completely;
- due diligence and professional judgement have been exercised in preparing the Compliance Report; and
- the Compliance Report is an accurate summary of the compliance status of the development.

*Notes:*

- Under section 10.6 of the Environmental Planning and Assessment Act 1979 a person must not include false or misleading information (or provide information for inclusion in) a report of monitoring data or an audit report produced to the Minister in connection with an audit if the person knows that the information is false or misleading in a material respect. The proponent of an approved project must not fail to include information in (or provide information for inclusion in) a report of monitoring data or an audit report produced to the Minister in connection with an audit if the person knows that the information is materially relevant to the monitoring or audit. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000; and
- The Crimes Act 1900 contains other offences relating to false and misleading information: section 307B (giving false or misleading information – maximum penalty 2 years' imprisonment or 200 penalty units, or both).

Name of authorised reporting officer	David Tolson
Title of authorised reporting officer	General Manager
Signature of authorised reporting officer	D.W. Tolson
Date	15/9/22



Document Status		
<b>Author</b> Blake Edwards WHS/HR Manager Elf Farm Supplies Pty Ltd		<b>Reviewer</b> David Tolson General Manager Elf Farm Supplies Pty Ltd
<b>Revision Number</b>	<b>Status</b>	<b>Date</b>
0	Final - submitted	15 September 2022
1	Request for additional Information from DoP&E	18 October 2022

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<b>Title of authorised reporting officer</b>	
<b>Signature of authorised reporting officer</b>	
<b>Date</b>	



## 1. Executive Summary

As part of conditions of compliance to the Department of Planning, Industry and Environment's (DPIE) project approval 08\_255 MOD 3(2020), Elf Farm Supplies is required to produce an 'Annual Environmental Management Review' report of the environmental performance of its project and operations.

The purpose of this document is to comply with Condition 3 of Schedule 5 of project approval No 08\_255. MOD 3. Which states as follows:

*"By 30 September 2020, and annually thereafter, unless otherwise agreed by the Secretary, the Proponent must review the environmental performance of the Project to the satisfaction of the Secretary. This review must*

*(a) describe the operations that were carried out during the reporting period;*

*(b) analyse the monitoring results and complaints records of the Project during the reporting period, which includes a comparison of these results against the:*

*i. relevant statutory requirements, limits or performance measures/ criteria;*

*ii. monitoring results of previous years; and*

*iii. relevant predictions in the EA;*

*(c) identify any non-compliance during the reporting period, 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 Project;*

*(e) describe what measure(s) will be implemented during the next reporting period to improve the environmental performance of the Project."*

This report covers the 12-month period between **September 2021 and August 2022**.

It is set out to assess compliance with items (a) to (e) of Condition 3; Schedule 5 as well as review the overall environmental performance of approval 08\_255 MOD 1(2016) project works and operations at the mushroom substrate plant at Mulgrave operated by Elf Farm Supplies for the stipulated period.





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## Abbreviations

AEMR – Annual Environmental Management Review.

EA – Environmental Assessment.

EPA – Environmental Protection Authority.

EPL – Environmental Protection Licence.

EFS – Elf Farm Supplies.

IEA – Independent Environmental Audit.



## 2. Introduction

### Background

Elf Farm Supplies Pty Ltd (EFS) was established at Mulgrave in 1981 and is a family owned Australian Company. Today, EFS is one of the leading Phase 3 mushroom substrate (compost) producers in Australia. We are the largest agricultural enterprise in the Hawkesbury and the only substrate supplier located in the Sydney region. Our products are supplied throughout Australia and are integral to the success of the Australian Mushroom Industry.

In March 2016 the approved modification (MOD1) primarily involved the following upgrades to the site:

- Replacement of the existing method of air exhaust treatment,
- Installation of a new air emissions treatment plant and ancillary works,
- Retrofitting the existing Phase 2 and 3 building,
- Converting the existing Pre-Wet Building for straw wetting and bale breaking operations.

MOD1 was completed on 30<sup>th</sup> June 2018, therefore this Annual report will summarise all operations in the new process.

MOD3 was approved in March 2020 – 08\_0255 MOD3 - Extension of Straw Bale Storage Area and associated works, amended stormwater management system and western tree corridor.

These modifications have not commenced during this reporting period.

### Review Scope

This Annual Environmental Management Review (AEMR) report has been prepared pursuant to Condition 3 of Schedule 5 of Project Approval MP 08\_0255, as well as additional requirements for this and future reports as per letter dated 26<sup>th</sup> October 2018 from the Department of Planning, Industry and Environment in Appendix C.

Table A lists the requirements of this Condition 3.

Environmental Management across the site is the responsibility of the following key positions: Owner, General Manager, Plant Manager, Production Managers can be contacted on 02 4577 5000.



### 3. Operations Overview

EFS operations have been designed and built to produce a phase 3 mushroom substrate that is used for mushroom growing. The site has implemented world leading technology including an exhaust air management system to ensure all environmental goals are met.

The facility produces mushroom substrate by utilising a multi-stage composting process. An overview of the process is as follows:

#### Raw Materials Preparation:

Raw materials preparation involves combining all ingredients including poultry manure, gypsum and seasonal additions ready for internal transfer to bale wetting building. This mix is then colloquially known as the Brew

The straw bales are transported from the bale storage area to the Bale Wetting Building in preparation for the bale wetting process. The bale wetting process involves gradually soaking water through the straw bales to start the composting process;

#### Pre-Wetting:

The wet straw and the brew are blended via conveyors and mixing hoppers in the Bale Wetting Building and transported to a pre-wet bunker. Re-blending is undertaken during the pre-wet stage by removing the straw mix from each bunker and transferring via mixing hoppers and conveyors back into an empty bunker. During the re-blending operation water is continuously added to the straw mix.

#### Phase 1:

The straw mix is processed in bunkers during which temperature and oxygen conditions are controlled;

#### Phase 2:

The substrate is transferred to tunnels to be pasteurised. Pasteurisation removes weed moulds or pests in preparation for spawning;

#### Phase 3:

The pasteurised compost is removed from the tunnel, mushroom spawn is added and transferred into a clean tunnel. The spawn is encouraged to grow throughout the compost by regulating both temperature and oxygen requirements.

#### Exhaust Air Treatment System

Ammonia scrubbers and a large biofilter extract, treat and exhaust the buildings and process air from all potentially odorous plant operations. Exhaust air from the Phase 2 plant is also exhausted through the treatment system for a nominal 36 hour period after Phase 1 transfer.





## 4. Statutory and Regulatory Requirements

### 4.1. Penalty Notices

#### *Penalty Notice issued by NSW Environmental Protection Authority*

There were no penalty notices issued to EFS by the EPA this review period.

#### *Penalty Notice issued by NSW Department of Planning, Industry and Environment*

There were no penalty notices issued to EFS by the DPE this review period.

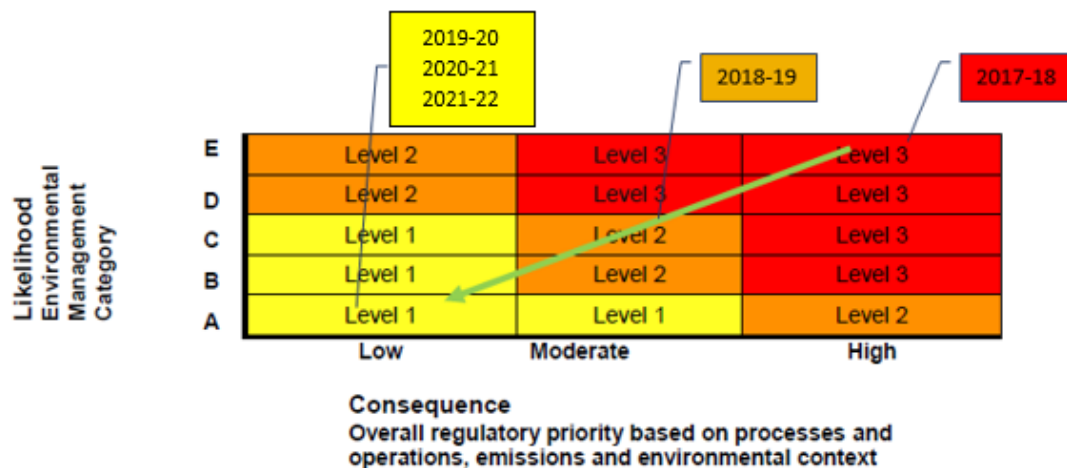
### 4.2. Environmental Protection Licence

There are no non-compliances related to the environmental protection licence No: 6229

#### Licence Variation

Risk Rating continues to be at the lowest level, Level 1 – 2021-22.

The trend in risk ranking has fallen from Level 3 2017-18 prior to MOD1 completion to Level 1 in 2019-20 MOD1 operations, 2 years beyond completion.



#### VARIATION OF LICENCE NO. 6229 (appendix B)

- No variation made during this reporting period

### Annual Returns and Annual Waste Summary

The Annual Return and annual waste summary for 2021 have been lodged in accordance with the NSW EPA requirements. There were no non-compliance incidents that resulted in a Penalty Notice or referrals for this review period.

#### Table A Statement of compliance

Were all conditions of the relevant approval(s) complied with?	
DC 08_0255 MOD3	YES



Table B Compliances Table - Approval 08\_0255

Relevant approval	Condition #	Condition description (summary)	Compliance status	Comment	Where addressed in Annual Review
MP 08_0255	Schedule 2 Condition 1-5	OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT  TERMS OF APPROVAL	Compliant	Reasonable and feasible measure have been undertaken by complying to the conditions below and EPA licence.	
MP 08_0255	Schedule 2 Condition 6	The Proponent must ensure that the Project on the Substrate Plant site does not: a) produce more than 3,200 tonnes per week of phase 1 substrate; b) dispatch more than 1,920 tonnes of phase 3 substrate per week.	Compliant		Table C
MP 08_0255	Schedule 2 Condition 7(2)	Production of up to 2,400 tonnes of phase 1 substrate a week may not occur until the Proponent has received the written approval of the Secretary.	Compliant	Letter Dated 20 <sup>th</sup> December 2019	Addressed in 2019-20 Annual review
MP 08_0255	Schedule 2 Condition 7(3)	Production of up to 3,200 tonnes of phase 1 substrate a week may not occur until the Proponent has received the written approval of the Secretary.	Not triggered		
MP 08_0255	Schedule 2 Condition 8	Mushroom Farm Site	Not triggered	Mushroom farm site not constructed	
MP 08_0255	Schedule 2 Condition 9-12	EXISTING DEVELOPMENT CONSENTS AND RIGHTS TRANSITIONAL ARRANGEMENTS STRUCTURAL ADEQUACY DEMOLITION	Not triggered	No Construction or Demolition was undertaken during reporting period	



Relevant approval	Condition #	Condition description (summary)	Compliance status	Comment	Where addressed in Annual Review
MP 08_0255	Schedule 2 Condition 13	OPERATION OF PLANT AND EQUIPMENT	Compliant	Onsite maintenance crew with an extensive range of specialist contractors. Employee's undertake on the job training and verification	
MP 08_0255	Schedule 2 Condition 14	UTILITIES	Not triggered	No Construction was undertaken during reporting period	
MP 08_0255	Schedule 2 Condition 15	SUBMISSION OF PLANS AND PROGRAMS	Compliant	EMS AND Energy efficiency plan was updated and submitted	Approved copy found on website
MP 08_0255	Schedule 2 Condition 16	EVIDENCE OF CONSULTATION	Not triggered	No consultation was required	
MP 08_0255	Schedule 3 Condition 1	Construction Environmental Management plan Mod 3 Works	Not triggered	Mod 3 works did not commence during the reporting period	
MP 08_0255	Schedule 3 Condition 2	Air Quality	Compliant	Biofilter operational and maintained and annually tested. No complaints received	Appendix E
MP 08_0255	Schedule 3 Condition 3	Odour Emissions plant Design And Construcution	Compliant	MOD 1 completed previous years.	



Relevant approval	Condition #	Condition description (summary)	Compliance status	Comment	Where addressed in Annual Review
MP 08_0255	Schedule 3 Condition 4	Odour Management Plan	Not Triggered	Previously been approved. Reviewed by Department during approval of EMS	Appendix C – letter dated 9 September 2022
MP 08_0255	Schedule 3 Condition 5-6	Biofilter control audit	Compliant	Previously audited	
MP 08_0255	Schedule 3 Condition 7-8	Dust	Compliant	Warning sign is positioned on the exit to the site for all truck to have loads covered.	Section 4
MP 08_0255	Schedule 3 Condition 9	Energy efficiency	Compliant	Updated EEP was submitted to the Department for approval June 2022.	Appendix C
MP 08_0255	Schedule 3 Condition 10	Fire Management – straw bales storage	Compliant	Straw bale site plan Fire equipment and Evacuation drills EPA PIRMP – Pollution incident response management plan	Appendix D
MP 08_0255	Schedule 3 Condition 11	Hazards	Not Triggered	No new hazardous substances. No change to current bulk storage and handling of chemicals.	
MP 08_0255	Schedule 3 Condition 12	Waste	Not Triggered	Only Waste permitted by licence was received	Appendix F
MP 08_0255	Schedule 3 Condition 13	Bunding	Not Triggered	No change to previous storage of chemicals.	





Relevant approval	Condition #	Condition description (summary)	Compliance status	Comment	Where addressed in Annual Review
MP 08_0255	Schedule 3 Condition 14	Soil and Water	Not Triggered	No discharges	
MP 08_0255	Schedule 3 Condition 17	Water Management The Proponent must ensure that the western dam at the Substrate Plant site does not receive process water.  Notes: The dam may receive water from direct rainfall, area runoff and groundwater and during times of emergency.	Compliant	Emergency use only Notification	Section 4
MP 08_0255	Schedule 3 Condition 17(C)	Notwithstanding Condition 17B of Schedule 3, in the event of an emergency such as a high rainfall event or plant breakdown, the Proponent may use the western dam. Notification of any emergency use of the dam must be provided to the Secretary in writing within 7 days of the emergency.	Compliant	March 2022 and July 2022 Hawkesbury Flood events	Section 4
MP 08_0255	Schedule 3 Condition 17D – 17F	Water Management Plan Flood compatible Material	Not triggered	Mod 3 – no commencement of construction of stormwater system.	
MP 08_0255	Schedule 3 Condition 18	Noise	Not triggered	Mod 3 – no commencement of construction of stormwater system.	
MP 08_0255	Schedule 3 Condition 19	The Proponent shall ensure that the operational noise generated by the Substrate Plant site does not exceed the criteria	Compliant	No Change to operations since last noise survey. No Complaints made about noise to trigger additional surveys.	Section 5.1 – table J



Relevant approval	Condition #	Condition description (summary)	Compliance status	Comment	Where addressed in Annual Review
MP 08_0255	Schedule 3 Condition 20	Hours of operation	Compliant	No construction was undertaken during this reporting year	Appendix A As per condition - Operating hours: all days and anytime
MP 08_0255	Schedule 3 Condition 21A	Additional Noise Mitigation measures	Non-compliant	Flood periods caused a shortage of supply of bales, but wall was re-built as supply increased.	Appendix D
MP 08_0255	Schedule 3 Condition 22	Noise Management plan	Not triggered	Previously been approved. Reviewed by Department during approval of EMS	Appendix C – letter dated 9 September 2022
MP 08_0255	Schedule 3 Condition 23	Biodiversity – Riparian Management Area	Compliant	Maintained by 3 <sup>rd</sup> Party contractor. Area reviewed annually.	
MP 08_0255	Schedule 3 Condition 24	Lighting	Compliant	No New external lighting installed No Nuisance complaints	
MP 08_0255	Schedule 3 Condition 24a....24b	24a Landscape Management plan 24b Landscaping around biofilter	Compliant	No Changes made to plan or current landscaping around biofilter.	
MP 08_0255	Schedule 3 Condition 25	Signage	Compliant	No advertising signage	
MP 08_0255	Schedule 3 Condition 26	Transport	Not triggered	No changes to car parking No off site parking	
MP 08_0255	Schedule 3 Condition 27 -31	Protection of public infrastructure Works as executed plans – MOD3 Rail corridor and Associated easements	Not triggered	MOD 3 – no construction commenced.	



Relevant approval	Condition #	Condition description (summary)	Compliance status	Comment	Where addressed in Annual Review
MP 08_0255	Schedule 4 Condition 1-36	Specific Environmental Conditions for Mushroom Farm Site	Not triggered	Construction has not commenced  Conditions apply to Elf Mushrooms Pty Ltd.	A separate AMER report will be submitted from that entity when triggered
MP 08_0255	Schedule 5 Condition 1	Environmental Management Strategy	Compliant	Updated EMS was submitted to the Department for approval June 2022.	Appendix C – letter dated 9 September 2022
MP 08_0255	Schedule 5 Condition 2	Management plans	Compliant	Updated EEP was submitted to the Department for approval June 2022. All other plans also reviewed by department at the time of submission	Appendix C – letter dated 9 September 2022
MP 08_0255	Schedule 5 Condition 3(a)	describe the operations that were carried out during the reporting period;	Compliant		Section 3 page 2
MP 08_0255	Schedule 5 Condition 3(b)	analyse the monitoring results and complaints records of the Project during the reporting period which includes a comparison of these results against the: i. relevant statutory requirements. limits or performance measures/ criteria; ii. monitoring results of previous years; and iii. relevant predictions in the EA;	Compliant	No Complaints for this reporting period Third party audit/monitoring of the biofilter	Section 4 page 11
MP 08_0255	Schedule 5 Condition 3(c)	identify any non-compliance during the reporting period, and describe what actions were (or are being) taken to ensure compliance;	Triggered	Noise wall – As supply of bales is increasing after flood period the noise wall gets re-built.	
MP 08_0255	Schedule 5 Condition 3(d)	identify any trends in the monitoring data over the life of the Project;	Compliant	Biofilter Annual Testing	Appendix E  Section 4 pages 9-11



Relevant approval	Condition #	Condition description (summary)	Compliance status	Comment	Where addressed in Annual Review
MP 08_0255	Schedule 5 Condition 3(e)	describe what measure(s) will be implemented during the next reporting period to improve the environmental performance of the Project."	Compliant		Section 7 page 16
MP 08_0255	Schedule 5 Condition 3A	Two yearly Independent Environmental audit	Not Triggered	Scheduled by March 2023	
MP 08_0255	Schedule 5 Condition 4	Revision of plans	Compliant	Review of plans undertaken and completed November 2021. EMS updated and submitted for approval 26th Nov 2021.	
MP 08_0255	Schedule 5 Condition 5	Reporting incidents	Compliant		Section 4 page 14-11
MP 08_0255	Schedule 5 Condition 6-8	Information	Not triggered	Community consultation strategy already in place. Website already in place and progressively updated	<a href="http://www.elfarmsupplies.com.au">www.elfarmsupplies.com.au</a>





Risk level	Colour code	Description
High	Non-compliant	Non-compliance with potential for significant environmental consequences, regardless of the likelihood of occurrence
Medium	Non-compliant	Non-compliance with: <ul style="list-style-type: none"> <li>· potential for serious environmental consequences, but is unlikely to occur; or</li> <li>· potential for moderate environmental consequences, but is likely to occur</li> </ul>
Low	Non-compliant	Non-compliance with: <ul style="list-style-type: none"> <li>· potential for moderate environmental consequences, but is unlikely to occur; or</li> <li>· potential for low environmental consequences, but is likely to occur</li> </ul>
Administrative non-compliance	Non-compliant	Only to be applied where the non-compliance does not result in any risk of environmental harm (e.g. submitting a report to government later than required under approval conditions)
Not triggered	Not triggered	A requirement has an activation or timing trigger that has not been met at the phase of the development when the compliance assessment is undertaken, therefore an assessment of compliance is not relevant.



#### 4.3.Noise Management and Monitoring

<b>Performance during the reporting period</b>	<p>No Noise Complaints during reporting period</p> <p>No Construction was undertaken during this reporting period.</p>
<b>Trend / key management Actions</b>	<p>There appears to be no significant impact on noise emissions from the site, despite the intermittent reduction in the noise wall on the south side of the bale storage area. Key reason for this is majority of the operations is to the west of this area, indoors and during daytime operations and 50% of straw truck movements in the bale storage area has been kept steady during the hours of 7am and 6pm.</p> <p>Table H,I &amp; J, section 5, shows complaint trends – None for the past 4 years</p>
<b>Proposed management actions.</b>	<p>Complaints will continue to be addressed as per our Complaints Procedure <a href="http://www.elffarmsupplies.com.au/complaints-procedure/">http://www.elffarmsupplies.com.au/complaints-procedure/</a></p>

#### 4.4.Odour Management and Monitoring

<b>Performance during the reporting period</b>	<p>Odour Emissions &amp; biofilter control System audit was conducted.</p>
<b>Trend / key management Actions</b>	<p>This is the 4th full reporting year running the Biofilter emissions system</p> <p>There were zero odour complaints during this reporting period</p> <p>Annual Biofilter testing was conducted June 2022. Biofilter efficiency continues to be greater than 95%.</p> <p>Biofilter MOER (wet) is 63% lower than Odour Impact Assessment estimates.</p> <p>One half of the biofilter was changed out during May 2022</p> <p>Table H,I &amp; J, section 5, shows complaint trends – None for the past 3 years</p>
<b>Proposed management actions.</b>	<p>Continue to monitor complaints and conduct annual Biofilter testing to monitor efficiency.</p> <p>Change out the 2<sup>nd</sup> half of the biofilter during the next reporting period.</p>



#### 4.5. Energy Efficiency Monitoring

<b>Performance during the reporting period</b>	<p>Total electricity consumption for the financial year is 8755 MWh.</p> <p>Averaged weekly electricity is consumed at a rate of 168.0 MWh</p> <p>Electricity consumption per phase 1 tonnage equates to 89 Kwh</p>
<b>Trend / key management Actions</b>	<p>Compared to the electricity consumption per tonnage last year there was no change.</p> <p>Sources of overall increase in consumption include the following:</p> <ul style="list-style-type: none"> <li>• Increased tonnage (8%) required longer operating hours</li> <li>• Covid control measures included splitting shifts increased operation times, usage of machines, exhaust systems and lighting.</li> <li>• Climate changes – warmer winter and wet summer reduces the use of nature's free resources to control the process parameters.</li> </ul> <p>There is a reduction in usage since May. This is due to part of the biofilter media was changed out, reducing the back pressures, allowing fans to run at lower speeds for the same output volumes.</p> <p>A 1.69 MW Solar panel system has been purchased in this reporting period. It will be installed in the next reporting period.</p> <p>Table D,E &amp; F, section 5, shows graphical trends explained above.</p>
<b>Proposed management actions.</b>	<p>The media in the second half of the biofilter will be changed during the next reporting period.</p> <p>Energy saving opportunities will continue to be identified in the following areas: Water pumping and cooling systems, process plant machinery, exhaust air treatment systems, tunnel and bunker fan operations and site facilities.</p>

#### 4.6. Incident Reporting

<b>Performance during the reporting period</b>	Four (4) emergency uses of the Western Dam were reported to the DPIE and EPA								
<b>Trend / key Management Actions</b>	<p>Previous reporting year had two (2) emergency uses of western dam.</p> <p>Two in the current year was during the March and July 2022 flood period in the Hawkesbury.</p> <p>The other two was due to other high rain fall events in November 2021 and February 2022.</p> <table border="1"> <tr> <td>2019</td><td>2</td></tr> <tr> <td>2020</td><td>2</td></tr> <tr> <td>2021</td><td>4</td></tr> <tr> <td>2022</td><td>2</td></tr> </table>	2019	2	2020	2	2021	4	2022	2
2019	2								
2020	2								
2021	4								
2022	2								
<b>Proposed management actions.</b>	<p>The additional 100,000 litres tanks that were installed to increase the first flush storage volumes during a stormwater event, continues to play a big part in the reduction of overflows of the main pit, even during high rain fall events.</p> <p>Incidents continue to be tabled at management meetings for review and any corrective actions will be followed up.</p> <p>The Company is looking at future plans to increase onsite storage and enclose/roof more operation areas to potentially eliminate rainfall from entering our process water systems.</p>								

#### 4.7. Community Information Complaints Handling

<b>Performance during the reporting period</b>	<p>No Complaints had been reported during the period.</p> <p>Feedback line continues to be monitored</p>
<b>Trend / key management actions</b>	<p>3<sup>rd</sup> reporting period of Zero complaints</p> <p>Company culture focused on maintaining compliance and an efficient exhaust system has led to this outstanding result.</p> <p>Table H,I &amp; J, section 5, shows complaint trends</p>
<b>Proposed management actions.</b>	<p>Complaints will continue to be addressed as per our Complaints Procedure <a href="http://www.elffarmsupplies.com.au/complaints-procedure/">http://www.elffarmsupplies.com.au/complaints-procedure/</a></p>





#### 4.8.Dust

<b>Performance during the reporting period</b>	<p>Ground area for bale storage at the eastern end of site was concreted and this has reduced dust events during windy conditions.</p> <p>Access roads are either concrete, sealed or gravelled to minimise dust.</p> <p>All trucks entering and leaving site are required to have loads covered, Signs are placed near the exit to the site.</p>
<b>Trend / key management actions</b>	<p>No Complaints for dust for the life of the project.</p>
<b>Proposed management actions.</b>	<p>Continue to monitor and control potential dust generating activities.</p> <p>During dry windy conditions, dirt areas are wetted down.</p>



## 5. Trend Analysis

Table C Production Summary

Material	Approved limit	Previous reporting period	This Reporting period	Next reporting period
Phase 1 mushroom substrate	2400 T Per week – Schedule 2 Condition 7(2) – Approved 31 <sup>st</sup> October 2019	1780 T per week	1930T per week	Up to 2400T per week

Table D Electricity Use Trend Analysis

Electrical Energy Consumption Annual Summary												
Month	Financial Year 2021-22		Financial Year 2020-21		Financial Year 2019-20		Financial Year 2018-19		Financial Year 2017-18		Financial Year 2016-17	
	Usage (MWh)	Production (Tonnes)	Usage (MWh)	Production (Tonnes)	Usage (MWh)	Production (Tonnes)	Usage (MWh)	Production (Tonnes)	Usage (MWh)	Production (Tonnes)	Usage (MWh)	Production (Tonnes)
July	604.1	7436	625.5	6737	515	6162	524.1	7033	424.5	6905	410.3	5962
August	645.4	9649	597.5	8886	455.4	5916	566	5666	429.1	5524	393.6	7391
September	729.6	7952	668.6	7,137	438.9	7457	547.6	5819	428.6	5534	392	5834
October	785.1	7816	674.6	7,029	478.1	5780	607.9	8256	460.9	6959	416.3	6731
November	731.5	9022	691.3	8,016	532.3	5254	637.1	6565	434.2	5084	415.7	4858
December	755.4	6897	736.1	7,187	592.7	7745	699.5	6610	472.7	5515	474.9	5528
January	818.9	9327	755.9	7,040	739.5	6386	765.3	7833	530	6891	525.9	6947
February	758.6	7,736	678.3	6,990	637.6	6462	643.9	6502	474.3	5559	480.2	5581
March	826.7	7220	630.8	9,075	644.7	8156	701.7	6521	537.8	5525	512.4	5583
April	759.5	7710	729.8	7,252	601.3	6777	581	7977	488.7	6970	442.7	5590
May	703.3	9511	705.0	8606	587.2	6720	569.5	6212	533.3	5607	452.5	6971
June	637.5	8043	620.1	7183	570.3	8362	536.4	7706	572.5	5489	426.1	5528
Total	8755	98319	8113	91138	6793	81998	7380	82700	5787	71562	5343	72504
Energy consumption rate (kWh/tonne)	89		89		82.8		89.2		80.8		73.7	



Table E Electricity per tonne history

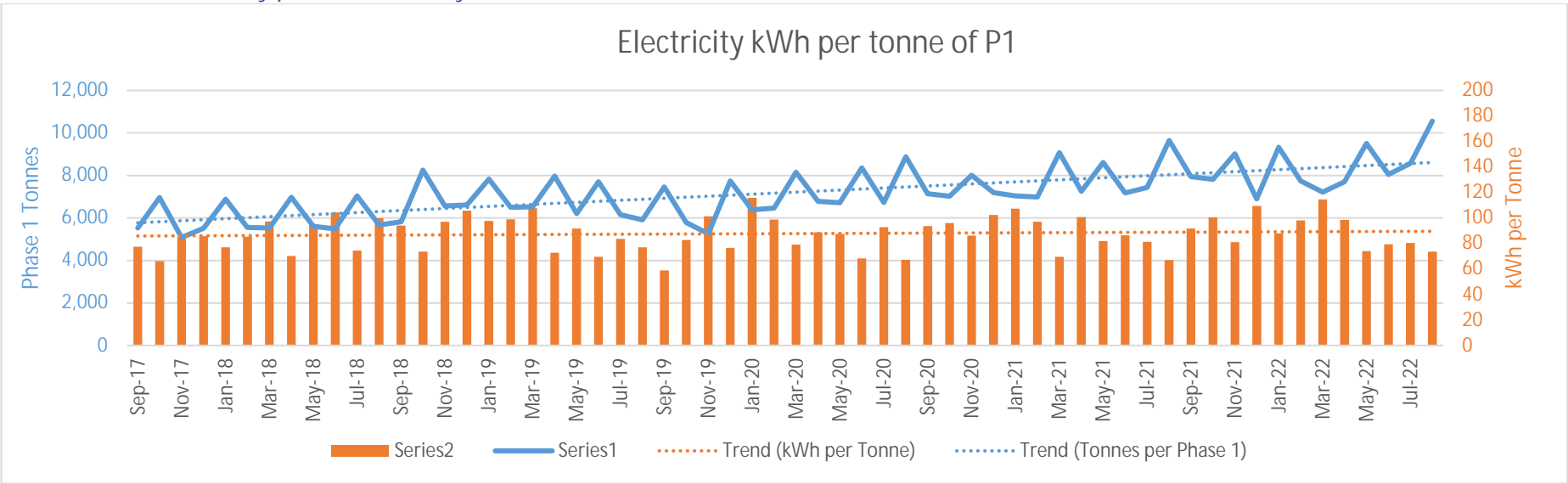


Table F Electricity per tonne this reporting period

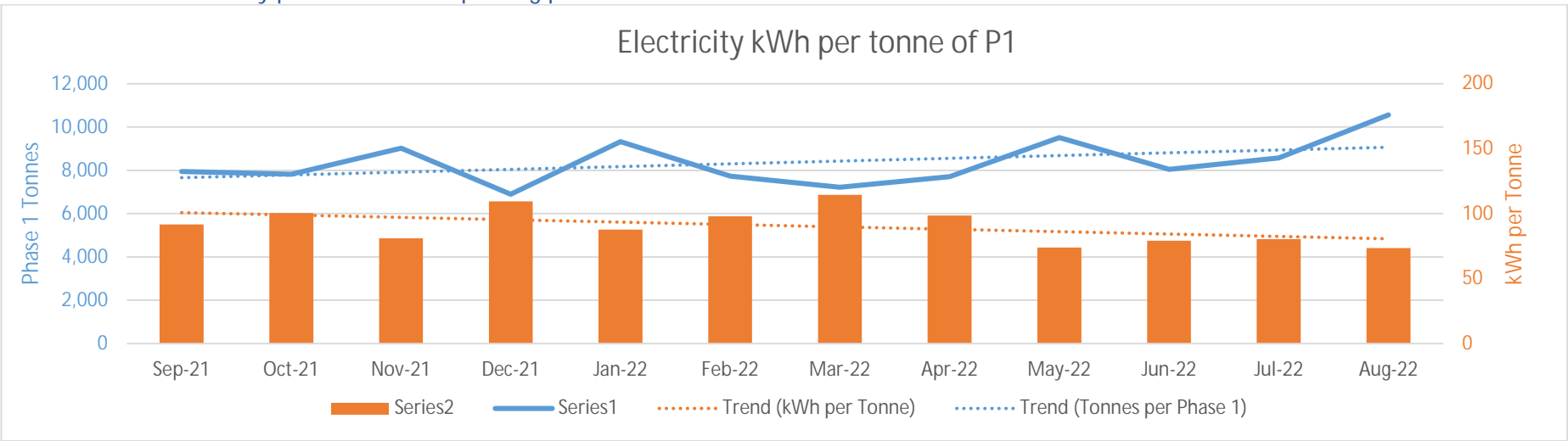




Table G Gas Consumption Trend Analysis

Gas Consumption Annual Summary: 2016 – 2022																							
Review Period (Sept 2016 – Aug 2017)				Review Period (Sept 2017 - Aug 2018)				Review Period (Sept 2018 - Aug 2019)				Review Period (Sept 2019 - Aug 2020)				Review Period (Sept 2020 - Aug 2021)				Review Period (Sept 2020 - Aug 2021)			
Billing Period	Usag e (GJ)	Bill day s	Productio n (Tonnes)	Billing Perio d	Usag e (GJ)	Bill day s	Productio n (Tonnes)	Billing Perio d	Usag e (GJ)	Bill day s	Productio n (Tonnes)	Billing Perio d	Usag e (GJ)	Bill day s	Productio n (Tonnes)	Billing Perio d	Usag e (GJ)	Bill day s	Productio n (Tonnes)	Billing Perio d	Usag e (GJ)	Bill day s	Productio n (Tonnes)
Sept – Nov	461.9	90	17423	Sept - Nov	472.4	90	17577	Aug – Nov	805.6	90	20640	Sept - Nov	882.5	89	18491	Sept – Nov	1013	92	22182	Sept – Nov	808	89	24790
Dec – Feb	487.8	91	18056	Dec – Feb	436.4	90	17965	Nov - Feb	781.9	91	20945	Dec – Feb	893.9	93	20593	Dec – Feb	1034	96	21217	Dec – Feb	939	90	23960
March – May	257.5	90	18144	Mar – May	454	90	18102	Feb – May	884.8	91	20710	Mar – May	884.4	94	21653	Mar – May	736.7	90	21653	Mar – May			24441
June – Aug	399.3	91	17957	June - Aug	470.5	90	18188	May – Aug	957.2	91	19784	Jun – Aug	883.8	93	23985	Jun – Aug	886.3	92	23985	Jun – Aug			27172
Total Gas consumptio n (GJ)	1606.5			1833.3			3429.5			3544.6			3670.7			1747 <sup>1</sup>							
Total production Tonnes	71580			71832			82079			84722			92600			48750							
Total Gas consumptio n rate (kJ/tonne)	22.44 kJ/tonne			25.52 kJ/tonne			41.78 kJ/tonne			41.84 kJ/tonne			39.64 kJ/tonne			35.84 kJ/tonne							

<sup>1</sup> Gas meter stopped working, possibly due to flood water, waiting for it to be replaced.



## 5.1.Complaints Records

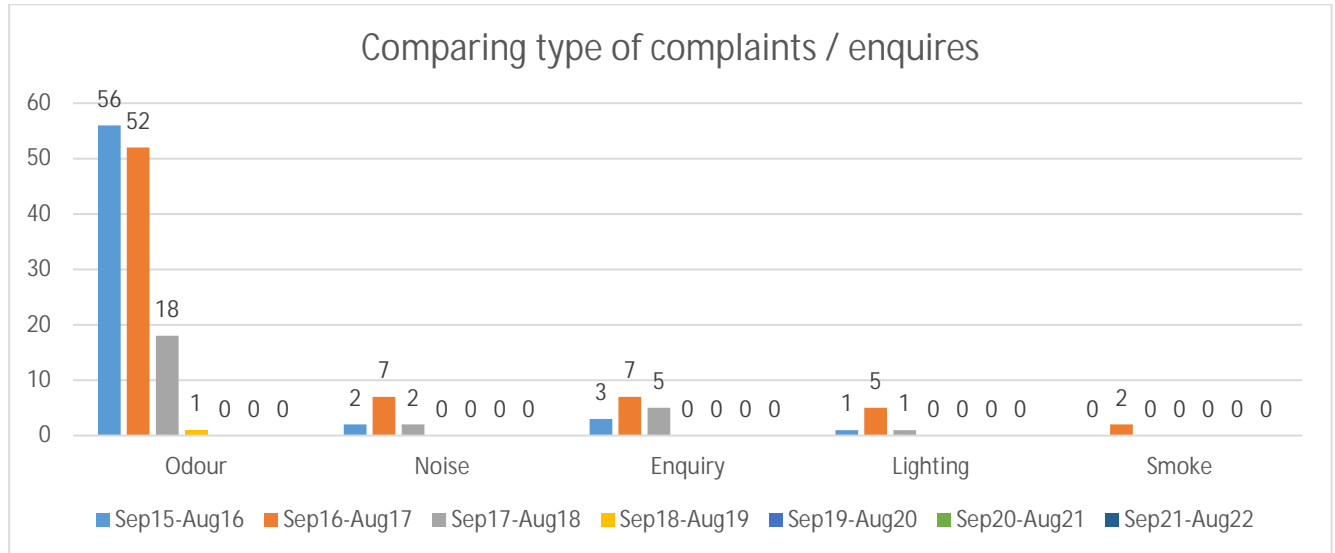
Table H Number of complaints and enquires by reporting period

Reporting period	Number of enquiries and complaints
1 September 2015 to 31 August 2016	59
1 September 2016 to 31 August 2017	69
1 September 2017 to 31 August 2018	26
1 September 2018 to 31 August 2019	1
1 September 2019 to 31 August 2020	0
1 September 2020 to 31 August 2021	0
1 September 2021 to 31 August 2022	0

Table I Odour Complaint Data Analysis

Complaints Period	Number of Complaints	Number of Wind Direction - Confirmed	Number of Wind Direction - Uncertain	Number of No-Location Complaints Given	Mushroom Substrate Process		
					Complaints when undertaking Transfer	Complaints when Blending Phase 1	Complaints when Blending PW
Sept-Dec '12	2	1	1	1	n/a	n/a	n/a
2013	109	43	46	22	22	13	39
2014	68	30	30	9	9	13	17
2015	125	74	32	8	14	44	22
Jan-Sept '16	35	20	15	-	9	22	8
Sept 16 - Oct 17	53	10	21	4	28	12	19
Sept 17 – Aug 18	18	0	16	2	0	11	1
Sept 18 – Aug 19	1	1	0	0	0	0	0
Sept 19 – Aug 20	0	0	0	0	0	0	0
Sept 20 – Aug 21	0	0	0	0	0	0	0
Sept 21 – Aug 22	0	0	0	0	0	0	0
Totals	411	179	161	46	82	115	106

Table J Complaints trending



## 6. Action Items from Previous Annual Review

Energy efficiency measures – HID lighting in main working halls have been replaced with LED lighting

## 7. Forecast and Proposed Environmental Improvements

Proposed management actions are detailed in each section 4.3 to 4.9.

Review of Management plans during the reporting period 2022-23.

### Next Annual Review

The next annual review is due in a year, which is by the end of September 2023 as per the requirements in Condition 3 Schedule 5 of project approval No 08\_255.



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## APPENDIX A

### CONSOLIDATED PROJECT APPROVAL 08\_055 MOD3

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# Project Approval

## Section 75J of the *Environmental Planning and Assessment Act 1979*

As delegate for the Minister for Planning and Infrastructure, I approve the project application referred to in Schedule 1, subject to the conditions in Schedules 2 to 5.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the Project.

Richard Pearson  
Deputy Director-General

Sydney

2011

### SCHEDULE 1

<b>Application No:</b>	08_0255
<b>Proponent:</b>	Elf Farm Supplies Pty Ltd and Elf Mushrooms
<b>Approval Authority:</b>	Minister for Planning and Infrastructure
<b>Substrate Plant Site Land:</b>	Lot 14 DP 1138749 and part Lot 13 DP 1138749 108 Mulgrave Road, Mulgrave
<b>Mushroom Farm Site Land:</b>	Lot 138 DP 752037, 521 The Northern Road, Londonderry
<b>Project:</b>	Elf Substrate Plant and Elf Mushroom Farm Project



## DEFINITIONS

AHD	Australian Height Datum
APZ	Asset Protection Zone
ARI	Average Recurrence Interval
BCA	Building Code of Australia
CEMP	Construction Environmental Management Plan
Construction	The demolition of buildings or works, carrying out of works, including bulk earthworks, and erection of buildings and other infrastructure covered by this approval
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
Department	NSW Department of Planning, Industry and Environment or its successors in title
DPIE Water	Department of Planning, Industry and Environment Water Division
<del>Director General</del>	<del>Director General of the Department (or delegate)</del>
EA	Environmental assessment titled Mushroom Industry Expansion in Western Sydney – Environmental Assessment dated December 2010 and the associated response to submissions, dated 17 March 2011 and 15 June 2011
EESG	Environment, Energy and Science Group of the Department of Planning, Industry and Environment.
ENM	Excavated Natural Material
EPA	Environment Protection Authority <del>of OEH</del>
EP&A Act	Environmental Planning & Assessment Act 1979
EP&A Regulation	Environmental Planning & Assessment Regulation 2000
EPL	Environment Protection Licence
Evening	The period from 6pm to 10pm
Feasible	Feasible relates to engineering considerations and what is practical to build
Heavy Vehicle	Any vehicle with a gross vehicle mass of 5 tonnes or more
Incident	An incident causing or threatening material harm to the environment, and/or an exceedance of the limits or performance criteria in this approval
Land	In general, the definition of land is consistent with the definition in the EP&A Act.
LGA	Local government area
Material harm to the environment	Harm to the environment is material if it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
Minister	Minister for Planning <del>and Infrastructure</del>
Mitigation	Activities associated with reducing the impacts of the Project
MOD 1	The modification as described in the Environmental Assessment, titled <i>Mushroom Substrate Plant Modification to Approved Project Environmental Assessment</i> dated February 2015, prepared by Perram and Partners, the letter Response to Submissions titled <i>Mushroom Substrate Plant, Mulgrave Application to Modify Project Approval and Concept Plan Approval (08_0255 MOD 1)</i> , dated 29 August 2015, prepared by Perram and Partners and the <i>Assessment of Biofilter Filling</i> dated 17 December 2015, including the letter by WMA Water dated 21 January 2016, prepared by Perram and Partners
MOD 2	The modification as described in the Environmental Assessment titled <i>MUSHROOM FARM Proposed Section 75W Modification to Concept Plan (MP 08-0225) Elf Mushroom Farm</i> dated August 2016, prepared by Urban City Consulting, as amended by the Response to Submissions titled <i>ENVIRONMENTAL ASSESSMENT MUSHROOM FARM Proposed Section 75W Modification to (MP 08-0225) Elf Mushroom Farm</i> prepared by Urban City Consulting and dated August 2018 including the letter from Northern Auto Wreckers dated 28 August 2018, as revised by the additional Response to Submissions sent by email on 21 February 2019 from Greg Hall of Urban City Planning and email received from Greg Hall on 6 June 2019.
MOD 3	The modification as described in the Environmental Assessment, titled <i>Mushroom Substrate Plant Project Modification No 3 Environmental Assessment</i> dated May 2018, prepared by Perram and Partners, the letter Response to Submissions titled <i>RE: Elf Farm Supplies Mushroom Substrate Plant, Mulgrave Responses to</i>

Mushroom Farm site	<i>Submissions – MOD 3 dated 13 November 2018, prepared by Perram and Partners and the letter titled RE: Elf Farm Supplies Mushroom Substrate Plant, Mulgrave Responses to Submissions – MOD 3 dated 30 January 2019, prepared by Perram and Partners</i>
Night	Lot 138 DP 752037 521 The Northern Road, Londonderry The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
Noise Wall	As described in the EA, and as modified by MOD 2
Noise Barrier	Located at the Substrate Plant site and as described in MOD 3
NOW	NSW Office of Water
Odour emissions plant	Ammonia scrubbers and biofilter as described in MOD 1
OEH	Office of Environment and Heritage
Operation (Mushroom farm site)	Operation commences when the Substrate Plant increases production above 1,000 tonnes of substrate per week
Operation (Substrate Plant site)	Operation commences upon receipt of substrate at the Mushroom Farm site
OTMP	Operational Traffic Management Plan
PCA	Principal Certifying Authority
Phase 1 substrate	Substrate that has been through the composting process only
Phase 2 substrate	Phase 1 substrate that has been pasteurised at high temperature
Phase 3 substrate	Phase 2 substrate that contains mushroom spawn
POEO Act	Protection of the Environment Operations Act 1997
Project	The development described in the EA, comprising the construction and operation of a mushroom farm at 521 The Northern Road, Londonderry; and the expansion of the existing mushroom substrate plant at 108 Mulgrave Road, Mulgrave; as modified by the conditions of this approval
Proponent	Elf Farm Supplies Pty Ltd and Elf Mushrooms or their successor in title
Reasonable	Reasonable relates to the application of judgment in arriving at a decision, taking into account: mitigation benefits, costs of mitigation versus benefits provided community views, and the nature and extent of potential improvements.
Rail Corridor	The Richmond railway line and associated infrastructure, adjoining the southern boundary of the Substrate Plant site.
Rehabilitation	The treatment or management of land disturbed by the Project for the purpose of establishing a safe, stable and non-polluting environment
RTA	Roads and Traffic Authority
RMS	NSW Roads and Maritime Services
Secretary	Planning Secretary of the Department of Planning, Industry and Environment, or nominee
SRDAC	Sydney Regional Development Advisory Committee
Stages 1 to 5 at the Mushroom Farm site	The development stages shown on the plan in Appendix 4
Stages 1 to 2 3 at the Substrate Plant site	The development stages shown on the plan in Appendix 2
Statement of Commitments	The Proponent's Statement of Commitments in Appendix 1
Substrate	Mushroom growing medium
Substrate Plant site	Lot 14 DP 1138749 and part Lot 13 DP 1138749, 108 Mulgrave Road, Mulgrave
Vegetation Management Area	The area shown on the Plan in Appendix 5
VENM	Virgin Excavated Natural Material
WMP	Water Management Plan

## SCHEDULE 2 ADMINISTRATIVE CONDITIONS

### OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

1. The Proponent **must** implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, operation or decommissioning of the Project.

### TERMS OF APPROVAL

2. The Proponent **must** carry out the Project **generally** in accordance with the:
  - (a) EA;
  - (b) statement of commitments (see Appendix 1);
  - (c) site layout plans and drawings in the EA; **and**
  - (d) **MOD 1; and**
  - (e) **MOD 2; and**
  - (f) **MOD 3.**
3. If there is any inconsistency between the above, the conditions of this approval **must** prevail to the extent of any inconsistency.
4. The Proponent **must** comply with any reasonable requirement/s of the **Secretary** arising from the Department's assessment of:
  - (a) any reports, plans, strategies, programs or correspondence that are submitted in accordance with this approval; and
  - (b) the implementation of any actions or measures contained in these reports, plans, strategies, programs or correspondence.
5. This approval **must** lapse if the Proponent does not physically commence the proposed development associated with this approval within 5 years of the date of this approval.

### LIMITS ON APPROVAL

#### Substrate Plant Site

6. (1) The Proponent **must** ensure that the Project on the Substrate Plant site does not:
  - a) produce more than 3,200 tonnes per week of phase 1 substrate; subject to (2) below and
  - b) dispatch more than 1,920 tonnes of phase 3 substrate per week.(2) The proponent must not produce on the Substrate Plant site more than 1,000 tonnes of phase 1 substrate per week except in accordance with a staged approval granted by the **Secretary** in accordance with condition 7 Schedule 2 below.
7. (1) The Proponent may apply to the **Secretary** for approval to increase production of substrate up to the rate of 1,600 tonnes of phase 1 substrate a week on the Substrate Plant site if –
  - a) the Odour Management Plan required under condition 6 of Schedule 4 has been prepared to the satisfaction of the **Secretary** and is being implemented; and
  - b) an independent odour audit has been prepared and submitted in accordance with condition 5 of Schedule 3.(2) The Proponent may apply to the **Secretary** for approval to increase production of substrate up to the rate of 2,400 tonnes of phase 1 substrate a week on the Substrate Plant site if –
  - a) the site has been producing phase 1 substrate at a rate between 1,500 and 1,600 tonnes per week in accordance with an approval granted by the **Secretary** under this condition; and
  - b) an independent odour audit of the site operating in this range has been prepared and submitted in accordance with condition 5(c) of Schedule 3.

**Production of up to 2,400 tonnes of phase 1 substrate a week may not occur until the Proponent has received the written approval of the Secretary.**

(3) The Proponent may apply to the **Secretary** for approval to increase production of substrate up to the rate of 3, 200 tonnes of phase 1 substrate a week on the Substrate Plant site if –
  - a) the site has been producing phase 1 substrate at a rate between 2,300 and 2,400 tonnes per week in accordance with an approval granted by the **Secretary** under this condition; and
  - b) an independent odour audit of the site operating in this range has been prepared and submitted in accordance with condition 5(c) of Schedule 3.



Production of up to a maximum of 3,200 tonnes of phase 1 substrate a week may not occur until the Proponent has received the written approval of the Secretary.

- (4) In deciding whether to approve an increase in substrate production under this condition, the Secretary must:
- assess the odour performance of the premises at its current rate of production; and
  - assess the likely odour impacts from the proposed increase; ~~and~~
  - consider the requirement not to cause or permit the emission of offensive odours from the Substrate Plant site as defined in section 129 of the POEO Act; ~~and~~
  - consider EPA advice regarding compliance with the POEO Act.
- 7A. Unless otherwise agreed in writing by the Secretary, the Proponent must ensure that the work associated with MOD 1, with the exception of the additional Phase 2/3 tunnels and the pre-wet tunnels to be constructed as part of Stage 3 (as identified on the plan in Appendix 2), has been constructed and is operating within two years from the date of the approval of MOD 1.
- 7B. The Proponent must maintain the MOD 3 tree corridor identified in Appendix 2, Figure 1 of this approval for the duration of operation of the Substrate Plant site.

#### Mushroom Farm Site

8. The Proponent must ensure that the Mushroom Farm site does not produce more than 220 tonnes mushrooms per week. Records of weekly mushroom production levels and details of the break-down of total volume distributed must be kept on site at all times and made immediately available to the Secretary on request.

#### EXISTING DEVELOPMENT CONSENTS AND RIGHTS

9. The Proponent must surrender all existing development consents in accordance with Clause 97 of the EP&A Regulation for the land referred to in Schedule 1, within 12 months of commencement of stage 1 operations, or as otherwise agreed by the Secretary.

*Note: This requirement does not extend to the surrender of construction and occupation certificates for existing and proposed building works under Part 4A of the EP&A Act. Surrender of a consent or approval should not be understood as implying that works legally constructed under a valid consent or approval can no longer be legally maintained or used.*

#### TRANSITIONAL ARRANGEMENTS

10. All existing environmental management plans that apply to the Substrate Plant site under DA No. 0623/02, DA No. 0571/06, DA No. 0921/06, DA No. 0701/07 and DA No. 0120/09 must continue to be fully applied until replaced under this approval.

#### STRUCTURAL ADEQUACY

11. The Proponent must ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures are constructed in accordance with the relevant requirements of the BCA.

Notes:

- Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works.
- Part 8 of the EP&A Regulation sets out the requirements for the certification of the Project.

- 11A. The Proponent must ensure that any structures which require a relevant alternative solution developed to meet the performance requirements of the BCA must be designed in consultation with Fire and Rescue NSW.

#### DEMOLITION

12. The Proponent must ensure that all demolition work is carried out in accordance with Australian Standard AS 2601:2001: The Demolition of Structures, or its latest version.

#### OPERATION OF PLANT AND EQUIPMENT

13. The Proponent must ensure that all plant and equipment used for the Project is:
- maintained in a proper and efficient condition; and
  - operated in a proper and efficient manner.

## UTILITIES

14. Prior to the construction of any utility works, the Proponent **must** obtain the necessary approvals from relevant service providers.

## SUBMISSION OF PLANS OR PROGRAMS

15. With the written approval of the **Secretary**, the Proponent may:
- (a) submit any reports, plans, strategies or programs required by this approval on a progressive basis; and
  - (b) combine any reports, plans, strategies or programs required for the Substrate Plant site with any similar reports, plans, strategies or programs for the Mushroom Farm site.
  - (c) separate any reports, plans, strategies or programs required for the Substrate Plant site from any similar reports, plans, strategies or programs for the Mushroom Farm site.

## EVIDENCE OF CONSULTATION

16. Where conditions of this approval require consultation with an identified party, the Proponent must:
- (a) consult with the relevant party prior to submitting the subject document to the Secretary for approval; and
  - (b) provide details of the consultation undertaken including:
    - (i) the outcome of that consultation, matters resolved and unresolved; and
    - (ii) details of any disagreement remaining between the party consulted and the Proponent, and how the Proponent has addressed the matters not resolved.
-

**SCHEDULE 3  
SPECIFIC ENVIRONMENTAL CONDITIONS – SUBSTRATE PLANT SITE**

**CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN**

1. The Proponent **must** prepare and implement a Construction Environmental Management Plan for the Substrate Plant site to the satisfaction of the **Secretary**. This Plan must:
  - (a) be prepared in consultation with **DPIE Water** and **the EPA**;
  - (b) be submitted for approval prior to commencement of construction, and include:
    - a noise and vibration management plan, including a noise monitoring program that can be used to demonstrate compliance with the construction noise criteria in Condition 18 below;
    - an air quality management plan;
    - a soil and water management plan, including details of the erosion and sediment control measures to be used on site;
    - a flora and fauna management plan;
    - a heritage management plan;
    - a traffic management plan; and
    - a waste management plan.
- 1A. The Proponent **must** update the CEMP required by Condition 1 of Schedule 3 to include the works associated with MOD 1. The updated plan **must** be submitted to and approved by the Secretary prior to the commencement of any construction works associated with MOD 1.

**The revised CEMP must be implemented throughout the construction works.**

**Updated CEMP – MOD 3 Works**

- 1B. Prior to the commencement of the MOD 3 construction works, the Proponent must prepare an updated Construction Environmental Management Plan (CEMP) for the Substrate Plant site to the satisfaction of the Secretary. The updated CEMP must:
  - (a) be prepared in accordance with the requirements of Schedule 3, Condition 1 and Schedule 5, Condition 2 of this approval;
  - (b) be prepared in consultation with Sydney Trains;
  - (c) detail the measures that are to be implemented to minimise impacts associated with the MOD 3 construction works; and
  - (d) include:
    - (i) plans which confirm the stormwater management system will not result in pooling or stormwater impacts to the Rail Corridor; and
    - (ii) certification from a suitably qualified and experienced geotechnical or structural engineer which confirms the construction of the noise barrier and filling of the open bale storage area will not impact upon the adjacent Rail Corridor.
- 1C. The Proponent must:
  - (a) not commence the MOD 3 construction works until the updated CEMP is approved by the Secretary; and
  - (b) implement the most recent version of the updated CEMP approved by the Secretary for the duration of the MOD 3 construction works.

**AIR QUALITY**

**Offensive Odours**

2. The Proponent **must** not cause or permit the emission of offensive odours from the Substrate Plant site, as defined under Section 129 of the POEO Act.
- ~~3. The Proponent shall design, operate and maintain the bio-scrubber stacks at the Substrate Plant site in a manner that would achieve emissions compliance with the EPL for the Substrate Plant site. The Proponent must advise the Department of any variations to the EPL as approved by the EPA.~~

**Odour Emissions Plant Design and Construction**

3. Prior to the commencement of construction of the works associated with MOD 1, the Proponent **must** commission and pay the full cost of an independent odour specialist to review the detailed design of the odour emissions plant and assess its capacity to meet the performance criteria within the Environmental Assessment for MOD 1. The review **must**:
  - (a) be provided to the Secretary and the EPA within two weeks of finalisation of the review; and

- (b) be endorsed by the Secretary in consultation with the EPA prior to the commencement of construction of the works associated with MOD 1.

Should the review not certify that the odour emissions plant has the capacity to meet the performance criteria within the Environmental Assessment for MOD 1, then the Proponent **must** undertake additional design to meet the criteria, to the satisfaction of the Secretary within the timeframe specified by the Secretary. The additional design is to be endorsed by the independent odour specialist.

- 3A. The Proponent **must** construct the odour emissions plant in accordance with the final design endorsed by the independent odour specialist required by Condition 3.
- 3B. Prior to the commencement of operation of the odour emissions plant, the Proponent **must** commission and pay the full cost of an independent odour specialist to certify that the 'as constructed' odour emissions plant has been undertaken in accordance with the final detailed design with reference to the Environmental Assessment for MOD 1 and the outcomes of Condition 3 of Schedule 3.
- A copy of the certification is to be provided to the Secretary and the EPA within one week of its finalisation.
- 3C. The Proponent **must** implement all reasonable and feasible measures to ensure that all new structures are constructed to prevent corrosion from the atmosphere contained within those structures.

#### **Odour Management Plan**

4. The Proponent **must** prepare and implement an Odour Management Plan for the Substrate Plant site to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with the EPA by a suitably independent, qualified and experienced expert whose appointment has been endorsed by the Secretary;
  - (b) be submitted to the Secretary for approval within 3 months of the date of this approval;
  - (c) describe in detail the measures that would be implemented on site to minimise the odour impacts of the Project, such as storing the stable bedding in the pre-wet shed extension building in Stages 2 and 3, and to ensure that these measures remain effective over time;
  - (d) identify triggers for remedial and contingency action; and
  - (e) include a program for monitoring the odour impacts of the Project.
- 4A. The Proponent **must** update the Odour Management Plan for the Substrate Plant site, in consultation with the EPA, to the satisfaction of the Secretary. This plan is to update the plan approved under Condition 4 of Schedule 3 and **must**:
- (a) be prepared a suitably independent, qualified and experienced expert whose appointment has been endorsed by the Secretary;
  - (b) be submitted to the Secretary for approval within one month of the date of endorsement by the Secretary of the odour emissions plant design as required under Condition 3(a) of the approval;
  - (c) identify of all major sources of odour;
  - (d) include management measures to ensure no offensive odours from the Substrate Plant site;
  - (e) include procedures for the monitoring of odour emissions, in accordance with the requirements of the Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales and any requirements of the EPA. The odour monitoring program **must** include, but not be limited to:
    - i. results of the complaints handling system; and
    - ii. system and performance review for continuous improvement;
  - (f) include odour management performance parameters that are consistent with the manufacturers' performance guarantees provided for the biofilter and scrubbers;
  - (g) include measures to prevent and/or mitigate fugitive emissions;
  - (h) include triggers for remedial and contingency action; and
  - (i) include contingency measures in the event of failure of any component of the odour emissions plant and biofilter system or identification of fugitive emissions from the facility. Contingency measures **must** include enclosing the West Water Recycle pit and treating the post 36 hour emissions from the Phase 2/3 building via the ammonium scrubbers and biofilter.
- 4B. The approved updated Plan (as revised and approved by the Secretary from time to time), **must** be implemented for the life of the Project as soon as written endorsement by the Secretary is received.

#### **Odour Management Audit**

- ~~5. Prior to commencement of operation of each development stage at the Substrate Plant site, the Proponent shall commission and pay the full cost of an Independent Odour Audit on the site. This audit must:~~
- ~~(a) be prepared in consultation with EPA by a suitably qualified, experienced and independent expert whose appointment has been endorsed by the Director General;~~
  - ~~(b) assess the effectiveness of the odour controls on site in protecting receivers against offensive odours;~~



- ~~(c) review the Proponent's production data (that are relevant to the odour audit) and complaint records;~~
- ~~(d) review the effectiveness Odour Management Plan for the Project and advise whether any changes to the Plan is considered necessary;~~
- ~~(e) determine whether the Project is complying with condition 2 above; and, if necessary,~~
- ~~(f) recommend whether additional measures are required to minimise the odour emissions of the Project, such as enclosing the bale wetting area and water recycling pits and enclosing the chicken manure storage area.~~

#### **Odour Emissions and Biofilter Control System Audit**

5. The Proponent **must** undertake an Odour Emissions and Biofilter Control System Audit to quantify the odour abatement efficiency of the odour emissions plant and assess the effectiveness of all other odour controls on the Substrate Plant site:
  - (a) within six weeks of the commissioning of the biofilter;
  - (b) within six weeks of the decommissioning of the bioscrubber;
  - (c) prior to the commencement of each increase in production, in accordance with Conditions 7(2) and 7(3) of Schedule 2;
  - (d) and as directed by the Secretary;
  - (e) each audit required under (a) to (d) inclusive, **must**:
    - i. be undertaken and prepared by a suitably qualified, experienced and independent expert whose appointment has been endorsed by the Secretary;
    - ii. be prepared in consultation with the EPA;
    - iii. report on the results of the source emissions sampling and analysis undertaken in accordance with the Odour Management Plan (required by Condition 4A of Schedule 3) or as otherwise agreed to in writing by the EPA;
    - iv. review the Proponent's production data (that are relevant to the audit) and complaints record;
    - v. review any complaints received during the relevant period;
    - vi. determine whether the Project is complying with condition 2 of Schedule 3; and, if necessary;
    - vii. recommend whether any additional management works and/or management practices are required to ensure no offensive odours from the Substrate Plant site.
6. Within 2 weeks of this audit being completed, or in a timeframe as otherwise agreed by the **Secretary**, the Proponent **must** submit a copy of the audit report to **EPA** and the **Secretary** together with an action plan demonstrating how the findings of the audit are to be implemented.
- 6A. Two months after the completion of the audits required under Conditions 5 (a) and 5(b) of Schedule 3, the Proponent **must** submit to the satisfaction of the Secretary, a report verifying that any actions identified in the audit have been implemented.

#### **Dust**

7. The Proponent **must** implement all reasonable and feasible measures to minimise dust generated at the Substrate Plant site.
8. During the construction and operation of the project, the Proponent **must** ensure that:
  - (a) all trucks entering or leaving the Substrate Plant site with loads have their loads covered;
  - (b) the trucks associated with the Project do not track dirt onto the public road network;
  - (c) all areas are maintained in a condition to minimise the emission of wind-blown or traffic-generated dust, to the satisfaction of the **Secretary**.

#### **GREENHOUSE GAS**

##### **Energy Efficiency Plan**

9. The Proponent **must** prepare and implement an Energy Efficiency Plan on the Substrate Plant site to the satisfaction of the **Secretary**. This plan must:
  - (a) be submitted to the **Secretary** for approval prior to the commencement of operations on the site;
  - (b) describe the measures that would be implemented to minimise energy use on the site;
  - (c) explore the possibility of using renewable energy use to generate power; and
  - (d) include a program to monitor the effectiveness of these measures, and a protocol to periodically review the plan.



## SITE OPERATION

### Fire Management

10. The Proponent **must**:
- (a) implement suitable measures to minimise the risk of fire on the Substrate Plant site;
  - (b) ensure straw bales stored in the open bale storage area are:
    - (i) readily accessible by firefighting crews; and
    - (ii) separated from buildings and other assets (excluding the noise barrier and northern perimeter wall) to prevent a fire from spreading;
  - (c) extinguish any fires on the Substrate Plant site promptly; and
  - (d) maintain adequate fire-fighting capacity on the Substrate Plant site.

### Hazards

- ~~11. The Proponent shall ensure that all dangerous goods and hazardous substances are stored and handled on the Substrate Plant site in accordance with the Dangerous Goods Code and AS 1940-2004: The storage and handling of flammable and combustible liquids.~~
11. The Proponent **must** ensure that all dangerous goods and hazardous substances are stored and handled on the Substrate Plant site in accordance with the Dangerous Goods Code and AS 1940-2004: *The storage and handling of flammable and combustible liquids* and AS 3780-2008 *The Storage and Handling of Corrosive Substances*.

### Waste

12. The Proponent must not cause, permit or allow any waste generated outside the Substrate Plant site to be received at the site for storage, treatment, processing, reprocessing or disposal of at the Substrate Plant site, except with the approval of the **Secretary** and as expressly permitted by a licence under the *Protection of the Environment Operations Act 1997*.

### Bunding

13. The Proponent **must** store all chemicals, fuels and oils used on the Substrate Plant site in appropriately bunded areas, with impervious flooring and sufficient capacity to contain 110% of the largest container stored within the bund, unless double-skinned tanks are used. Any bunds **must** be designed and installed in accordance with the requirements of all relevant Australian Standards, and/or DECCW's *Storage and handling liquids: Environmental Protection – Participant's Manual*.

## SOIL and WATER

### Discharge Limits

14. Except as may be expressly provided by an EPL for the Substrate Plant site, the Proponent must comply with Section 120 of the POEO Act.
15. The Proponent **must** ensure that only VENM and/or ENM or material approved by the **EPA** is used as fill.
16. The Proponent **must** ensure that filling of the manoeuvring area **must** be undertaken in accordance with plans submitted with DA 0571/06.
- 16A. The Proponent **must** ensure that the earthworks associated with the biofilter pad do not act as a source of sedimentation. The Proponent **must** stabilise the area of fill associated with the biofilter within one week of the approval of MOD 1.
- 16B. Prior to the commencement of construction of the biofilter, the Proponent **must** submit to the **Secretary**, details demonstrating that the earthworks in the area of the biofilter have been:
- (a) undertaken in accordance with AS 3798; and
  - (b) compacted to 98% Standard dry density ratio (AS1289 E4.1).

### Water Management Plan

17. The Proponent **must** prepare and implement a Water Management Plan for the Substrate Plant site to the satisfaction of the **Secretary**. The plan must be submitted to the **Secretary** for approval prior to the commencement of operation of Stage 1 and be prepared in consultation with **EPA** and **NOW**.

- 17A. The Proponent **must** prepare an updated Water Management Plan for the Substrate Plant site required by Condition 17 of Schedule 3 to include the works associated with MOD 1. The plan **must** be submitted to the Secretary for approval prior to the commencement of operation of MOD 1.

Operation of works associated with MOD 1 **must** not commence until the Proponent has received written approval of the plan. The approved Plan **must** be implemented for the life of the Project.

- 17B. The Proponent **must** ensure that the western dam at the Substrate Plant site (identified on the plan in Appendix 2 of this approval) does not receive process water.

*Notes: The dam may receive water from direct rainfall, area runoff and groundwater and during times of emergency.*

- 17C. Notwithstanding Condition 17B of Schedule 3, in the event of an emergency such as a high rainfall event or plant breakdown, the Proponent may use the western dam. Notification of any emergency use of the dam **must** be provided to the Secretary in writing within 7 days of the emergency.

#### Updated Water Management Plan – MOD 3

- 17D. Prior to the commencement of construction of the stormwater management system approved under MOD 3, the Proponent must prepare an updated Water Management Plan (WMP) for the Substrate Plant site to the satisfaction of the Secretary. The updated WMP must:
- be prepared in accordance with the requirements of Schedule 3, conditions 17 to 17C of this approval;
  - be prepared in accordance with the updated Stormwater Catchment Plan for the Substrate Plant site (see Appendix 2A of this approval); and
  - detail the measures that are to be implemented to manage stormwater impacts associated with the MOD 3 works.
- 17E. The Proponent must:
- not commence operation of the MOD 3 stormwater management system until the updated WMP is approved by the Secretary; and
  - implement the most recent version of the updated WMP approved by the Secretary.

#### Flood Compatible Materials – MOD 3

- 17F. The Proponent must ensure any structures approved under MOD 3 that are built below the 100-year ARI flood level, including the noise barrier and the northern perimeter wall, are constructed from flood compatible building components.

*Note: The 100-year ARI flood level at the Substrate Plant site is RL 17.3 metres AHD.*

### NOISE

#### Construction Noise Criteria

18. The Proponent **must** ensure that the construction noise generated at the Substrate Plant site does not exceed the criteria in Table 1.

Table 1: Construction Noise impact assessment criteria dB(A)

Receiver/Location	Day
	L <sub>Aeq</sub> (15 minute)
R1 – 46 Mulgrave Road, Mulgrave	52
R2 – Mulgrave Industrial area	65
R3 – 2 Railway Road, Mulgrave	52
R4 – 126 Mulgrave Road, Mulgrave	52
R5 – Chisholm Place, South Windsor	51

Notes:

- Noise generated by the Project is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.

#### Operational Noise Criteria

19. The Proponent **must** ensure that the operational noise generated by the Substrate Plant site does not exceed the criteria in Table 2.

Table 2: Operational Noise impact assessment criteria dB(A)

Receiver/Location	Day /Evening L <sub>Aeq</sub> (15 minute)	Night L <sub>Aeq</sub> (15 minute)
R1 – 46 Mulgrave Road, Mulgrave	43	43
R2 – Mulgrave Industrial area	42	42
R3 – 2 Railway Road, Mulgrave	42	37
R4 – 126 Mulgrave Road	44	41
R5 – Chisholm Place, South Windsor	44	42

Noise generated by the Project is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.

**Notes:**

- Noise generated by the Project is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.

## Hours of Work

20. The Proponent **must** comply with the operating hours in Table 3 at the Substrate Plant site, unless otherwise agreed to in writing by the **Secretary**.

Table 3: Operating hours

Activity	Day	Time
Construction	Monday – Friday	7:00am to 6:00pm
	Saturday	8:00am to 1:00pm
	Sunday and Public Holidays	Nil
Operation	All days	Any time

## Additional Noise Mitigation Measures

- ~~21. The Proponent shall install the southern boundary noise wall adjacent to the bale storage shed on the Substrate Plant site prior to commencement of other stage 1 construction works.~~

- ~~21. The Proponent must construct the 7 m high noise wall adjacent to the southern side of the bale storage shed or implement 'other noise mitigation measures' with the same or greater effect, prior to commencement of stage 2B construction works.~~

~~Should 'other noise mitigation measures' be implemented, the Proponent must demonstrate, to the satisfaction of the Secretary, that the chosen measures will be as effective as modelled for the noise wall. Construction of Stage 2B cannot commence unless the Proponent has received the Secretary's approval for the 'other noise mitigation measures'.~~

21. The Proponent must ensure the noise barrier is constructed:
- prior to the importation of fill for the expansion of the open bale storage area; or
  - as otherwise agreed to in writing by the Secretary.
- 21A. The Proponent must continue to implement the 'other noise mitigation measures' approved by the Department in its letter dated 18 July 2016 until the noise barrier referred to in Schedule 3, Condition 21 of this approval is constructed.

## Noise Management Plan

22. The Proponent **must** prepare and implement a Noise Management Plan for the Substrate Plant site in consultation with EPA to the satisfaction of the **Secretary**. The Plan must be submitted to the **Secretary** for approval prior to commencement of operations, and include a noise monitoring protocol for evaluating compliance with the noise impact assessment criteria in this approval.
- 22A. The Proponent **must** update the Noise Management Plan for the Substrate Plant site, to the satisfaction of the Secretary. This plan is to update the plan approved under Condition 22 of Schedule 3 and **must** include:
- the works associated with MOD 1; and
  - a revised monitoring protocol for evaluating compliance with the noise impact assessment criteria in this approval once all construction works associated with MOD 1 are complete.



- 22B. Operation of works associated with MOD 1 must not commence until the Proponent has received the Secretary's written approval of the plan. The approved Plan (as revised and approved by the Secretary from time to time), must be implemented for the life of the Project as soon as written endorsement by the Secretary is received.

## BIODIVERSITY

### Riparian Management Area

23. The Proponent must establish a fenced, 35 metre wide riparian corridor along the length of South Creek within 12 months of commencement of operation of Stage 1. The Proponent must consult with the Hawkesbury-Nepean Catchment Management Authority on methods and species selection to ensure that best practise techniques are used at the site, to the satisfaction of the Secretary.

## VISUAL AMENITY

### Lighting

24. The Proponent must ensure that all external lighting associated with the Substrate Plant site:
- (a) does not create a nuisance to surrounding properties or roadways; and
  - (b) complies with AS 4282(INT) 1995 – *Control of Obtrusive Effects of Outdoor Lighting*.
- 24A. The Proponent must prepare a Landscape Management Plan for the Substrate Plant site. The plan must:
- (a) be prepared in consultation with Council;
  - (b) identify screen planting to minimise visual impacts of the site, particularly the new biofilter; and
  - (c) be approved by the Secretary prior to the commencement of construction of the works associated with MOD 1.
- 24B. The landscaping around the site of the new biofilter required under MOD 1 must be installed within three months following the completion of the construction of the biofilter. All other landscaping must be installed prior to the commencement of operation of the works associated with MOD 1.

### Signage

25. The Proponent must not install any advertising signs on the Substrate Plant site without the written approval of the Secretary.

## TRANSPORT

26. The Proponent must ensure that:
- (a) car parking is constructed in accordance with the relevant requirements of the latest version of AS 2890.1; and
  - (b) vehicles associated with the Substrate Plant site do not park or queue on the public road network at any time.

## PROTECTION OF PUBLIC INFRASTRUCTURE

27. Before the commencement of the MOD 3 construction works, the Proponent must:
- (a) consult with the relevant owner and provider of services that are likely to be affected by the MOD 3 construction works to make suitable arrangements for access to, diversion, protection and support of the affected infrastructure;
  - (b) prepare a dilapidation report identifying the condition of all public infrastructure in the vicinity of the site (including roads, gutters and footpaths); and
  - (c) submit a copy of the dilapidation report to the Secretary and Council.
28. Unless the Proponent and the applicable authority agree otherwise, the Proponent must:
- (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by carrying out the MOD 3 construction works; and
  - (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the MOD 3 construction works.

## WORKS AS EXECUTED PLANS – MOD 3

29. Before the issue of the final Occupation Certificate for the works associated with MOD 3, works-as-executed drawings signed by a registered surveyor demonstrating that the stormwater drainage and finished ground levels have been constructed as approved, must be submitted to the PCA and Sydney Trains.

## RAIL CORRIDOR AND ASSOCIATED EASEMENTS

30. The Proponent must ensure:
- (a) no construction or maintenance works associated with MOD 3 occur within the Rail Corridor or its associated easements;
  - (b) stormwater drainage associated with MOD 3 is not discharged into the Rail Corridor; and
  - (c) fill is not spread or stockpiled within the Rail Corridor or its associated easements,
- except with the prior approval of Sydney Trains.
31. The Proponent must ensure that straw bales stacked immediately adjoining the southern section of the noise barrier (adjacent to the Rail Corridor) do not exceed the height of the noise barrier.
-

## SCHEDULE 4 SPECIFIC ENVIRONMENTAL CONDITIONS – MUSHROOM FARM SITE

### CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

1. The Proponent **must** prepare and implement a Construction Environmental Management Plan for the Mushroom Plant site to the satisfaction of the **Secretary**. This Plan must:
  - (a) be prepared in consultation with **NOW DPIE Water** and **EPA**;
  - (b) be submitted for approval prior to commencement of construction, and include:
    - a noise and vibration management plan, including a noise monitoring program that can be used to demonstrate compliance with the construction noise criteria in Condition 15 below;
    - an air quality management plan;
    - a soil and water management plan, including details of the erosion and sediment control measures to be used on site;
    - a flora and fauna management plan;
    - a heritage management plan, including the programs/procedures to be implemented in the event that previously unidentified relics are discovered (Condition 21)
    - a waste management plan; and
    - a construction traffic management plan which addresses haulage routes, traffic safety and the number of truck movements required to import the identified fill for the site.

### AIR QUALITY

#### Offensive Odours

2. The Proponent **must** not cause or permit the emission of offensive odours from the Mushroom Farm site, as defined under Section 129 of the POEO Act.

#### Dust

3. The Proponent **must** implement all reasonable and feasible measures to minimise dust generated at the Mushroom Farm site.
4. During the construction and operation of the project, the Proponent **must** ensure that:
  - (a) all trucks entering or leaving the Mushroom Farm site with loads have their loads covered;
  - (b) the trucks associated with the Project do not track dirt onto the public road network;
  - (c) all areas are maintained in a condition to minimise the emission of wind-blown or traffic-generated dust,to the satisfaction of the **Secretary**.

### GREENHOUSE GAS

#### Energy Efficiency Plan

5. The Proponent **must** prepare and implement an Energy Efficiency Plan on the Mushroom Farm site to the satisfaction of the **Secretary**. This plan must:
  - (a) be submitted to the **Secretary** for approval prior to the commencement of operations on the site;
  - (b) describe the measures that would be implemented to minimise energy use on the site;
  - (c) explore the possibility of using renewable energy use to generate power; and
  - (d) include a program to monitor the effectiveness of these measures, and a protocol to periodically review the plan.

### SITE OPERATION

#### Hazard and Risk

6. The Proponent **must**:
  - (a) provide and manage a **24 25** metre wide APZ between the buildings on the Mushroom Farm site and any bushfire hazard;
  - (b) implement suitable measures to minimise the risk of fire on the Mushroom Farm site;
  - (c) extinguish any fires on the Mushroom Farm site promptly;
  - (d) maintain adequate fire-fighting capacity on the Mushroom Farm site; and
  - ~~(e) construct the proposed office building in compliance with section 7 (BAL 29) Australian Standard AS 3959 2009 Construction of buildings in bush fire prone areas and section A3.7 Addendum Appendix 3 of Planning for Bushfire Protection 2006.~~

7. The Proponent **must** ensure that all dangerous goods and hazardous substances are stored and handled on the Mushroom Farm site in accordance with the Dangerous Goods Code and AS 1940-2004: *The storage and handling of flammable and combustible liquids*.

#### Waste

8. The Proponent must not cause, permit or allow any waste generated outside the Mushroom Farm site to be received at the site for storage, treatment, processing, reprocessing or disposal of at the site, except with the approval of the **Secretary** and as expressly permitted by a licence under the *Protection of the Environment Operations Act 1997*.

#### SOIL AND WATER

##### Pollution of waters

9. Except as may be expressly provided in an EPL for the Mushroom Farm site, the Proponent must comply with Section 120 of the POEO Act.

##### Bunding

10. The Proponent **must** store all chemicals, fuels and oils used on the Mushroom Farm site in appropriately banded areas, with impervious flooring and sufficient capacity to contain 110% of the largest container stored within the bund, unless double-skinned tanks are used. Any bunds **must** be designed and installed in accordance with the requirements of all relevant Australian Standards, and/or DECCW's *Storage and handling liquids: Environmental Protection – Participant's Manual*.

##### Minimising Impacts of Chemicals

11. The Proponent **must** ensure that the use of chemicals (including pesticides and herbicides) on the Mushroom Farm site carried out in accordance with:
- (a) *Agricultural and Veterinary Chemicals Act 1994*; and
  - (b) *Agricultural and Veterinary Chemicals (NSW) Regulation 2000*

##### Imported Soil

12. The Proponent **must** ensure that only VENM and/or ENM or material approved by the **EPA** is used as fill.

##### Water Management Plans

- 13(i) The Proponent **must** prepare and implement an operational Water Management Plan for the Project on the Mushroom Farm site in consultation with **EPA**, Penrith City Council and **NOW DPIE Water** to the satisfaction of the **Secretary**. The plan must:
- (a) be submitted to the **Secretary** for approval prior to the commencement of operations;
  - (b) include:
    - a detailed Stormwater Operation and Management Plan that includes the measures outlined in the Stormwater Management report prepared by Barker Ryan and Stewart reference 20070166 Revision G dated 11 April 2016 as supplemented by addendum Stormwater Management report prepared by Harris Environmental Consulting dated 15 March 2018; and
    - a Recycled Water Management Plan.
- ~~an effluent irrigation plan.~~
- 13(ii) Prior to the commencement of construction, the Proponent shall seek approval from Penrith Council under Section 68 of the Local Government Act to install and operate the Onsite Sewage Management System. The application shall include an Effluent Management Plan detailing monitoring and maintenance arrangements.

#### NOISE

##### Construction Noise Mitigation

- ~~14. The Proponent must install the northern environmental bund prior to commencement of any other construction works at the Mushroom Farm site.~~
- ~~Installation of the northern environmental bund must be completed within a period of not more than 3 months.~~



## Construction Noise Criteria

15. The Proponent **must** ensure that the construction noise generated at the Mushroom Farm site does not exceed the criteria in Table 4.

Table 4: Construction noise criteria dB(A)

Receiver/Location	Day L <sub>Aeq</sub> (15 minute)
Receiver 1 – 503 The Northern Road, Londonderry	49
Receiver 2 – 509 The Northern Road, Londonderry	54
Receiver 3 – 1 Thomas Road, Londonderry	54
Receiver 4– 6-16 Timothy Road, Londonderry	45

Notes:

- Noise generated by the Project is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.
- The construction noise criteria do not apply to any works associated with the installation of the northern environmental bund (Condition 14 above).

## Operational Noise Criteria

16. The Proponent **must** ensure that the operational noise generated by the Mushroom Farm site does not exceed the criteria in Table 5.

Table 5: Project Noise Trigger Levels dB(A)

Receiver/Location	Shoulder period* (5-7am) L <sub>Aeq</sub> (15 minute)	Day L <sub>Aeq</sub> (15 minute)	Evening L <sub>Aeq</sub> (15 minute)	Night L <sub>Aeq</sub> (15 minute)	Sleep disturbance L <sub>A1</sub> (1 minute)	
					Night	Shoulder period (5am – 7am)
R1 – 503 The Northern Road	44	44	44	38	52	54
R2 – 509 The Northern Road	47	48	45	38	52	57
R3 – 1 Thomas Road	47	48	45	38	52	57
R4 – 6-16 Timothy Road	40	40	40	38	52	52

Notes:

- Noise generated by the Project is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy for Industry.
- \* "Shoulder period" noise trigger level should not exceed Day or Evening noise trigger levels.

## Hours of Work

17. The Proponent **must** comply with the operating hours on the Mushroom Farm site in Table 6, unless otherwise agreed with the **Secretary**.

Table 6: Operating Hours

Activity	Day	Hours
Construction	Monday – Friday	7 am – 6 pm
	Saturday	8 am – 1 pm
	Sunday & Public Holidays	Nil
Operation	All days	Any time

## Noise Management Plan

18. The Proponent **must** prepare and implement a Noise Management Plan for the Mushroom Farm site in consultation with EPA and property owner of 1 Thomas Road, Penrith (identified as location "R3") to the satisfaction of the **Secretary**. The Plan must be submitted to and approved by the **Secretary** for approval prior to commencement of **operations construction**, and include a noise monitoring protocol for evaluating compliance with the noise impact assessment criteria in **Conditions 15 and 16** of this approval.



The Noise Management Plan must also include all mitigation measures for both the construction and operations identified in the acoustic reviews titled 'Acoustic Review Modified Operations Mushroom Farm Londonderry' dated 5 April 2016 prepared by Atkins Acoustics and Associates Pty Ltd and 'Acoustic Review (Amended Development Application) Modified Operations, Mushroom Farm, 521 The Northern Road, Londonderry' dated 5 February 2019 prepared by Acoustic Consulting Engineers Pty Ltd. Mitigation measures must be implemented at the commencement of construction or as identified in the reports.

The Noise Management Plan must also include measures that restrict operations along the southern side of the building during night-time hours to mitigate intermittent noise impacts associated with truck movements and air brake release.

## BIODIVERSITY

### Vegetation Management Area

19. The Proponent **must** establish a Vegetation Management Area at the Mushroom Farm site (as shown in Appendix 5).

### Vegetation Management Plan

- 20(i) The Proponent **must** prepare and implement a Plan for the Vegetation Management Area to the satisfaction of the **Secretary**. This plan must be prepared in consultation with **OEH EESG** by a suitably qualified and experienced expert/s whose appointment has been approved by the **Secretary**. The plan must:
- (a) be submitted to and approved by the **Secretary** for approval prior to the commencement of construction on the Mushroom Farm site;
  - (b) identify all vegetation that is present within the vegetation management area (as shown in Appendix 5);
  - (c) include the recommendations of the 'Addendum Flora and Fauna Assessment 521 The Northern Road Londonderry' dated 7 July 2015 and prepared by Fraser Ecological Consulting;
  - (d) include details of the mechanism that will be used to ensure that the vegetation within the area is protected in perpetuity;
  - (e) describe the management measures that will be implemented to maintain and enhance the vegetation within the area over time, including fencing of *Dillwynia tenuifolia* and *Persoonia nutans*. This should also include management measures aimed at ensuring that the implementation and management of the APZ protects the *Dillwynia tenuifolia* and *Persoonia nutans*;
  - (f) provide details of all trees scheduled for removal noting that trees to be felled with a Diameter at Breast Height (DBH) of 30cm or greater, once felled, are to be sawn into 2-6m lengths and relocated into the proposed conservation area identified in Appendix 5; and
  - (g) include a detailed weed condition map as a baseline from which site rehabilitation/management can be measured.

*Note : all vegetation rehabilitation work is to be supervised by an appropriately qualified and experienced person with minimum qualifications of TAFE Certificate III in Bush Regeneration or Conservation and Land Management - Natural Area Restoration and 4 years bush regeneration experience;*

### Fauna Inspection

- 20(ii) Prior to the commencement of works, including the removal of any trees associated with the approved development, an inspection for resident threatened fauna (including an inspection of hollows) must be undertaken by a qualified wildlife handler/expert and any fauna found relocated.

## HERITAGE

21. The Proponent **must** prepare and implement a Heritage Management Plan for the Project to the satisfaction of the **Secretary**. This Plan must:
- (a) be prepared in consultation with OEH by a suitably qualified and experienced expert;
  - (b) be submitted to the **Secretary** for approval prior to commencement of construction;
  - (c) include programs/procedures for:
    - managing the discovery of previously unidentified heritage relics including halting of works in the vicinity, notification of OEH and the Department;
    - managing the discovery of human remains including the halting of works in the vicinity, notification of the NSW Police, the Department, the OEH and Aboriginal stakeholders and not recommencing any works in the area unless authorised to do so by the Department and/or the NSW Police (whichever is relevant); and
    - heritage inductions for construction personnel (including procedures for keeping records of inductions).

## VISUAL AMENITY

22. Prior to commencement of construction works, the Proponent **must** prepare and implement a Landscape Management Plan for the Project to the satisfaction of the **Secretary**. This Plan must:
- (a) be prepared in consultation with Penrith City Council
  - (b) be submitted to and approved by the **Secretary** prior to commencement of construction works;
  - ~~(c) where practicable, provide for the early planting of advanced plants along the northern, and southern boundaries to minimise the visual impacts of the Project; and~~
  - (d) use predominantly endemic species,
  - ~~(e) where practicable, provide for the early planting of advanced plants along the northern, and southern boundaries to minimise the visual impacts of the Project; and~~
  - (f) provide for the maintenance of landscaping on site; and
  - (g) provide for the early planting of advanced plants along the northern, southern and eastern boundaries to screen and soften the expanse of the main structure.
- 22A. Prior to the commencement of construction works of the main building, the Proponent shall prepare a schedule of materials and finishes. To reduce glare and minimise visual intrusiveness, the visible light reflectivity from the materials and finishes must not exceed 20% reflectivity. The schedule of materials and finishes and evidence that these are consistent with the 20% reflectivity must be submitted to and endorsed by the **Secretary** prior to the issue of the relevant Construction Certificate.
23. Prior to the commencement of construction on the Mushroom Farm site the Proponent **must** offer and implement (if the offer is accepted) landscaping treatments to the residences in Table 7 below. These measures must be reasonable and feasible, and directed toward minimising the visibility of the operations from the residences on the land

Table 7 – residences at which landscape treatment will be offered

	Residences
Residence 1	493 The Northern Road, Londonderry
Residence 2	509 The Northern Road, Londonderry
Residence 3	1 Thomas Road, Londonderry

If within 3 months of receiving the offer, the Proponent and the owner can not agree on the landscaping treatment, or there is a dispute about the implementation of these measures, then either party may refer the matter to the **Secretary** for resolution.

24. Prior to installing any boundary fencing on Mushroom Farm site, the Proponent **must** submit detailed plans of this fencing to the **Secretary** for approval. These plans must be prepared in consultation with Penrith City Council. Following approval, the Proponent must ensure that the fencing is installed in accordance with the approved plans.

## Lighting

25. The Proponent **must** ensure that all external lighting associated with the Project on the Mushroom Farm site:
- (a) does not create a nuisance to surrounding properties or roadways; and
  - (b) complies with AS 4282(INT) 1995 – *Control of Obtrusive Effects of Outdoor Lighting*.

## Signage

26. The Proponent **must** not install any advertising signs on the Mushroom Farm site without the written approval of the **Secretary**.

## ACCESS ROAD WORKS

27. Prior to the commencement the operation of stage 1, the Proponent **must** design and construct the Mushroom Farm site access as a "Type CHR" Rural Intersection, in accordance with the **RMS's Road Design Guide** and relevant Austroads guidelines, to the satisfaction of the **RMS**.

In finalising the design of the site access, the Proponent **must**:

- (a) ensure that the swept path of the largest vehicle entering/exiting the site and manoeuvrability through the site is in accordance with the relevant Australian Standard and to Penrith City Council's satisfaction; and
- (b) sign a *Works Authorisation Deed* with the **RMS**.

## TRANSPORT

### Car Parking

28. The Proponent **must** engage a suitably qualified and experienced expert to prepare a car parking study to re-evaluate parking requirements for stages 2 to 5 of the Project on the Mushroom Farm site. The study **must**:
- (a) be submitted to the satisfaction of the **Secretary** prior to commencement of construction works for stage 2; and
  - (b) provide recommendations as to whether the car parking is sufficient.
29. The Proponent **must** ensure that:
- (a) the layout of the proposed parking areas (including driveways, grades, turn paths, sight distances requirements in relation to landscaping and/or fencing, aisle widths, aisle lengths, and parking bay dimensions) must comply with AS 2890.1-2004, AS2890.6-2009 for cars and AS2890.2 for heavy vehicles;
  - (b) vehicles associated with the Project do not park or queue on the public road network at any time; and
  - (c) all vehicles enter and leave the site in a forward direction; and

### Operational Traffic Management Plan

30. Prior to the commencement of operation, the Proponent must prepare an Operational Traffic Management Plan (OTMP) for the development to the satisfaction of the Secretary.

The Plan must be prepared by a suitably qualified and experienced person(s) as approved by the Secretary and must:

- (a) be prepared in consultation with Council and RMS;
- (b) detail the measures to be implemented to ensure road safety and network efficiency;
- (c) detail heavy vehicle routes, access and parking arrangements;
- (d) detail measures aimed at minimising conflict between heavy vehicle and light vehicles accessing the site;
- (e) include a Driver Code of Conduct;
- (f) include onsite traffic control measures; and
- (g) include measures to minimise traffic noise in particular from reversing, loading and unloading and noise from exhaust brakes.

### Bushfire Protection

31. At the commencement of building works and for the perpetuity of the development, a minimum 25 metre distance shall be maintained as an inner protection (IPA) as outlined in Section 4.1.3 and Appendix 5 of 'Planning for Bush Fire Protection 2006'; and the NSW Rural Fire Services document 'Standards for asset protection zones'.
32. All new construction shall comply with Sections 3 and 8 (BAL 40) of Australian Standard AS3959-2009 'Construction of buildings in bush fire prone areas' and section A3.7 Addendum Appendix 3 of 'Planning for Bush Fire Protection'.
33. The provision of water, electricity and gas is to comply with section 4.1.3 of 'Planning for Bush Fire Protection 2006'.
34. Property access roads must comply with section 4.2.7 of 'Planning for Bushfire Protection 2006'.
35. Emergency and evacuation arrangements must comply with section 4.2.7 of 'Planning for Bush Fire Protection 2006'.

### Integrated Bushfire and Vegetation Management

36. Prior to the commencement of construction works on the Mushroom Farm Site, the Proponent must demonstrate to the satisfaction of the Secretary that:
- (a) a minimum 25 metre wide APZ; and
  - (b) appropriate landscaping to screen and soften the appearance of the structure
- can both be provided.



## SCHEDULE 5 ENVIRONMENTAL MANAGEMENT and REPORTING

### ENVIRONMENTAL MANAGEMENT

#### Environmental Management Strategy

1. The Proponent **must** prepare and implement an Environmental Management Strategy for the Project to the satisfaction of the **Secretary**. The Strategy must:
  - a) be submitted to the **Secretary** for approval prior to the commencement of operation;
  - b) provide the strategic framework for environmental management of the Project;
  - c) identify the statutory approvals that apply to the Project;
  - d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the Project;
  - e) describe the procedures that would be implemented to:
    - keep the local community and relevant agencies informed about the operation and environmental performance of the Project;
    - receive, handle, respond to, and record complaints;
    - resolve any disputes that may arise during the course of the Project;
    - respond to any non-compliance; and
    - respond to emergencies;
  - f) include:
    - copies of the various strategies, plans and programs that are required under the conditions of this approval once they have been approved; and
    - a clear plan depicting all the monitoring currently being carried out within the Project area.

#### Management Plan Requirements

2. The Proponent **must** ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:
  - a) detailed baseline data;
  - b) a description of:
    - the relevant statutory requirements (including any relevant approval, licence or lease conditions);
    - any relevant limits or performance measures/criteria; and
    - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the Project or any management measures;
  - c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
  - d) a program to monitor and report on the:
    - impacts and environmental performance of the Project;
    - effectiveness of any management measures (see c above);
  - e) a contingency plan to manage any unpredicted impacts and their consequences;
  - f) a program to investigate and implement ways to improve the environmental performance of the Project over time;
  - g) a protocol for managing and reporting any:
    - incidents;
    - complaints;
    - non-compliances with statutory requirements; and
    - exceedances of the relevant limits and/or performance measures / criteria; and
  - h) a protocol for periodic review of the plan.

#### **Review**

- ~~3. One year after the commencement of operations, and every three years thereafter, the Proponent shall review the environmental performance of the Project to the satisfaction of the Secretary. This review must:~~
  - ~~a) describe the operations that were carried out in the past year;~~
  - ~~b) analyse the monitoring results and complaints records of the Project over the past year, which includes a comparison of these results against the~~
    - ~~• relevant statutory requirements, limits or performance measures/criteria;~~
    - ~~• monitoring results of previous years; and~~
    - ~~• relevant predictions in the EA;~~
  - ~~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 Project; and~~

~~e) describe what measure will be implemented over the next year to improve the environmental performance of the Project.~~

3. By 30 September 2020 ~~Within six months of commencement of operations~~, and annually thereafter, unless otherwise agreed by the Secretary, the Proponent must review the environmental performance of the Project to the satisfaction of the Secretary. This review must:
- (a) describe the operations that were carried out during the reporting period;
  - (b) analyse the monitoring results and complaints records of the Project during the reporting period, which includes a comparison of these results against the:
    - i. relevant statutory requirements, limits or performance measures/ criteria;
    - ii. monitoring results of previous years; and
    - iii. relevant predictions in the EA;
  - (c) identify any non-compliance during the reporting period, 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 Project; and
  - (e) describe what measure(s) will be implemented during the next reporting period to improve the environmental performance of the Project.

#### Independent Environmental Audit

- 3A. By 31 March 2021 ~~Within six months of the approval of MOD 2~~, and every two years thereafter, unless otherwise agreed by the Secretary, the Proponent must commission and pay the full cost of an Independent Environmental Audit of the Project. This audit must:
- (a) be conducted by suitably qualified, experienced and independent team of experts (including an odour expert), whose appointment has been endorsed by the Secretary;
  - (b) include consultation with the relevant agencies;
  - (c) include a full odour audit of the Project, taking into consideration the relevant technical guidelines and any odour complaints made since the previous audit;
  - (d) assess the environmental performance of the project and assess whether it is complying with the relevant requirements in this approval and any other licenses and approvals that apply to the project, (including any assessment, plan or program required under these approvals);
  - (e) review the adequacy of strategies, plans or programs required under these approvals; and, if appropriate;
  - (f) recommend measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under these approvals.

Within six weeks of the completing of this audit, or as otherwise agreed by the Secretary, the Proponent must submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.

#### Revision of Plans & Programs

4. ~~Within 3 months of the submission of an:~~
- a) ~~the submission of an incident report under condition 5 of schedule 5; and~~
  - b) ~~the submission of an annual ~~three yearly~~ review under condition 3 of schedule 5; and~~
  - c) ~~the submission of an independent environmental audit under condition 3A of Schedule 5; and~~
  - d) ~~the approval of any modification of the conditions of this approval,~~

~~the strategies, plans and programs required under this approval must be reviewed.~~

~~the Proponent must review, and if necessary revise the plans and programs required under this approval to the satisfaction of the Secretary.~~

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

- 4A. If necessary to improve the environmental performance of the project or cater for a modification, the strategies, plans and programs required under this approval must be revised, to the satisfaction of the Secretary. Where revisions are required, the revised document must be submitted to the Secretary for approval within six weeks of the review required by Condition 4 of Schedule 5.

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

## REPORTING

### Incident

5. The Proponent **must** notify the **Secretary** and any other relevant agencies of any incident associated with the Project as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent **must** provide the **Secretary** and any relevant agencies with a detailed report on the incident.

### Access to Information

6. The Proponent **must** prepare a Community Consultation Strategy for the Substrate Plant site to address existing and future operations at the Substrate Plant site, including construction of works associated with MOD 1. This Plan **must**:
    - (a) be submitted to the satisfaction of the Secretary within one month from the approval of MOD 1;
    - (b) include procedures for updating the community on the general operation of the site as well as the progress of any construction works; including
      - i. a newsletter for the local community which details the:
        - construction activities and the expected duration of works;
        - a general summary of the environmental management to be implemented; and
        - telephone number for taking complaints or enquiries in relation to the activities;
      - ii. the website required by Condition 7 of Schedule 5; and
      - iii. public meetings;
    - (c) describe the distribution area for the newsletter (at a minimum all residents within 2 km from the site boundary), prepared in consultation with Council; and
    - (d) include procedures for handling and monitoring all complaints received; and detail what management and/or contingency actions will be taken if complaints are received.
  7. The approved Strategy (as revised and approved by the Secretary from time to time), **must** be implemented for the life of the Project as soon as written endorsement by the Secretary is received.
  8. Within three months from the date of the approval of MOD 3 4, the Proponent **must** make the following information (unless commercially sensitive) freely available on a publicly accessible website, as it is progressively required under the approval:
    - (a) all current statutory approvals, including this approval and any modifications to it;
    - (b) plans and programs required under this approval;
    - (c) technical analysis/reports of monitoring results, which have been reported in accordance with the various plans and programs approved under the conditions of this approval;
    - (d) a complaints register, which is to be updated on a monthly basis;
    - (e) a copy of any review as required under Condition 3 of Schedule 5 (over the last five years);
    - (f) updates on the progress of the construction works associated with MOD 1, MOD 2 and MOD 3; and
    - (g) any other material as required by the Secretary.
-

**APPENDIX 1**  
**PROPONENT'S REVISED STATEMENT OF COMMITMENTS**  
7 August 2018

FOR INFORMATION ONLY



## APPENDIX 2 SUBSTRATE PLANT SITE LAYOUT and STAGES

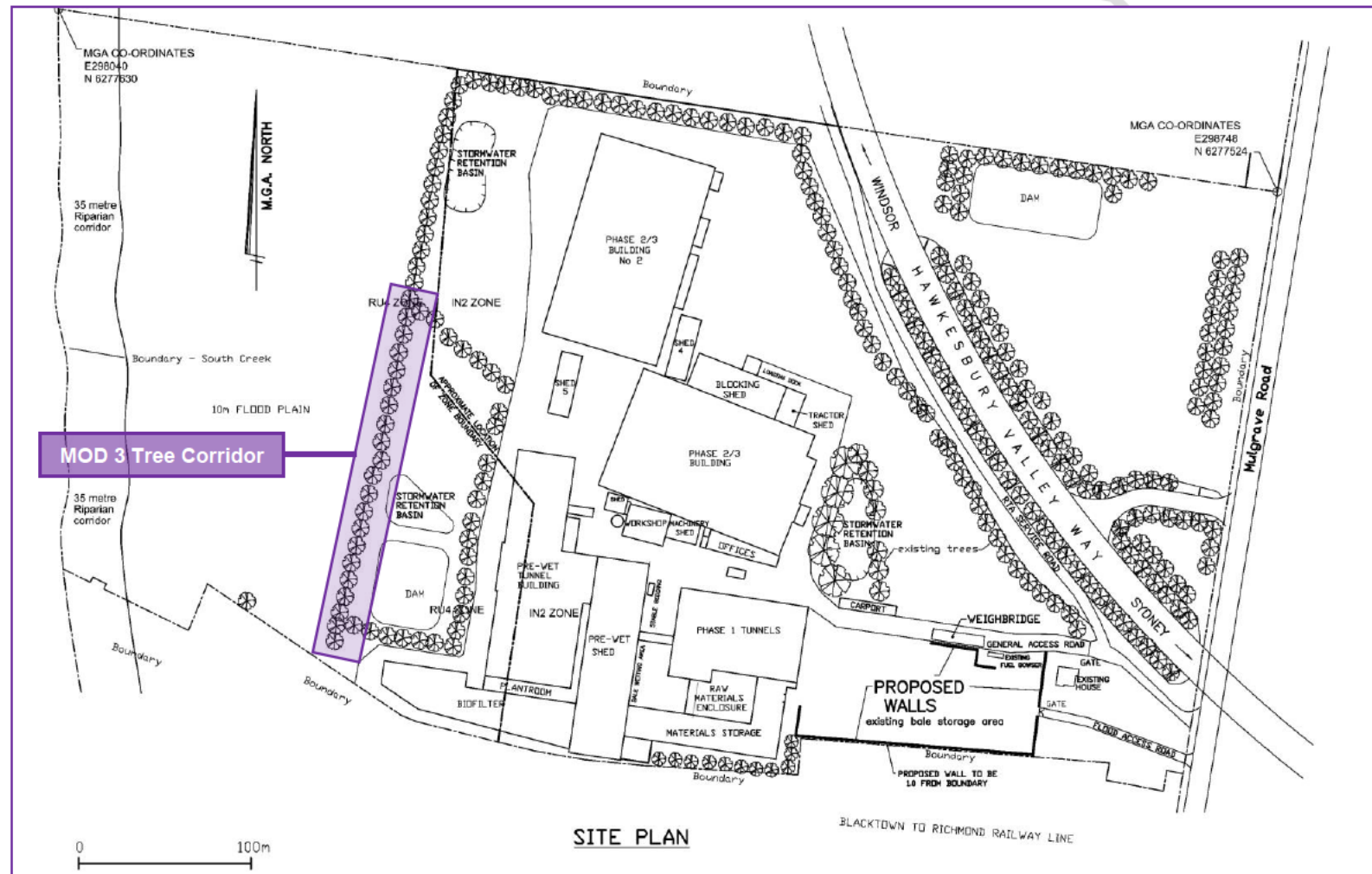
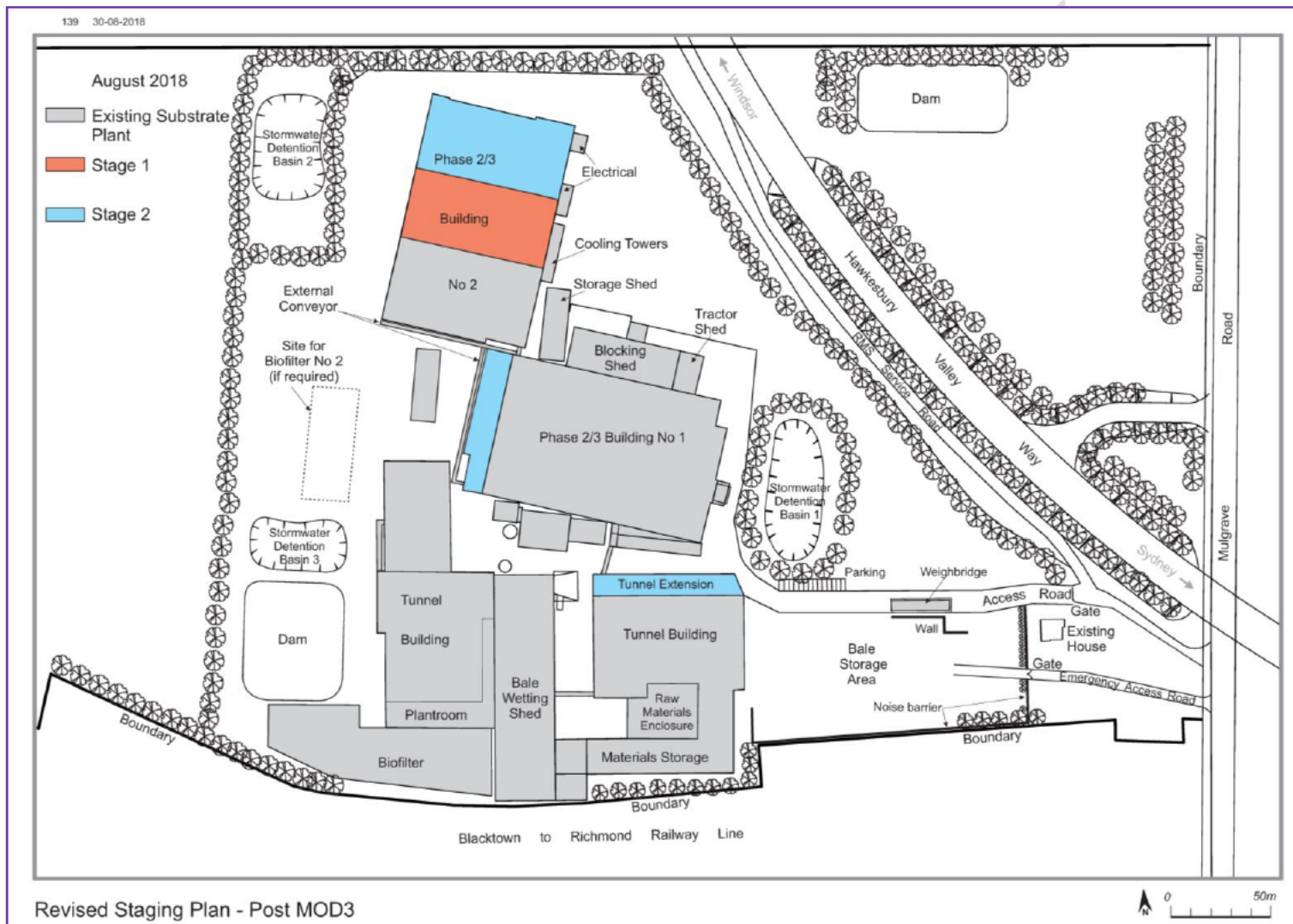


Figure 1: Substrate plant site layout following MOD 3





08\_0255 MOD 1 – Approved 14 March 2016

08\_0255 MOD 2 – Approved TBD

08\_0255 MOD 3 – TBD

## APPENDIX 2A Substrate Plant Site Stormwater Catchment Plan

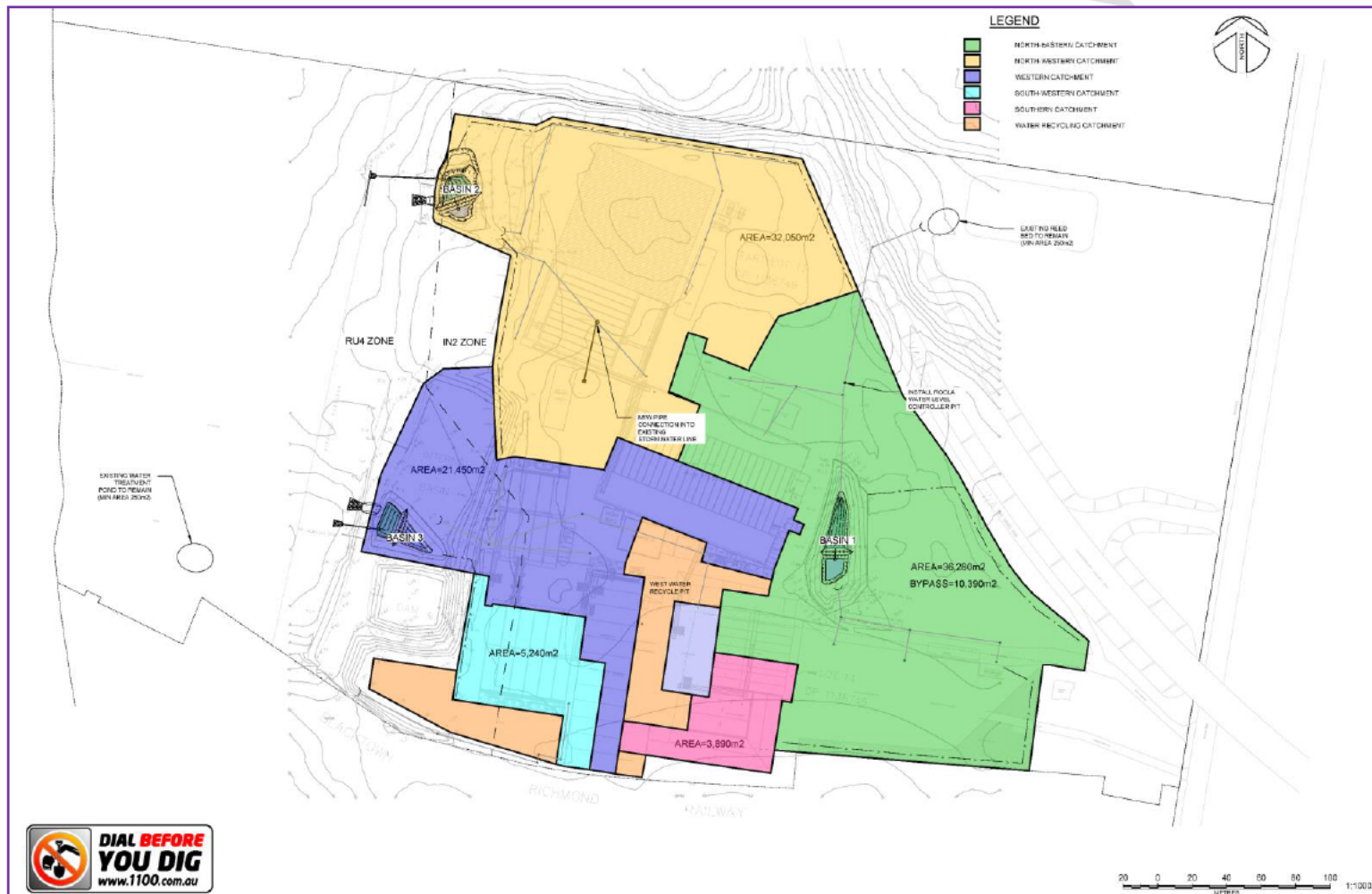


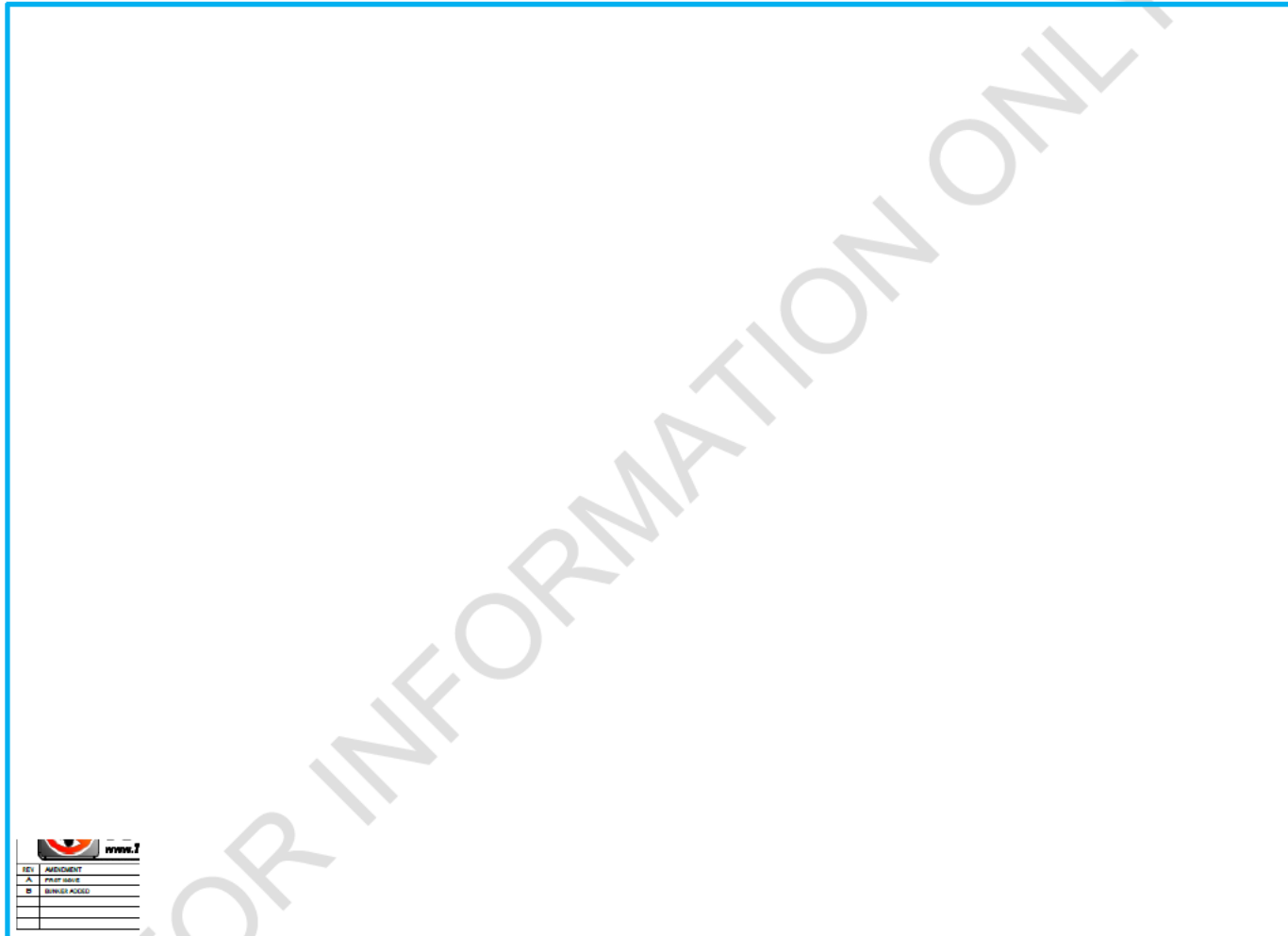
Figure 3: Substrate plant site stormwater catchment plan following MOD 3

08\_0255 MOD 1 – Approved 14 March 2016

08\_0255 MOD 2 – Approved TBD

08\_0255 MOD 3 – TBD

APPENDIX 3  
MUSHROOM FARM SITE LAYOUT **AS MODIFIED**



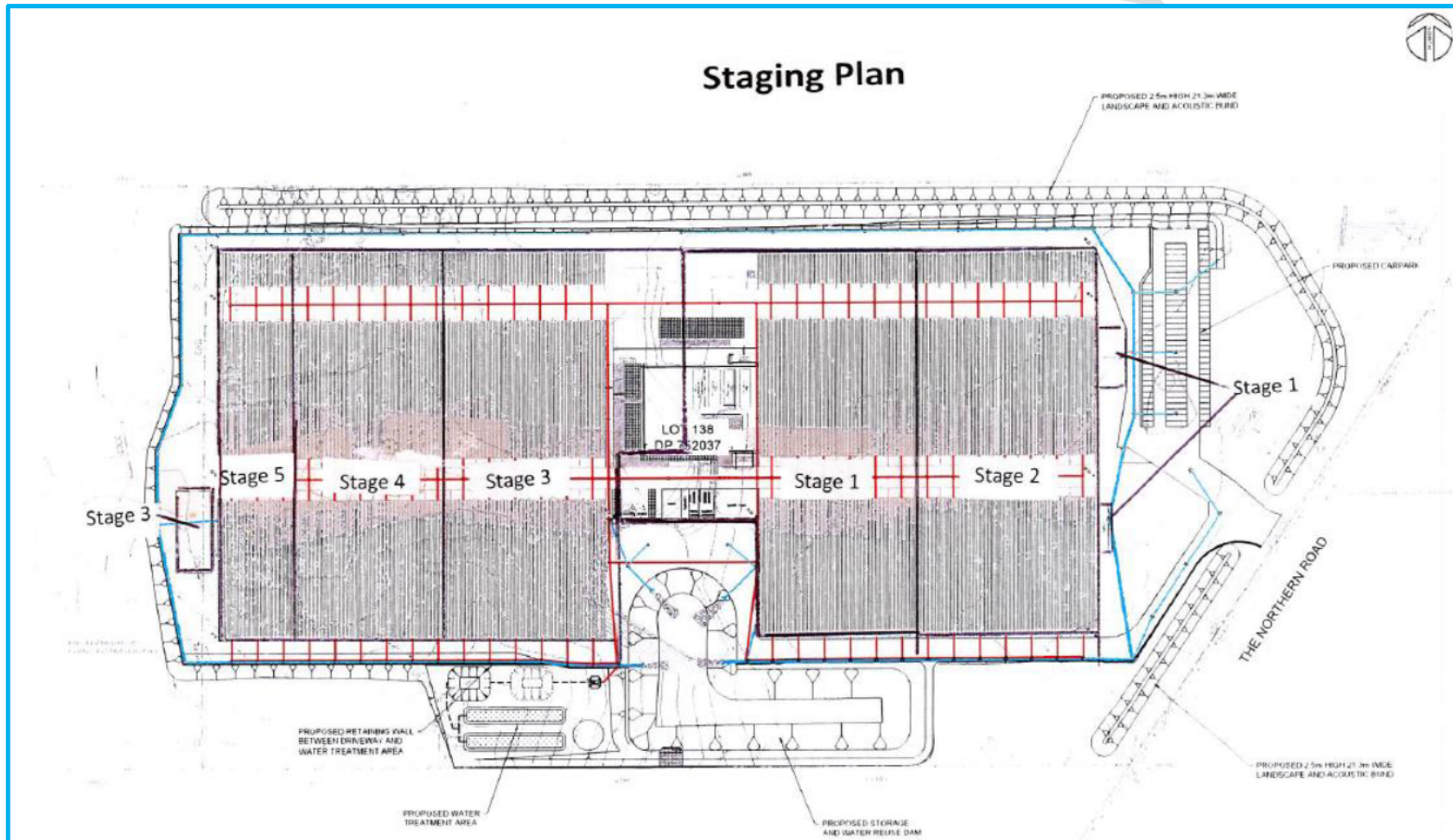
Indicative Mushroom Farm Site Layout

08\_0255 MOD 1 – Approved 14 March 2016

08\_0255 MOD 2 – Approved TBD

08\_0255 MOD 3 – TBD

APPENDIX 4  
STAGES MUSHROOM FARM SITE



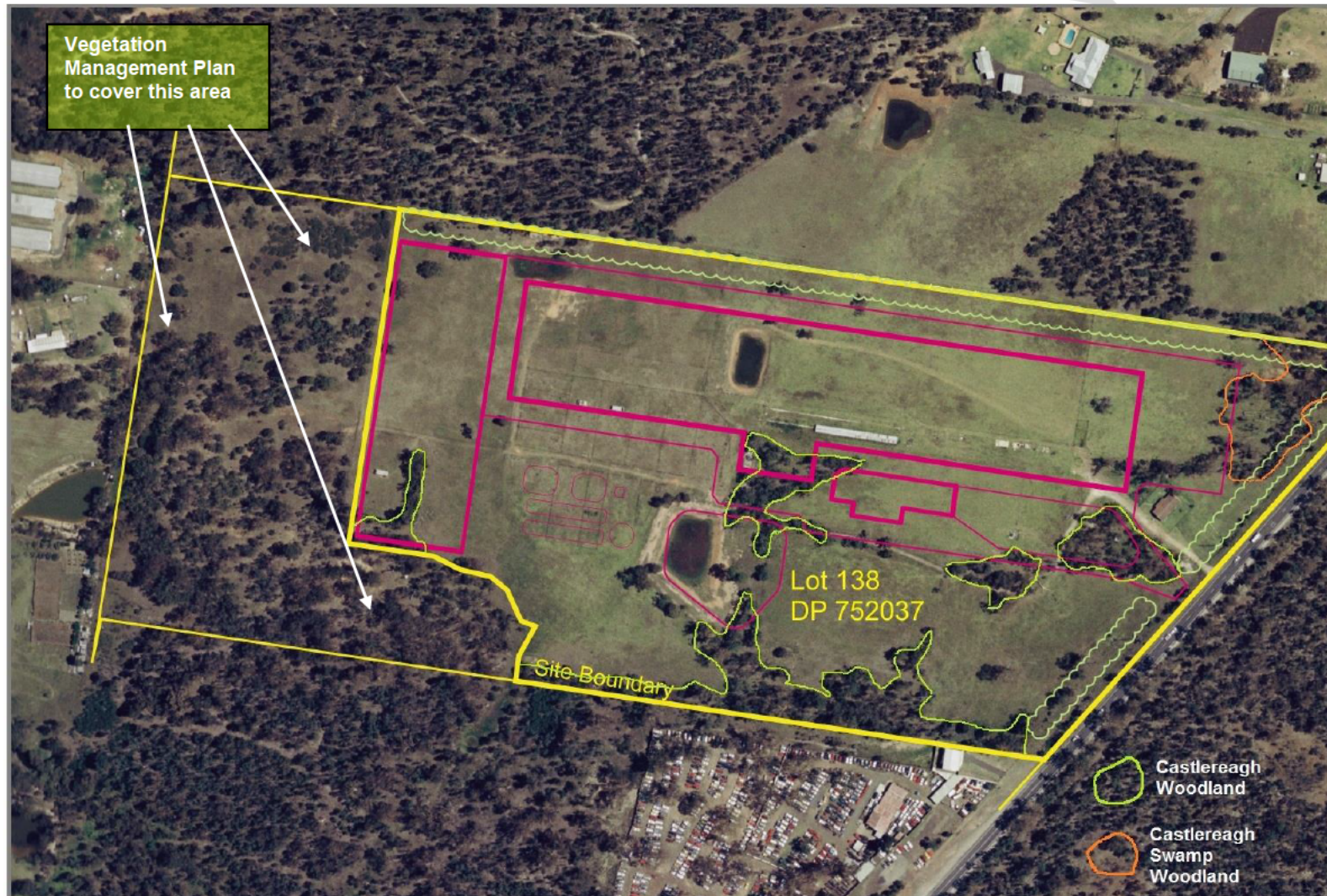
08\_0255 MOD 1 – Approved 14 March 2016

08\_0255 MOD 2 – Approved TBD

08\_0255 MOD 3 – TBD



APPENDIX 5  
VEGETATION MANAGEMENT AREA



08\_0255 MOD 1 – Approved 14 March 2016

08\_0255 MOD 2 – Approved TBD

08\_0255 MOD 3 – TBD



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## APPENDIX B

### ENVIRONMENTAL PROTECTION

LICENCE NO: 6229

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# Licence Variation

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Licence - 6229



ELF FARM SUPPLIES PTY LTD  
ABN 71 131 333 830  
PO BOX 615  
WINDSOR NSW 2756

Attention: Blake Edwards

Notice Number      1604164  
File Number        EF13/5158  
Date                 17-Dec-2020

## NOTICE OF VARIATION OF LICENCE NO. 6229

### BACKGROUND

- A. ELF FARM SUPPLIES PTY LTD ("the licensee") is the holder of Environment Protection Licence No. 6229 ("the licence") issued under the *Protection of the Environment Operations Act 1997* ("the Act"). The licence authorises the carrying out of activities at 108 MULGRAVE ROAD, MULGRAVE, NSW, 2756 ("the premises").
- B. On 16 December 2020 the Environment Protection Authority ("EPA") wrote to the licensee seeking comment regarding a proposed variation of condition R4.1 of the licence. Refer to DOC20/1041380.
- C. On 17 December 2020 the licensee wrote to the EPA accepting the proposed variation to condition R4.1. Refer to DOC20/1041380.
- D. On 17 December 2020 the licensee wrote to the EPA requesting the licence be further varied to amend condition O4.2 and to remove condition O4.7. Refer to DOC20/1041380.
- E. The EPA has given due consideration to the licensees proposal and now varied the licence accordingly.

### VARIATION OF LICENCE NO. 6229

- 1. By this notice the EPA varies licence No. 6229. The attached licence document contains all variations that are made to the licence by this notice.
- 2. The following variations have been made to the licence:
  - Condition R4.1 has been varied to require "*The licensee must retain records detailing irrigation of waste water from the dam at the premises for four years. These records shall be made available to EPA officers upon request*";

# Licence Variation

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- Condition O4.2 has been varied to require *"The licensee must ensure that the area in which the pre-wet process is conducted is fully enclosed within a building which is under negative pressure and ventilated through the Bio-filter."*; and
- Condition O4.7 has been removed.

DAMIEN ROSE.

.....  
**Damien Rose**  
**Acting Unit Head**  
**Metropolitan South Branch**  
(by Delegation)

## INFORMATION ABOUT THIS NOTICE

- This notice is issued under section 58(5) of the Act.
- Details provided in this notice, along with an updated version of the licence, will be available on the EPA's Public Register (<http://www.epa.nsw.gov.au/prpoeo/index.htm>) in accordance with section 308 of the Act.

## Appeals against this decision

- You can appeal to the Land and Environment Court against this decision. The deadline for lodging the appeal is 21 days after you were given notice of this decision.

## When this notice begins to operate

- The variations to the licence specified in this notice begin to operate immediately from the date of this notice, unless another date is specified in this notice.
- If an appeal is made against this decision to vary the licence and the Land and Environment Court directs that the decision is stayed the decision does not operate until the stay ceases to have effect or the Land and Environment Court confirms the decision or the appeal is withdrawn (whichever occurs first).



This Summary serves merely to highlight changes made to areas of this licence. Changes made to tables within the licence are indicated using underline (for additions) and Strikethrough (for deletions).

While changes to conditions are indicated under subheadings such as 'New condition', 'Old condition', 'Replaced by', and 'Removed condition'.

The attached licence document contains all the changes made to this licence by the attached variation notice.

## 4 Operating Conditions

### Other operating conditions

#### ***Old condition:***

The licensee must ensure that the area in which the pre-wet process is conducted is fully enclosed within a building which is under negative pressure and ventilated through the bio-scrubber.

#### ***Replaced by:***

The licensee must ensure that the area in which the pre-wet process is conducted is fully enclosed within a building which is under negative pressure and ventilated through the Biofilter.

#### ***Removed condition:***

All movement of material between the Pre-wet building and the Phase 1 building must be through the sealed corridor that connects these two buildings. That corridor must be effectively sealed during all processing activities.

## 6 Reporting Conditions

### Other reporting conditions

#### ***Old condition:***

The licensee must notify the EPA in writing at least 24 hours prior to irrigating waste water from the dam on the premises.

#### ***Replaced by:***

The licensee must retain records detailing irrigation of waste water from the dam at the premises for four years. These records shall be made available to EPA officers upon request.



# Environment Protection Licence

Licence - 6229

Licence Details	
Number:	6229
Anniversary Date:	20-May

Licensee
ELF FARM SUPPLIES PTY LTD
PO BOX 615
WINDSOR NSW 2756

Premises
ELF FARM SUPPLIES PTY LTD
108 MULGRAVE ROAD
MULGRAVE NSW 2756

Scheduled Activity
Composting
Waste storage

Fee Based Activity	Scale
Composting	> 5000-50000 T annual capacity to receive organics
Waste storage - other types of waste	Any other types of waste stored

Region
Metropolitan South Branch
4 Parramatta Square, 12 Darcy Street
PARRAMATTA NSW 2150
Phone: (02) 9995 5000
Fax: (02) 9995 6900
Locked Bag 5022
PARRAMATTA NSW 2124



# Environment Protection Licence

Licence - 6229

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# Environment Protection Licence

Licence - 6229

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# Environment Protection Licence

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Licence - 6229

## Information about this licence

### Dictionary

A definition of terms used in the licence can be found in the dictionary at the end of this licence.

### Responsibilities of licensee

Separate to the requirements of this licence, general obligations of licensees are set out in the Protection of the Environment Operations Act 1997 ("the Act") and the Regulations made under the Act. These include obligations to:

- ensure persons associated with you comply with this licence, as set out in section 64 of the Act;
- control the pollution of waters and the pollution of air (see for example sections 120 - 132 of the Act);
- report incidents causing or threatening material environmental harm to the environment, as set out in Part 5.7 of the Act.

### Variation of licence conditions

The licence holder can apply to vary the conditions of this licence. An application form for this purpose is available from the EPA.

The EPA may also vary the conditions of the licence at any time by written notice without an application being made.

Where a licence has been granted in relation to development which was assessed under the Environmental Planning and Assessment Act 1979 in accordance with the procedures applying to integrated development, the EPA may not impose conditions which are inconsistent with the development consent conditions until the licence is first reviewed under Part 3.6 of the Act.

### Duration of licence

This licence will remain in force until the licence is surrendered by the licence holder or until it is suspended or revoked by the EPA or the Minister. A licence may only be surrendered with the written approval of the EPA.

### Licence review

The Act requires that the EPA review your licence at least every 5 years after the issue of the licence, as set out in Part 3.6 and Schedule 5 of the Act. You will receive advance notice of the licence review.

### Fees and annual return to be sent to the EPA

For each licence fee period you must pay:

- an administrative fee; and
- a load-based fee (if applicable).



# Environment Protection Licence

Licence - 6229

The EPA publication “A Guide to Licensing” contains information about how to calculate your licence fees. The licence requires that an Annual Return, comprising a Statement of Compliance and a summary of any monitoring required by the licence (including the recording of complaints), be submitted to the EPA. The Annual Return must be submitted within 60 days after the end of each reporting period. See condition R1 regarding the Annual Return reporting requirements.

Usually the licence fee period is the same as the reporting period.

### Transfer of licence

The licence holder can apply to transfer the licence to another person. An application form for this purpose is available from the EPA.

### Public register and access to monitoring data

Part 9.5 of the Act requires the EPA to keep a public register of details and decisions of the EPA in relation to, for example:

- licence applications;
- licence conditions and variations;
- statements of compliance;
- load based licensing information; and
- load reduction agreements.

Under s320 of the Act application can be made to the EPA for access to monitoring data which has been submitted to the EPA by licensees.

### This licence is issued to:

ELF FARM SUPPLIES PTY LTD
PO BOX 615
WINDSOR NSW 2756

subject to the conditions which follow.





# Environment Protection Licence

Licence - 6229

## 1 Administrative Conditions

### A1 What the licence authorises and regulates

A1.1 This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.

Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.

Scheduled Activity	Fee Based Activity	Scale
Composting	Composting	> 5000 - 50000 T annual capacity to receive organics
Waste storage	Waste storage - other types of waste	Any other types of waste stored

### A2 Premises or plant to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
ELF FARM SUPPLIES PTY LTD
108 MULGRAVE ROAD
MULGRAVE
NSW 2756
LOT 13 DP 1138749, LOT 14 DP 1138749

### A3 Information supplied to the EPA

A3.1 Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.

In this condition the reference to "the licence application" includes a reference to:

- a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and
- b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.



# Environment Protection Licence

Licence - 6229

## 2 Discharges to Air and Water and Applications to Land

### P1 Location of monitoring/discharge points and areas

P1.1 The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.

## 3 Limit Conditions

### L1 Pollution of waters

L1.1 Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.

### L2 Waste

L2.1 The licensee must not cause, permit or allow any waste to be received at the premises, except the wastes expressly referred to in the column titled “Waste” and meeting the definition, if any, in the column titled “Description” in the table below.

Any waste received at the premises must only be used for the activities referred to in relation to that waste in the column titled “Activity” in the table below.

Any waste received at the premises is subject to those limits or conditions, if any, referred to in relation to that waste contained in the column titled “Other Limits” in the table below.

This condition does not limit any other conditions in this licence.

Code	Waste	Description	Activity	Other Limits
NA	Chicken manure			NA
NA	Feather meal			NA
NA	Cotton seed meal			NA
NA	Natural organic fibrous materials			NA
NA	Horse stable bedding			NA
NA	General or Specific exempted waste			NA
NA	Waste			NA

L2.2 The licensee must ensure that the amount of excess compost that is stored at the premises does not exceed 150 tonnes at any one time.

### L3 Noise limits

L3.1 Noise generated at the premises must not exceed the L<sub>Aeq</sub> (15 minutes) noise limits presented in the table below:

# Environment Protection Licence

Licence - 6229

Location	Day	Evening	Night
Most effected residence	44	44	39

- L3.2 Noise from the premises is to be measured at the most affected point on or within the residential boundary or at the most affected point within 30m of the dwelling (rural situations) where the dwelling is more than 30m from boundary to determine compliance with the LAeq(15 minute) noise limits in condition L4.1.

Where it can be demonstrated that direct measurement of noise from the premises is impractical, the EPA may accept alternative means of determining compliance. See Chapter 11 of the NSW Industrial Noise Policy.

The modification factors presented in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise level where applicable.

- L3.3 The noise emission limits identified in condition L4.1 apply under meteorological conditions of:
- wind speeds up to 3 m/s at 10 metres above ground level; and/or
  - temperature inversion conditions of up to 3 °C/100m.

## 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.

## 4 Operating Conditions

### O1 Activities must be carried out in a competent manner

- O1.1 Licensed activities must be carried out in a competent manner.
- This includes:
- the processing, handling, movement and storage of materials and substances used to carry out the activity; and
  - 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:
- must be maintained in a proper and efficient condition; and
  - must be operated in a proper and efficient manner.

# Environment Protection Licence

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## **O3 Dust**

- O3.1 The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.

## **O4 Other operating conditions**

- O4.1 There must be no incineration or open burning of any material(s) on the premises, except as specifically authorised by the EPA.
- O4.2 The licensee must ensure that the area in which the pre-wet process is conducted is fully enclosed within a building which is under negative pressure and ventilated through the Biofilter.
- O4.3 Clean up any spillage in front of the raw material ingredients storage building; including poultry manure, gypsum, meals, corn cobs, cotton seed, straw or elsewhere on a daily basis.
- O4.4 Remove solid material from the leachate collection pit screen daily when water is flowing to the pit (wet weather or bale wetting).
- O4.5 De-Sludge the leachate collection pit (if sludge is present) at least fortnightly and keep a record.
- O4.6 Keep doors to process buildings closed immediately before and after the movement of plant or people through the door.
- O4.7 All process buildings and conveyor systems must be constructed and maintained so that these do not allow fugitive odour emissions.

Fugitive odour emissions points include holes, leaks, gaps, corrosion points and other similar failures in containment structures without inclusion of the mechanical extraction vents.

## **5 Monitoring and Recording Conditions**

### **M1 Monitoring records**

- M1.1 The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.
- M1.2 All records required to be kept by this licence must be:
- a) in a legible form, or in a form that can readily be reduced to a legible form;
  - b) kept for at least 4 years after the monitoring or event to which they relate took place; and
  - c) produced in a legible form to any authorised officer of the EPA who asks to see them.
- M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of this licence:

# Environment Protection Licence

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- a) the date(s) on which the sample was taken;
- b) the time(s) at which the sample was collected;
- c) the point at which the sample was taken; and
- d) the name of the person who collected the sample.

## M2 Recording of pollution complaints

- M2.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.
- M2.2 The record must include details of the following:
- a) the date and time of the complaint;
  - b) the method by which the complaint was made;
  - c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
  - d) the nature of the complaint;
  - e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
  - f) if no action was taken by the licensee, the reasons why no action was taken.
- M2.3 The record of a complaint must be kept for at least 4 years after the complaint was made.
- M2.4 The record must be produced to any authorised officer of the EPA who asks to see them.

## M3 Telephone complaints line

- M3.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.
- M3.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.
- M3.3 The preceding two conditions do not apply until 3 months after: the date of the issue of this licence.

## 6 Reporting Conditions

### R1 Annual return documents

- R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:
- 1. a Statement of Compliance,
  - 2. a Monitoring and Complaints Summary,
  - 3. a Statement of Compliance - Licence Conditions,
  - 4. a Statement of Compliance - Load based Fee,
  - 5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan,

# Environment Protection Licence

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- 6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and
- 7. a Statement of Compliance - Environmental Management Systems and Practices.

At the end of each reporting period, the EPA will provide to the licensee notification that the Annual Return is due.

- R1.2 An Annual Return must be prepared in respect of each reporting period, except as provided below.
- R1.3 Where this licence is transferred from the licensee to a new licensee:
  - a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
  - b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.
- R1.4 Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:
  - a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
  - b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.
- R1.5 The Annual Return for the reporting period must be supplied to the EPA via eConnect *EPA* or by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').
- R1.6 The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.
- R1.7 Within the Annual Return, the Statements of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:
  - a) the licence holder; or
  - b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.

Note: An application to transfer a licence must be made in the approved form for this purpose.

## R2 Notification of environmental harm

- R2.1 Notifications must be made by telephoning the Environment Line service on 131 555.
- R2.2 The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.



# Environment Protection Licence

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## R3 Written report

- R3.1 Where an authorised officer of the EPA suspects on reasonable grounds that:
- a) where this licence applies to premises, an event has occurred at the premises; or
  - b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence,
- and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.
- R3.2 The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.
- R3.3 The request may require a report which includes any or all of the following information:
- a) the cause, time and duration of the event;
  - b) the type, volume and concentration of every pollutant discharged as a result of the event;
  - c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;
  - d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
  - e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
  - f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and
  - g) any other relevant matters.
- R3.4 The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

## R4 Other reporting conditions

- R4.1 The licensee must retain records detailing irrigation of waste water from the dam at the premises for four years. These records shall be made available to EPA officers upon request.

### Annual Waste Summary Reporting

- R4.2 The licensee must complete and submit to the EPA an Annual Waste Summary Report each financial year.
- R4.3 The Annual Waste Summary Report must be submitted to the EPA via the Waste and Resource Reporting Portal (WARRP) within 60 days of the end of the financial year.

## 7 General Conditions

# Environment Protection Licence

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## **G1 Copy of licence kept at the premises or plant**

G1.1 A copy of this licence must be kept at the premises to which the licence applies.

G1.2 The licence must be produced to any authorised officer of the EPA who asks to see it.

G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.

## **8 Special Conditions**

### **E1 Odour Complaints/Feedback Management System**

E1.1 The licensee must maintain and operate an Odour Complaints/Feedback Management System. The licensee must adhere to the complaints/feedback management system which is to contain the procedures outlined below.

E1.2 An advertised telephone number for complaints/feedback:

A 24-hour telephone number is to be set aside for complaints and/or feedback. The number must be made known to the public by

- a) Inclusion in future telephone directory listings for Elf Farm Supplies
- b) Direct advice to Hawkesbury City Council, the EPA and any persons who may contact the plant regarding odour by mail or using existing phone numbers
- c) Inclusion on a sign at the property entrance
- d) Issue to interested persons via business cards or other media as the case arises.

E1.3 Complaints logging and investigation:

Details of any complaints received by the Licensee must be documented and kept at a location on the premises as follows:

- a) Every complaint is to be investigated at the time it is received and a record created of the response.
- b) If the complaint is received by staff at the time the odour is claimed to be present, the location where the odour is detected must be attended to confirm the report and note relevant details.
- c) If for any reason it is not possible to attend the location of the reported odour, and where contact details are available, the Licensee is to contact the complainant for more information regarding the complaint.
- d) Where investigation or further contact is not possible due to a delayed or anonymous complaint, no contact details for the complainant or difficulty in attending the reported location, a record must nonetheless be made of the complaint.
- e) A record is to be made of activities at the plant during the period leading up to the time of the reported incident.
- f) The wind strength and direction is to be obtained and recorded from the weather station for the period of one hour prior to the reported incident.
- g) The oxygen content (%) of compost in the pre-wet processing phase is to be obtained and recorded from one hour preceeding the odour incident until the time the incident is reported to have ceased.

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- E1.4 An Odour Complaint Report is to be completed to summarise all actions taken to investigate the complaint including:
- a) Time, date and location of the odour report;
  - b) Name and address of the complainant (if provided);
  - c) The name of the person conducting the investigation;
  - d) The activities in the plant in the one hour preceding the reported incident;
  - e) The average wind speed and direction during the one hour preceding the odour incident;
  - f) The oxygen content (%) of compost in the pre-wet processing phase from one hour preceding the odour incident until the time the incident is reported to have ceased;
  - g) Any other observations as to the possible source of the odour incident.
- E1.5 A summary of the information documented under Condition E1.4 (a)-(e) and (g) is to be given to the complainant, where possible, in a follow-up telephone call or letter.
- E1.6
- a) The record of a complaint must be kept for at least 4 years after a complaint was made.
  - b) Records must be made available to an authorised officer of the EPA who asks to see them.

# Environment Protection Licence

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## Dictionary

### General Dictionary

<b>3DGM [in relation to a concentration limit]</b>	Means the three day geometric mean, which is calculated by multiplying the results of the analysis of three samples collected on consecutive days and then taking the cubed root of that amount. Where one or more of the samples is zero or below the detection limit for the analysis, then 1 or the detection limit respectively should be used in place of those samples
<b>Act</b>	Means the Protection of the Environment Operations Act 1997
<b>activity</b>	Means a scheduled or non-scheduled activity within the meaning of the Protection of the Environment Operations Act 1997
<b>actual load</b>	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
<b>AM</b>	Together with a number, means an ambient air monitoring method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
<b>AMG</b>	Australian Map Grid
<b>anniversary date</b>	The anniversary date is the anniversary each year of the date of issue of the licence. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
<b>annual return</b>	Is defined in R1.1
<b>Approved Methods Publication</b>	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
<b>assessable pollutants</b>	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
<b>BOD</b>	Means biochemical oxygen demand
<b>CEM</b>	Together with a number, means a continuous emission monitoring method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
<b>COD</b>	Means chemical oxygen demand
<b>composite sample</b>	Unless otherwise specifically approved in writing by the EPA, a sample consisting of 24 individual samples collected at hourly intervals and each having an equivalent volume.
<b>cond.</b>	Means conductivity
<b>environment</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>environment protection legislation</b>	Has the same meaning as in the Protection of the Environment Administration Act 1991
<b>EPA</b>	Means Environment Protection Authority of New South Wales.
<b>fee-based activity classification</b>	Means the numbered short descriptions in Schedule 1 of the Protection of the Environment Operations (General) Regulation 2009.
<b>general solid waste (non-putrescible)</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997

# Environment Protection Licence

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<b>flow weighted composite sample</b>	Means a sample whose composites are sized in proportion to the flow at each composites time of collection.
<b>general solid waste (putrescible)</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
<b>grab sample</b>	Means a single sample taken at a point at a single time
<b>hazardous waste</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
<b>licensee</b>	Means the licence holder described at the front of this licence
<b>load calculation protocol</b>	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
<b>local authority</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>material harm</b>	Has the same meaning as in section 147 Protection of the Environment Operations Act 1997
<b>MBAS</b>	Means methylene blue active substances
<b>Minister</b>	Means the Minister administering the Protection of the Environment Operations Act 1997
<b>mobile plant</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
<b>motor vehicle</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>O&amp;G</b>	Means oil and grease
<b>percentile [in relation to a concentration limit of a sample]</b>	Means that percentage [eg.50%] of the number of samples taken that must meet the concentration limit specified in the licence for that pollutant over a specified period of time. In this licence, the specified period of time is the Reporting Period unless otherwise stated in this licence.
<b>plant</b>	Includes all plant within the meaning of the Protection of the Environment Operations Act 1997 as well as motor vehicles.
<b>pollution of waters [or water pollution]</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>premises</b>	Means the premises described in condition A2.1
<b>public authority</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>regional office</b>	Means the relevant EPA office referred to in the Contacting the EPA document accompanying this licence
<b>reporting period</b>	For the purposes of this licence, the reporting period means the period of 12 months after the issue of the licence, and each subsequent period of 12 months. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
<b>restricted solid waste</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
<b>scheduled activity</b>	Means an activity listed in Schedule 1 of the Protection of the Environment Operations Act 1997
<b>special waste</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
<b>TM</b>	Together with a number, means a test method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .



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<b>TSP</b>	Means total suspended particles
<b>TSS</b>	Means total suspended solids
<b>Type 1 substance</b>	Means the elements antimony, arsenic, cadmium, lead or mercury or any compound containing one or more of those elements
<b>Type 2 substance</b>	Means the elements beryllium, chromium, cobalt, manganese, nickel, selenium, tin or vanadium or any compound containing one or more of those elements
<b>utilisation area</b>	Means any area shown as a utilisation area on a map submitted with the application for this licence
<b>waste</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>waste type</b>	Means liquid, restricted solid waste, general solid waste (putrescible), general solid waste (non - putrescible), special waste or hazardous waste

Ms Nadia Kanhoush

Environment Protection Authority

(By Delegation)

Date of this edition: 01-August-2000



# Environment Protection Licence

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## End Notes

- 1 Licence varied by notice 1001783, issued on 19-Sep-2000, which came into effect on 14-Oct-2000.
- 2 Licence varied by notice 1010892, issued on 19-Oct-2001, which came into effect on 13-Nov-2001.
- 3 Licence varied by notice 1015799, issued on 20-Mar-2002, which came into effect on 14-Apr-2002.
- 4 Licence varied by notice 1018881, issued on 17-Jul-2002, which came into effect on 11-Aug-2002.
- 5 Licence varied by notice 1019967, issued on 29-Aug-2002, which came into effect on 23-Sep-2002.
- 6 Licence varied by notice 1021960, issued on 28-Nov-2002, which came into effect on 23-Dec-2002.
- 7 Licence varied by notice 1031591, issued on 13-Oct-2003, which came into effect on 13-Oct-2003.
- 8 Licence varied by notice 1032264, issued on 02-Dec-2003, which came into effect on 27-Dec-2003.
- 9 Licence varied by notice 1040144, issued on 08-Sep-2004, which came into effect on 03-Oct-2004.
- 10 Licence varied by notice 1064617, issued on 08-Sep-2006, which came into effect on 08-Sep-2006.
- 11 Licence varied by notice 1073027, issued on 28-May-2007, which came into effect on 28-May-2007.
- 12 Licence transferred through application 145582, approved on 06-Aug-2008, which came into effect on 01-Jul-2008.
- 13 Condition A1.3 Not applicable varied by notice issued on <issue date> which came into effect on <effective date>
- 14 Licence varied by notice 1096799, issued on 04-Feb-2009, which came into effect on 04-Feb-2009.
- 15 Licence varied by Correction to EPA Regional data record., issued on 23-Jun-2010, which came into effect on 23-Jun-2010.
- 16 Licence varied by correction to DECCW Region data record, issued on 07-Jul-2010, which came into effect on 07-Jul-2010.
- 17 Licence varied by notice 1507559 issued on 14-Sep-2012
- 18 Licence transferred through application 1515019 approved on 24-Jun-2013 , which came into effect on 01-Jul-2013
- 19 Licence varied by notice 1515813 issued on 07-Aug-2013



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20	Licence varied by notice	1519001 issued on 15-May-2014
21	Licence varied by notice	1523940 issued on 24-Sep-2014
22	Licence transferred through application 1525415 approved on 07-Oct-2014 , which came into effect on 01-Oct-2014	
23	Licence varied by notice	1535927 issued on 08-Mar-2016
24	Licence varied by notice	1543371 issued on 23-Sep-2016
25	Licence varied by notice	1570728 issued on 04-Oct-2018



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## APPENDIX C

### DEPARTMENT OF PLANNING, INDUSTRY AND ENVIRONMENT – CORRESPONDENCE

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Neil Cockerell – General Manager  
Elf Farm Supplies Pty Ltd  
108 Mulgrave Road,  
MULGRAVE NSW 2756

30 September 2021

Dear Mr Cockerell

**Elf Mushroom Facility - 2021 AEMR (MP08\_0255)  
Annual Review 2021**

Reference is made to the Annual Review for the period September 2020 to August 2021, submitted to the Department of Planning, Industry and Environment (the Department) on 27 September 2021 as required under Schedule 5 Condition 3 of MP08\_0255 (consent), as modified, and the Department's letter dated 26 October 2018 (letter).

The Department has reviewed the Annual Review and considers it to be generally in accordance with the reporting requirements of the consent and letter. Please make publicly available a copy of the 2021 Annual Review on the company website.

Please note that the Department's acceptance of this Annual Review is not endorsement of the compliance status of the project. Non-compliances identified in the Annual Review will be assessed in accordance with the Department's Compliance Policy. Further correspondence may be sent in relation to non-compliances.

Should you need to discuss the above, please contact Laura Papoulias on 02 8289 6879 or email [compliance@planning.nsw.gov.au](mailto:compliance@planning.nsw.gov.au).

Yours sincerely



Julia Pope  
Team Leader Compliance - Metro  
As nominee of the Planning Secretary



Elf Farm Supplies Pty Ltd  
ACN 131 333 830  
108 Mulgrave Road,  
Mulgrave NSW 2756

Our ref: PSIMS Case #28969986

BY EMAIL ONLY: [blake@elffarm.com.au](mailto:blake@elffarm.com.au)

21 December 2021

Attention: Norah Ruth Tolson - Director

### WARNING LETTER

#### BREACH OF SECTION 4.2 OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

#### Elf Mushroom Farm Substrate Plant MP08\_0255

Following an investigation, the Department of Planning, Industry and Environment (**Department**) has determined that Elf Farm Supplies Pty Ltd (**EFS**) has committed an offence against section 4.2 of the *Environmental Planning and Assessment Act 1979* (**Act**) by failing to comply with a condition of approval of MP08\_0255 dated 11 January 2012 (**Original Approval**), subsequently modified on 14 March 2016 (**Mod 1 Approval**), 14 November 2019 (**Mod 2 Approval**) and 16 March 2020 (**Mod 3 Approval**).

Further details of the breach are set out below.

#### PARTICULARS OF BREACH

##### 1. Failure to establish Riparian Corridor in accordance with Schedule 3, Condition 23 of the Mod 3 Approval

Schedule 3, Condition 23 of the Mod 3 Approval states:

*“The Proponent must establish a fenced, 35 metre wide riparian corridor along the length of the South Creek within 12 months of commencement of operation of Stage 1. The Proponent must consult with the Hawkesbury-Nepean Catchment Management Authority on methods and species selection to ensure that best practise techniques are used at the site, to the satisfaction of the Secretary”*

On 21 May 2021, the Department received the project's 2021 Independent Environmental Audit (**IEA**), which identified several non-compliances. Of the non-compliances identified within the IEA, was a breach of Schedule 3, Condition 23 of the Mod 3 Approval.

The IEA states in relation to Schedule 3, Condition 23 of the Mod 3 Approval as follows:

*“The riparian corridor has now been established, however it was recorded as a non-compliance as it was not completed within the required time-frame.”*

EFS have since advised the Department that construction of Stage 1 was finalised on 30 June 2018, and that the operations of Stage 1 commenced shortly after this date. As such, the condition requires that the riparian corridor be established by approximately 1 July 2019, which is 12 months following the commencement of operations of Stage 1.

EFS further advised the Department that the riparian corridor works commenced on 14 November 2019 and were completed on 10 January 2020, which is approximately 6 months after the commencement of operations of Stage 1. This constitutes a breach of Schedule 3, Condition 23 of the Mod 3 Approval.

## **2. Failure to review the Environmental Management Strategy in accordance with Schedule 5, Condition 4(d) of the Mod 3 Approval**

Further, Schedule 5, Condition 4 of the Mod 3 Approval states:

*“Within 3 months of:*

- a) the submission of an incident report under condition 5 of schedule 5; and*
- b) the submission of an annual review under condition 3 of schedule 5;*
- c) the submission of an independent environmental audit under condition 3A of Schedule 5; and*
- d) the approval of any modification of the conditions of this approval,**

*the strategies, plans and programs required under this approval must be reviewed.”*

The 2021 IEA states in relation to Schedule 5, Condition 1 of the MOD 3 Approval:

*“There are many sections of the Strategy that require updating to reflect MOD1 completion. For example but not limited to, Sections 2.3, 4.2, 4.3, 5.2.2, 5.3, 7.2, 7.3, 8.1.3, 8.2 and 8.3. Figures 2 and 3 and the Appendices all contain many out of date documents, for example the EPL. Many of the Plans in the appendices are being used but have not been included in the Strategy. This is considered an administrative non-compliance as not having the Strategy up-to-date has not resulted in an environmental incidents.”*

EFS did not review the project's Environmental Management Strategy (**EMS**) within 3 months of the approval of the Mod 3 Approval i.e.: 14 June 2016. This has been identified as a breach of Schedule 5, Condition 4 of the Mod 3 Approval.

EFS have since advised that on 26 November 2021, they had submitted to the Department for approval their revised Environmental Management Strategy (**EMS**) to address its current inadequacies identified in the IEA. At present, the EMS has not been approved by the Secretary. The Department has therefore identified a breach of Schedule 5, Condition 4d) of the MOD 3 Approval, as while the EMS had been reviewed by EFS in November 2021 and is currently awaiting Secretary approval, it was required to have been reviewed approximately five (5) years and six (6) months ago.

## **WARNING LETTER**

The Department has assessed the breach in accordance with its Compliance Policy and determined to issue EFS with a Warning Letter for the breach. In reaching this decision, the Department has considered the particulars of the breach set out above and the following matters:

- The breaches caused no known impact on public health and safety, or the environment;
- No incidents or complaints were recorded as a result of the breaches;



- The breach of Schedule 5, Condition 1 is currently being rectified;
- The breach of Schedule 3, Condition 23 is not ongoing;
- The duration for which both breaches occurred has been a significant period of time;
- The failure to comply with these conditions impacts on the integrity of the planning system.

A Warning Letter is an informal action taken where a breach has been established and the Department has determined that no formal enforcement action is warranted in the circumstances.

The issue of a Warning Letter does not preclude the Department from taking further enforcement action in relation to the breach, if it becomes apparent that an alternative response is more appropriate.

The Department will retain a copy of this Warning Letter on file. If you commit an offence in the future, the Department will consider this Warning Letter when determining the most appropriate enforcement action.

If you wish to discuss this further, please contact Laura Papoulias on (02) 8289 6879 or email to [compliance@planning.nsw.gov.au](mailto:compliance@planning.nsw.gov.au)

Yours sincerely



**Laura Papoulias – Compliance officer (Metro)**

*Authorised person under the Environmental Planning and Assessment Act 1979*

Our ref: MP08\_0255-PA-15

Mr Blake Edwards  
WHS/HR & Compliance Manager  
Elf Farm Supplies Pty Ltd  
108 Mulgrave Rd  
MULGRAVE NSW 2756

9 September 2022

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**Subject:** Updated Environmental Management Strategy for the Elf Mushroom Farm and Substrate Plant Project (Schedule 5, condition 1 of 08\_0255)

Dear Mr Edwards

I refer to your recent correspondence regarding the Elf Mushroom Farm and Substrate Plant Project (08\_0255). I understand you are seeking the Planning Secretary's acceptance of the substrate plant's updated Environmental Management Strategy (EMS) (Schedule 5, condition 1) and Energy Efficiency Plan (EEP) (Schedule 3, condition 9), pursuant to Schedule 5, conditions 4 and 4A of the project approval.

I note the updated EMS is supported by the following subplans, which were previously approved by the Planning Secretary:

- Odour Management Plan (Schedule 3, conditions 4 to 4B)
- Water Management Plan (Schedule 3, conditions 17 to 17E)
- Noise Management Plan (Schedule 3, conditions 22 to 22B)
- Community Consultation Strategy (Schedule 5, condition 6).

The Department of Planning and Environment (the Department) has reviewed the updated management plans and is satisfied they adequately addresses the requirements of the relevant conditions of approval. Accordingly, I approve the following plans:

- *Elf Farm Supplies – Mushroom Substrate Plant, Mulgrave – Environmental Management Strategy*, prepared by Elf Farm Supplies Pty Ltd, dated June 2022, issue 02.0
- *Energy Efficiency Plan*, prepared by Elf Farm Supplies Pty Ltd, dated May 2022, issue 002.

Please be reminded that the updated EMS and EEP must be implemented for the life of the project. In addition, you must ensure that a copy of the updated EMS and all associated subplans are placed on the project's website at the earliest convenience, pursuant to Schedule 5, condition 8 of the project approval.

If you wish to discuss the matter further, please contact Patrick Copas on (02) 9274 6273 or via email at [patrick.copas@planning.nsw.gov.au](mailto:patrick.copas@planning.nsw.gov.au).

Yours sincerely

A handwritten signature in black ink, appearing to read 'J. Bakopanos'.

**Joanna Bakopanos**

Team Leader

Industry Assessments

As nominee of the Planning Secretary



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## APPENDIX D

## IMAGES

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## APPENDIX E

### MONITORING REPORTS

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# ELF FARM SUPPLIES

## Annual Biofilter Testing

### Prepared for:

Elf Farm Supplies Pty Ltd  
PO Box 615  
WINDSOR NSW 2756

SLR Ref: 610.30900-R01  
Version No: -v1.0  
August 2022



## PREPARED BY

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## BASIS OF REPORT

This report has been prepared by SLR Consulting Australia Pty Ltd (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Elf Farm Supplies Pty Ltd (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 the Client. 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
610.30900-R01-v1.0	10 August 2022	A Naghizadeh	G Starke	A Naghizadeh

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Appendix A	Certificates of Analysis
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# 1 Introduction

SLR Consulting Australia (SLR) was commissioned by Elf Farm Supplies (EFS) to conduct annual odour emission testing on the Biofilter Control System serving the EFS substrate facility located at 108 Mulgrave Road, Mulgrave NSW.

The purpose of the annual odour emission testing was to measure the odour concentration, odour emission rate and odour removal efficiency of the EFS biofilter and compare these against measurements taken in 2018 (as part of a site wide odour audit completed by SLR) and those adopted by the Odour Impact Assessment prepared by The Odour Unit dated 28 August 2015 (the OIA).

This report outlines the methodology and results of the biofilter odour monitoring.

## 1.1 Biofilter Testing Methodology

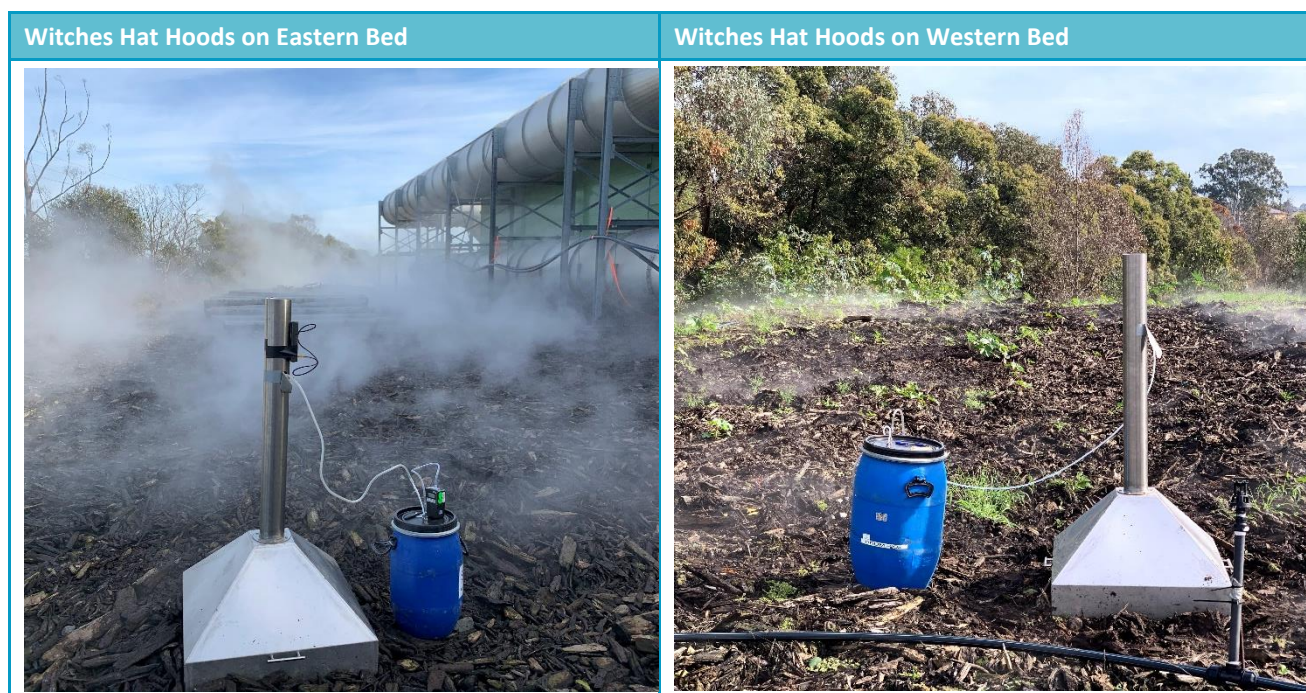
SLR conducted representative Biofilter odour testing in general accordance with:

- Australian Standards and New Zealand Standards (AS/NZS) 4323.3:2001 (R2014) Stationary source emissions – Determination of odour concentration by dynamic olfactometry; and
- AS/NZS 4323.4:2009 Stationary source emissions - Area source sampling - Flux chamber technique.

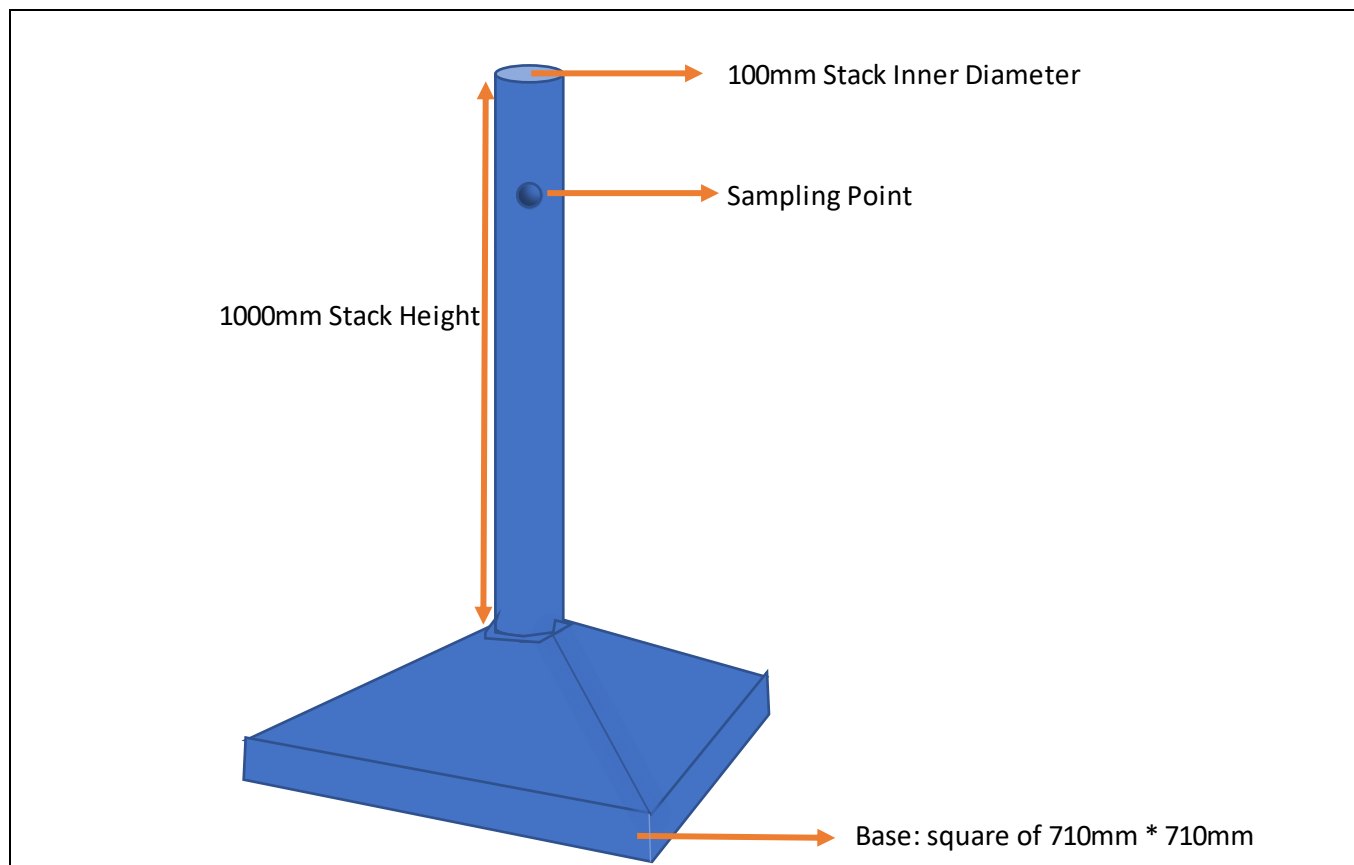
### 1.1.1 Biofilter Outlet Odour Testing

The AS/NZS 4323.4 Flux chamber technique is typically used for non-aerated surfaces such as landfill sites, ponds etc. An equilibrium hood is placed on the surface and nitrogen supply sweep air is used to stimulate the odorous surface within the equilibrium hood and therefore allowing a sample to be collected. However, a Biofilter system is aerated by a pressurised ventilation system. Therefore, SLR adopted the use of a Witches Hat hood (WHH) to conduct representative measurements that do not require nitrogen sweep air to collect a representative sample. Refer to **Figure 1** for an illustration of the Witches Hat hoods being used on the EFS Biofilter bed. Refer to **Figure 2** for a schematic of the Witches Hat hood used.

**Figure 1 Illustration of Witches Hat Hoods being used on EFS Biofilter Beds**



**Figure 2 Illustration of Witches Hat Hood Dimensions**



In order to ensure consistency with the testing across the whole Biofilter bed and to minimise the variability that is typically associated with biofilters, SLR divided the EFS biofilter system into two (2) beds. SLR has identified these as the Eastern bed and the Western bed. SLR then further divided these two beds into evenly distributed rows (length and width).

The Eastern bed has a surface area of approximately 1,500 square meters (m<sup>2</sup>). SLR divided this bed into six (6) equal rows along its length and three (3) equal rows along its width (approximately 10 m by 9 m grid cells). This resulted in a total of 18 sample points evenly distributed across the Eastern biofilter bed.

The Western Bed has a surface area of approximately 1,278 m<sup>2</sup>. SLR divided this bed into five (5) equal rows along its length and three equal rows along its width (approximate 9 m by 9 m grid cells). This resulted in a total of 15 sample points evenly distributed across the Western biofilter bed.

EFS confirmed the total surface area of the Biofilter bed is 2,778 m<sup>2</sup>.

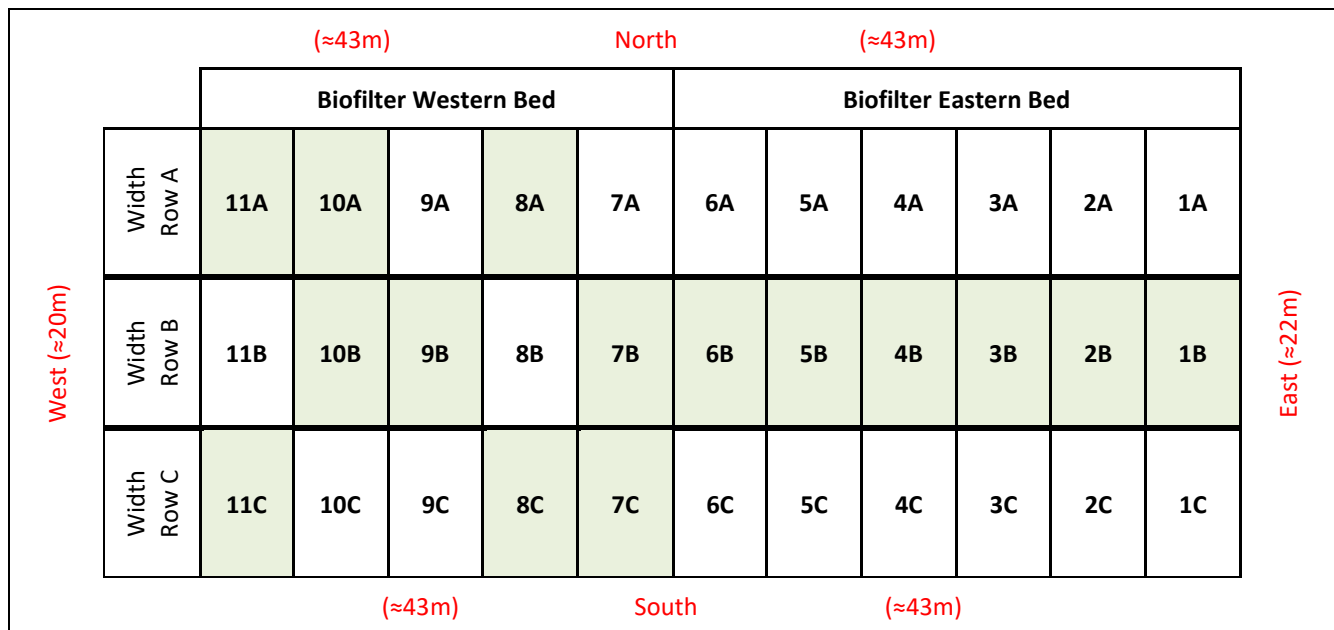
It is noted that at the time of the sampling, part of the eastern and western beds were inactive as the bedding material was being replaced. The active area of the beds was measured as follows:

- Eastern bed: approximately 22 m by 43 m
- Western bed: approximately 20 m by 43 m

The number of sample points for each bed was kept consistent with sampling conducted as part of a site wide odour audit completed by SLR in 2018. The smaller active surface area resulted in a tighter grid (approximately 7 m by 7 for the Eastern bed and 8 m by 8 for the Western bed).

Refer to **Figure 3** for an illustration of the Biofilter beds (as sampled) distributed into their grids.

**Figure 3 Illustration of the Biofilter Distributed into 33 Grids**



Note: the image above does not represent actual layout.

Note 2: odour samples were collected from cells highlighted green



Each grid cell was measured, as a minimum, for temperature and surface velocity at approximately the centre of each grid cell. The data was then assessed to determine if surface velocities measured for each north to south row were consistent or if there was evidence of breakthrough (high velocity) or blockage (low velocity). Should the scenario exist that a north to south row demonstrated inconsistency, SLR collected from that north to south row a single odour sample from the grid with the highest surface velocity measured and a single odour sample from the grid with the lowest surface velocity measured. SLR considered inconsistency to exist when there was a difference of greater than 20% from the average velocity measured. For all north to south rows with consistent surface velocities, SLR collected single samples from the middle grids (Row B).

A total of 15 samples were collected from the biofilter outlet. The locations where samples were collected are indicated in **Figure 3**. It is noted that flows from the Eastern bed, which contained fresh media, were overall much more consistent than flows from the Western bed which has not yet had its media replaced. SLR understands that replacement of the Western bed media is scheduled to be completed by prior to the next round of annual testing.

Duplicate or triplicate samples, to quantify odour emission variability, at each nominated grid point were deemed not required as each odour sample is based on the same source gas distributed consistently across the biofilter based on the velocities measured. Hence repeatability of the odour samples has already been considered in the 15 samples measured across the biofilter.

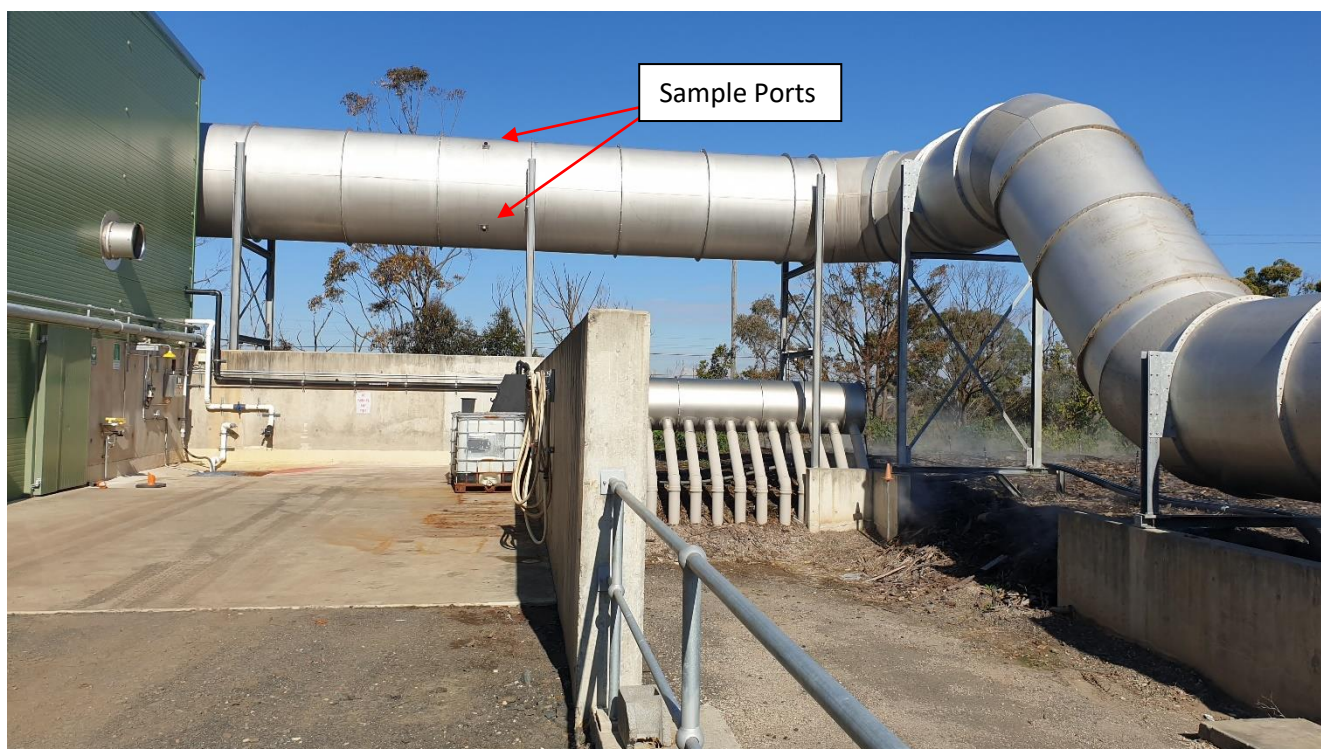
The samples were analysed by a NATA accredited odour laboratory, The Odour Unit (TOU) within the specified 30 hours from sample collection. All samples were delivered to TOU as blind samples.

### 1.1.2 Biofilter Inlet Odour Testing

The 'lung method' was used to collect representative samples from the Biofilter Inlet. SLR collected the gas samples from the Biofilter Inlet in accordance with AS/NZS 4323.3:2001 (R2014) *Stationary source emissions – Determination of odour concentration by dynamic olfactometry*. The samples were analysed by a NATA accredited odour laboratory (TOU) within the 30 hours specification. One (1) sample was collected for the inlet into the Eastern bed and one (1) sample was collected for the inlet into the Western bed.

A sample access point compliant with the requirements of AS/NZS 4323.1:1995 *Stationary source emissions - Method 1: Selection of sampling positions* is available for the western biofilter (see **Figure 4**). However, due to the design of the eastern bed, such an access point could not be installed on the inlet to this biofilter and a large number of sample access points would need to be installed along the aluminium ducting to each section of the eastern bed to obtain total flow. As such, SLR assumed that the total air flow at the Biofilter inlet was equal to the total air flow at the Biofilter outlet. This was verified by comparing SLR measured total air flow from the Biofilter outlet to the EFS online Supervisory Control and Data Acquisition (SCADA) system recordings at each individual post ammonia scrubber location. The odour sample for the eastern biofilter inlet was collected from a sample point installed approximately midway down the biofilter (see **Figure 5**).

**Figure 4 Illustration of Western Biofilter Inlet Sample Ports**



**Figure 5 Illustration of Eastern Biofilter Inlet Sample Port**



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## 2 Biofilter Results

### 2.1 Biofilter Outlet Results

The Biofilter Outlet was tested under normal operating conditions on Wednesday 29 June 2022 and Thursday 30 June 2021. These days were nominated for testing as Wednesday and Thursday are considered the worst case scenario in terms of odours being generated from the typical composting activities occurring on site. All samples were collected using the Witches Hat Hood method.

Refer to **Table 1** and **Table 2** for a tabulated summary detailing sampling times, temperature and air velocities measured within the Witches Hat Hoods.

As mentioned in **Section 1.1**, SLR reviewed all air velocities measured across the biofilter beds to check for consistency along each north to south row (rows 1 to 11) to determine if additional odour samples were required due to variability in the flow through these rows. Flow variations across a row greater than 20% from the average row velocities measured were observed at four north to south rows. Additional odour samples were collected from these identified rows in line with the methodology outlined in **Section 1.1** to ensure a representative data set is collected.

Refer to

Table 3 to **Table 5** for detailed results of the odour concentrations measured for the Eastern and Western biofilter beds. Refer to **Appendix A** for Certificates of Analysis.

In summary, the maximum odour concentration measured was 431 odour units (ou) and the average odour concentration measured was 183 ou.

**Table 6** provides detailed results of the Mass Odour Emission Rates (MOER) per biofilter grid cell measured. The measured MOER for the entire biofilter is 11,752 ou.m<sup>3</sup>/s. It is noted that MOERs presented in **Table 6** for each grid point have been calculated based on a 158 m<sup>2</sup> area for the Eastern bed samples and 96 m<sup>2</sup> for the Western bed samples rather than the actual areas, to allow for grids not sampled. As such, the sum of all MOERs is representative of the whole biofilter rather than the grid cells sampled.

**Table 1 Summary of Biofilter Measured Results – Temperature and Air Velocities – 29 June 2022**

North													
		Biofilter Western Bed					Biofilter Eastern Bed						
Grid Identification	West	Row A	11A	10A	9A	8A	7A	6A	5A	4A	3A	2A	1A
Time of Measurement			12:27	12:25	12:16	12:14	12:04	9:19	9:06	9:01	8:50	8:48	8:32
Air Velocity (m/s)			2.3	3.0	1.9	2.3	2.4	2.5	2.3	2.3	2.1	1.8	2.0
Temp in WHH (°C, dry)			34.1	35.2	34.5	35.3	35.1	26.2	24.8	23.7	21.3	21.0	20.7
Grid Identification		Row B	11B	10B	9B	8B	7B	6B	5B	4B	3B	2B	1B
Time of Measurement			12:30	12:23	12:17	12:12	12:06	9:16	9:09	8:58	8:52	8:46	8:36
Air Velocity (m/s)			2.5	1.4	2.3	2.5	1.9	2.3	2.4	2.4	2.2	2.0	1.9
Temp in WHH (°C, dry)			33.7	31.4	34.6	34.9	35.2	26.8	26.2	25.1	21.4	20.8	20.6
Grid Identification		Row C	11C	10C	9C	8C	7C	6C	5C	4C	3C	2C	1C
Time of Measurement			12:32	12:21	12:19	12:10	12:08	9:14	9:12	8:56	8:54	8:44	8:42
Air Velocity (m/s)			3.6	2.9	2.3	3.3	3.1	2.1	2.3	2.5	2.1	1.9	2.1
Temp in WHH (°C, dry)			34.6	34.5	33.4	36.7	37.2	27.1	26.3	24.7	21.6	20.9	20.8
South													
Avg. Air Velocity (m/s)			2.8	2.4	2.2	2.7	2.5	2.3	2.3	2.4	2.2	1.9	2.0
Avg. Air Velocity across Biofilter (m/s)			2.3										
East													

East

**Table 2 Summary of Biofilter Measured Results – Temperature and Air Velocities – 30 June 2022**

North														
		Biofilter Western Bed					Biofilter Eastern Bed							
Grid Identification	West	Row A	11A	10A	9A	8A	7A	6A	5A	4A	3A	2A	1A	East
Time of Measurement			10:43	10:05	9:45	9:10	8:15	11:59	11:46	11:41	11:30	11:28	11:12	
Air Velocity (m/s)			2.0	2.7	3.5	2.1	2.1	2.5	2.3	2.2	2.1	1.8	1.9	
Temp in WHH (°C, dry)			34.9	32.1	32.5	34.0	31.3	26.2	24.8	23.7	21.3	21.0	20.7	
Grid Identification		Row B	11B	10B	9B	8B	7B	6B	5B	4B	3B	2B	1B	
Time of Measurement			11:07	10:00	9:40	9:30	8:20	11:56	11:49	11:38	11:32	11:26	11:16	
Air Velocity (m/s)			2.3	1.3	2.8	1.5	1.2	2.2	2.3	2.4	2.2	1.9	1.9	
Temp in WHH (°C, dry)			31.8	35.1	35.7	31.7	35.2	26.8	26.2	25.1	21.4	20.8	20.6	
Grid Identification		Row C	11C	10C	9C	8C	7C	6C	5C	4C	3C	2C	1C	
Time of Measurement			10:50	9:55	9:50	9:20	8:30	11:54	11:52	11:36	11:34	11:24	11:22	
Air Velocity (m/s)			3.3	3.0	3.0	3.0	2.3	2.1	2.3	2.5	2.1	1.9	2.0	
Temp in WHH (°C, dry)			36.4	33.2	36.0	36.0	34.5	27.1	26.3	24.7	21.6	20.9	20.8	
South														
Avg. Air Velocity (m/s)			2.6	2.3	3.1	2.2	1.9	2.3	2.3	2.4	2.1	1.9	2.0	
Avg. Air Velocity across Biofilter (m/s)			2.3											



**Table 3 Summary of Biofilter Outlet Results – Eastern Bed – 29 June 2022**

Parameter	Sample 1B	Sample 2B	Sample 3B	Sample 4B	Sample 5B	Sample 6B
SLR Sample No.	12326	12325	12324	12323	12322	12321
Sample Start Time	29-06-2022 10:59	29-06-2022 10:44	29-06-2022 10:30	29-06-2022 10:15	29-06-2022 9:58	29-06-2022 9:46
Sample Finish Time:	29-06-2022 11:09	29-06-2022 10:58	29-06-2022 10:40	29-06-2022 10:27	29-06-2022 10:08	29-06-2022 10:58
NATA Laboratory I.D No.	SC22374	SC22373	SC22372	SC22371	SC22370	SC22369
Analysis Date & Time Completed	30-06-2022 13:45	30-06-2022 13:18	30-06-2022 12:05	30-06-2022 11:22	30-06-2022 10:49	30-06-2022 10:15
Sample Analysis Period in Compliance ( $\leq 30$ -hrs)	26.6	26.3	25.4	24.9	24.7	23.3
$(D_{s\ WHH})$ Sample Point WHH Stack Internal Diameter (mm)	100	100	100	100	100	100
$(A_{s\ WHH})$ Sample Plane Cross Sectional Area ( $m^2$ )	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079
$(T_{s\ WHH})$ Average Stack (Surface) Temperature ( $^{\circ}C$ )	26.7	27.0	25.9	32.1	28.8	30.1
$(P_{s\ WHH})$ Average Stack / Surface Pressure (kPa)	102.7	102.7	102.7	102.7	102.8	102.8
$(v_{s\ (WHH)})$ Average Grid Stack Air Velocity (m/s)	2.08	1.85	1.77	2.11	2.26	2.15
$(Q_{a\ WHH})$ Actual Grid Flow Rate ( $m^3/s$ )	0.0163	0.0145	0.0139	0.0166	0.0177	0.0169
$(D_{B\ WHH})$ WHH Base Internal Diameter (mm)	801	801	801	801	801	801
$(A_{B\ WHH})$ WHH Base Cross Sectional Area ( $m^2$ )	0.504	0.504	0.504	0.504	0.504	0.504
$(Q_{flux})$ Actual Grid Surface Flux Velocity (m/s)	0.032	0.029	0.028	0.033	0.035	0.034
<b>Odour Concentration (wet) (ou)</b>	<b>99</b>	<b>91</b>	<b>118</b>	<b>235</b>	<b>181</b>	<b>64</b>
EPL Odour Concentration Limit (ou)	500	500	500	500	500	500
Odour Character	Dirt, Soil	Dirt, Soil	Dirt, Soil, cabbage	Dirt, Soil	Dirt, Soil, cabbage	Dirt, Soil



**Table 4 Summary of Biofilter Outlet Results – Western Bed – 30 June 2022**

Parameter	Sample 7B	Sample 7C	Sample 8A	Sample 8C	Sample 9B
SLR Sample No.	12328	12329	12330	12331	12332
Sample Start Time	30-06-2022 8:33	30-06-2022 8:38	30-06-2022 9:06	30-06-2022 9:15	30-06-2022 9:34
Sample Finish Time:	30-06-2022 8:45	30-06-2022 8:48	30-06-2022 9:18	30-06-2022 9:25	30-06-2022 9:46
NATA Laboratory I.D No.	SC22376	SC22377	SC22378	SC22379	SC22380
Analysis Date & Time Completed	01-07-2022 10:01	01-07-2022 10:33	01-07-2022 11:05	01-07-2022 11:35	01-07-2022 12:02
Sample Analysis Period in Compliance ( $\leq 30$ -hrs)	25.3	25.7	25.8	26.2	26.3
( $D_{s\ WHH}$ ) Sample Point WHH Stack Internal Diameter (mm)	100	100	100	100	100
( $A_{s\ WHH}$ ) Sample Plane Cross Sectional Area (m <sup>2</sup> )	0.0079	0.0079	0.0079	0.0079	0.0079
( $T_{s\ WHH}$ ) Average Stack (Surface) Temperature (°C)	35.2	34.5	34.0	36.0	35.7
( $P_{s\ WHH}$ ) Average Stack / Surface Pressure (kPa)	102.5	102.5	102.5	102.5	102.5
( $v_{s\ (WHH)}$ ) Average Grid Stack Air Velocity (m/s)	1.65	2.15	1.82	4.45	2.54
( $Q_{a\ WHH}$ ) Actual Grid Flow Rate (m <sup>3</sup> /s)	0.0130	0.0169	0.0143	0.0350	0.0199
( $D_{B\ WHH}$ ) WHH Base Internal Diameter (mm)	801	801	801	801	801
( $A_{B\ WHH}$ ) WHH Base Cross Sectional Area (m <sup>2</sup> )	0.504	0.504	0.504	0.504	0.504
( $Q_{flux}$ ) Actual Grid Surface Flux Velocity (m/s)	0.026	0.034	0.028	0.069	0.040
<b>Odour Concentration (wet) (ou)</b>	<b>235</b>	<b>256</b>	<b>215</b>	<b>256</b>	<b>332</b>
EPL Odour Concentration Limit (ou)	500	500	500	500	500
Odour Character	Dirt, Soil	Dirt, Soil	Dirt, Soil	Dirt, Soil, Cabbage	Dirt, Soil

**Table 5 Summary of Biofilter Outlet Results – Western Bed – 30 June 2022- Continued**

Parameter	Sample 10A	Sample 10B	Sample 11A	Sample 11C
SLR Sample No.	12333	12334	12335	12336
Sample Start Time	30-06-2022 10:10	30-06-2022 10:14	30-06-2022 10:39	30-06-2022 10:45
Sample Finish Time:	30-06-2022 10:20	30-06-2022 10:26	30-06-2022 10:49	30-06-2022 10:57
NATA Laboratory I.D No.	SC22381	SC22382	SC22383	SC22384
Analysis Date & Time Completed	01-07-2022 13:12	01-07-2022 13:55	01-07-2022 14:28	01-07-2022 15:06
Sample Analysis Period in Compliance ( $\leq 30$ -hrs)	26.9	27.5	27.7	28.1
( $D_{s\ WHH}$ ) Sample Point WHH Stack Internal Diameter (mm)	100	100	100	100
( $A_{s\ WHH}$ ) Sample Plane Cross Sectional Area (m <sup>2</sup> )	0.0079	0.0079	0.0079	0.0079
( $T_{s\ WHH}$ ) Average Stack (Surface) Temperature (°C)	36.0	35.1	34.9	36.4
( $P_{s\ WHH}$ ) Average Stack / Surface Pressure (kPa)	102.5	102.4	102.4	102.4
( $v_{s\ (WHH)}$ ) Average Grid Stack Air Velocity (m/s)	2.57	1.62	2.15	3.23
( $Q_{a\ WHH}$ ) Actual Grid Flow Rate (m <sup>3</sup> /s)	0.0202	0.0127	0.0169	0.0254
( $D_{B\ WHH}$ ) WHH Base Internal Diameter (mm)	801	801	801	801
( $A_{B\ WHH}$ ) WHH Base Cross Sectional Area (m <sup>2</sup> )	0.504	0.504	0.504	0.504
( $Q_{flux}$ ) Actual Grid Surface Flux Velocity (m/s)	0.040	0.025	0.034	0.050
<b>Odour Concentration (wet) (ou)</b>	<b>59</b>	<b>54</b>	<b>118</b>	<b>431</b>
EPL Odour Concentration Limit (ou)	500	500	500	500
Odour Character	Dirt, Soil	Dirt, Soil	Dirt, Soil	Dirt, Soil, Cabbage

**Table 6 Summary of Biofilter Mass Odour Emission Rates – 29 and 30 June 2022**

Location	(Q <sub>flux</sub> ) Actual Grid Surface Flux Velocity (m/s)	Odour Concentration (wet) (ou)	(SOER) Surface Odour Emission Rate (wet) (ou.m/s)	Biofilter Grid Cross Sectional Area (m <sup>2</sup> )	Flow through Biofilter during Sampling (m <sup>3</sup> /hr)	(MOER) Mass Odour Emission Rate per Section (wet) (ou.m <sup>3</sup> /s)	OIA <sup>1</sup> MOER Modelled Operations (ou.m <sup>3</sup> /s)
Sample 1B	0.032	99	3.2	158	18,479	508	NA
Sample 2B	0.029	91	2.6	158	16,435	415	NA
Sample 3B	0.028	118	3.3	158	15,725	515	NA
Sample 4B	0.033	235	7.7	158	18,745	1,224	NA
Sample 5B	0.035	181	6.4	158	20,078	1,009	NA
Sample 6B	0.034	64	2.1	158	19,101	340	NA
Sample 7B	0.026	235	6.0	96	8,847	577	NA
Sample 7C	0.034	256	8.6	96	11,527	820	NA
Sample 8A	0.028	215	6.1	96	9,758	583	NA
Sample 8C	0.069	256	17.8	96	23,859	1,697	NA
Sample 9B	0.040	332	13.1	96	13,618	1,256	NA
Sample 10A	0.040	59	2.4	96	13,779	226	NA
Sample 10B	0.025	54	1.4	96	8,686	130	NA
Sample 11A	0.034	118	4.0	96	11,527	378	NA
Sample 11C	0.050	431	21.7	96	17,318	2,073	NA
<b>Total</b>	--	--	--	<b>1,810</b>	<b>227,483</b>	<b>11,752</b>	<b>54,168</b>

<sup>1</sup> Odour Impact Assessment prepared by The Odour Unit dated 28 August 2015

## 2.2 Biofilter Inlet Results

The biofilter inlets were measured on Wednesday 29 June 2022 and Thursday 30 June 2022 in parallel with the biofilter outlet testing. Refer to **Table 7** for a detailed summary of the biofilter inlet measured results. Refer to **Appendix A** for Certificates of Analysis.

**Table 7 Summary of Biofilter Inlet Results – 29 and 30 June 2022**

Parameter	Inlet -East	Inlet -West
SLR Sample No.	12327	12337
Sample Start Time	29-06-2022 11:25	30-06-2022 12:28
Sample Finish Time:	29-06-2022 11:35	30-06-2022 12:38
NATA Laboratory I.D No.	SC22375	SC22385
Analysis Date & Time Completed	30-06-2022 14:19	01-07-2022 15:38
Sample Analysis Period in Compliance ( $\leq 30$ -hrs)	26.7	27.0
( <b>A<sub>s</sub></b> ) Sample Plane Cross Sectional Area (m <sup>2</sup> )	--	4.5
( <b>T<sub>s</sub></b> ) Average Stack Temperature (°C)	33.8	36.2
( <b>P<sub>s</sub></b> ) Average Stack Pressure (kPa)	--	103.3
( <b>Q<sub>a</sub></b> ) Actual Flow Rate (m <sup>3</sup> /hr)	--	92,360
Flow through Biofilter Outlet during Sampling (m <sup>3</sup> /hr)	108,563 <sup>1</sup>	118,920
<b>Odour Concentration (wet) (ou)</b>	<b>2,050</b>	<b>27,600</b>
<b>Mass Odour Emission Rate (MOER) (ou.m<sup>3</sup>/s)</b>	<b>61,820</b>	<b>708,096</b>
Odour Character	Fish, oily	Grease, Ammonia, fermented

<sup>1</sup> denotes that SLR have assumed that Biofilter Inlet total air flow is equal to Biofilter Outlet due to no suitable access points being available to conduct air velocity measurements for the Eastern Biofilter Inlet. **Section 2.3** provides details of total air flow measurements from SCADA recordings and Biofilter Outlet recordings to demonstrate the Inlet air flow is similar to the outlet airflow. Difference between the presented Biofilter Outlet and Inlet flows above (~20%) is likely a result of the samples being collected at different times and variability in fan speeds.

## 2.3 Biofilter Efficiency Results

The efficiency of the Western biofilter bed (for which a suitable sampling port for the measurement of air velocity is available) were assessed through the comparison of Inlet vs Outlet MOERs as follows:

- $\{\text{Inlet MOER (708,096 ou.m}^3\text{/s)} - \text{Outlet MOER (7,740 ou.m}^3\text{/s)}\} \div \text{Inlet MOER (708,096 ou.m}^3\text{/s)}$

**Result  $\geq 95\%$  efficiency.**

For the Eastern biofilter, in the absence of a suitable sample point compliant with the requirements of AS 4323.1 for the measurement representative air flow through the inlet duct, efficiency calculations were assessed using the odour concentrations measured and assuming the flows through the biofilter inlet and outlet are similar. A comparison of the measured biofilter outlet flow measurements against recordings made by the Supervisory Control and Data Acquisition (SCADA) system confirms that the inlet and outlet flows are similar ( $\pm 20\%$ )(refer **Table 8**).

**Table 8 Comparison of Flow Measurements against SCADA Recordings**

Date	29-06-2022	30-06-2022
Sampling Point Internal Diameter (mm)	100	100
Sampling Plane Area (m <sup>2</sup> )	0.0079	0.0079
Biofilter Outlet Average Actual Air Velocity (m/s)	2.3	2.3
Biofilter Outlet Actual Flow Rate (m <sup>3</sup> /s)	0.018	0.018
Base Internal Diameter (mm)	801	801
Biofilter Outlet Actual Surface Flux Velocity (m/s)	0.036	0.035
Biofilter Surface Area (m <sup>2</sup> )	1,810	1,810
Total Measure Biofilter Outlet Flow (m <sup>3</sup> /hr)	236,449	230,563
EFS SCADA Readings (m <sup>3</sup> /hr) – Biofilter Inlet	281,609	279,196
Difference Between SCADA and Biofilter Outlet Readings	<b>-16.0%</b>	<b>-17.4%</b>

The efficiency of the Eastern Biofilter has been calculated as follows;

- { Inlet Conc. (2,050 ou) - Average Outlet Conc. (131 ou)} ÷ Inlet Conc. (2,050 ou)

**Result ≥ 90% efficiency.**

Alternatively:

- {Inlet MOER (61,820 ou.m<sup>3</sup>/s) – Outlet MOER (4,012 ou.m<sup>3</sup>/s)} ÷ Inlet MOER (61,820 ou.m<sup>3</sup>/s)

**Result ≥ 90% efficiency.**

### 3 Summary and Comparison against OIA and Previous Measurements

**Table 9** presents a comparison of odour concentrations and emission rates collected as part of this study and compares these against those assumed by the OIA and collected in 2018, 2020 and 2021. In summary:

- The measured biofilter outlet odour emissions are 78% lower than those assumed by the OIA.
- Peak biofilter outlet odour emissions (based on measured concentrations and maximum flow through the biofilter) are estimated to be 63% lower than those assumed by the OIA.
- The average biofilter outlet odour concentration measured is 183 ou which is 63% lower than the odour concentration assumed by the OIA.
- The average biofilter odour removal efficiency is greater than 95%

**Table 9 Summary of Biofilter results and Comparison against OIA and Previous Measurements**

Year	Average Flow through Biofilter during Sampling (m <sup>3</sup> /hr)	Average Odour Concentration (wet) (ou)	Total Biofilter MOER (wet) (ou.m <sup>3</sup> /s)	Average Biofilter Efficiency	Maximum Flow through Biofilter (m <sup>3</sup> /hr)	Maximum Estimated Biofilter MOER (wet) (ou.m <sup>3</sup> /s)	Change Compared to OIA (%)
OIA		500			390,000	54,168	
2018	204,610	165	9,482	> 95%	390,000	18,073	-67%
2020	189,717	150	8,767	> 95%	402,000	18,576	-66%
2021	193,070	82	4,578	> 95%	402,000	9,533	-82%
<b>2022</b>	<b>233,506</b>	<b>183</b>	<b>11,752</b>	<b>&gt; 95%</b>	<b>402,000</b>	<b>20,231</b>	<b>-63%</b>



# Appendix A:

## Certificates of Analysis

# THE ODOUR UNIT PTY LTD



THE ODOUR  
UNIT

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MASCOT NSW 2020

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Internet: [www.odourunit.com.au](http://www.odourunit.com.au)  
ABN: 53 091 163 061



Accreditation Number:  
14974

## Odour Concentration Measurement Report

The measurement was commissioned by:

Organisation	SLR Consulting	Telephone	+61 437 774 243
Contact	D. Echeverri	Facsimile	--
Sampling Site	Not Disclosed	Email	<a href="mailto:decheverri@slrconsulting.com">decheverri@slrconsulting.com</a>
Sampling Method	Not Disclosed	Sampling Team	SLR

Order details:

Order requested by	D. Echeverri	Order accepted by	A. Schulz
Date of order	15 June 2022	TOU Project #	N1869R
Order number	31583	Project Manager	A. Schulz
Signed by	D. Echeverri	Panel Operator	A. Schulz

Investigated Item	Odour concentration in odour units 'ou', determined by sensory odour concentration measurements, of an odour sample supplied in a sampling bag.
Identification	The odour sample bags were labelled individually. Each label recorded the testing laboratory, sample number, sampling location (or Identification), sampling date and time, dilution ratio (if dilution was used) and whether further chemical analysis was required.
Method	The odour concentration measurements were performed using dynamic olfactometry according to the Australian/New Zealand Standard: Stationary source emissions – Part 3: 'Determination of odour concentration by dynamic olfactometry' (AS/NZS4323.3). The odour perception characteristics of the panel within the presentation series for the samples were analogous to that for butanol calibration. Any deviation from the Australian standard is recorded in the 'Comments' section of this report.
Measuring Range	The measuring range of the olfactometer is $2^2 \leq \chi \leq 2^{18}$ ou. If the measuring range was insufficient the odour samples will have been pre-diluted. The machine is not calibrated beyond dilution setting $2^{17}$ . This is specifically mentioned with the results.
Environment	The measurements were performed in an air- and odour-conditioned room. The room temperature is maintained at $22^\circ\text{C} \pm 3^\circ\text{C}$ .
Measuring Dates	The date of each measurement is specified with the results.
Instrument Used	The olfactometer used during this testing session was: TOU-OLF-004.
Instrumental Precision	The precision of this instrument (expressed as repeatability) for a sensory calibration must be $r \leq 0.477$ in accordance with the AS/NZS 4323.3. $r = 0.280$ Compliance – Yes
Instrumental Accuracy	The accuracy of this instrument for a sensory calibration must be $A \leq 0.217$ in accordance with the AS/NZS 4323.3. $A = 0.076$ Compliance – Yes
Lower Detection Limit (LDL)	The LDL for the olfactometer has been determined to be 16 ou, which is 4 times the lowest dilution setting.
Traceability	The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards. The assessors are individually selected to comply with fixed criteria and are monitored in time to keep within the limits of the standard. The results from the assessors are traceable to primary standards of n-butanol in nitrogen. Note Disclaimers on last page of this document.

**Accredited for compliance with ISO/IEC 17025 - Testing.**  
**This report shall not be reproduced, except in full.**

Date: Monday, 18 July 2022

Panel Roster Number: SYD20220630\_048

**A. Schulz**  
Authorised Signatory

**Odour Sample Measurement Results**  
**Panel Roster Number: SYD20220630\_048**

Sample Location	TOU Sample ID	Sampling Date & Time	Analysis Date & Time	Panel Size	Valid ITEs	Sample Odour Concentration (ou)
#1 6B – 12321	SC22369	29.06.2022 0953 hrs	30.06.2022 1015 hrs	4	8	64
#2 5B – 12322	SC22370	29.06.2022 1008 hrs	30.06.2022 1049 hrs	4	8	181
#3 4B – 12323	SC22371	29.06.2022 1027 hrs	30.06.2022 1122 hrs	4	8	235
#4 3B – 12324	SC22372	29.06.2022 1040 hrs	30.06.2022 1205 hrs	4	8	118
#5 2B – 12325	SC22373	29.06.2022 1058 hrs	30.06.2022 1318 hrs	4	8	91
#6 1B – 12326	SC22374	29.06.2022 1109 hrs	30.06.2022 1345 hrs	4	8	99
#7 Inlet East – 12327	SC22375	29.06.2022 1135 hrs	30.06.2022 1419 hrs	4	8	2,050

**Samples Received in Laboratory** – From: SLR      Date: 29.06.2022      Time: 1630 hrs

**Note:** The following are not covered by the NATA Accreditation issued to The Odour Unit Pty Ltd:

1. The collection of samples by the methods of AS/NZS 4323.4 and the calculation of Specific Odour Emission Rate (SOER).
2. Final results that have been modified by the dilution factors where parties other than The Odour Unit Pty Ltd have performed the dilution of samples.

## Odour Panel Calibration Results

Reference Odorant	Reference Odorant Panel Roster Number	Concentration of Reference gas (ppb)	Panel Target Range for n-butanol (ppb)	Measured Concentration (ou)	Measured Panel Threshold (ppb)	Does this panel calibration measurement comply with AS/NZS 4323.3 (Yes / No)
n-butanol	SYD20220630_048	51,000	$20 \leq \chi \leq 80$	1,024	50	Yes

Comments Odour characters (non-NATA accredited) as determined by odour laboratory panel:

SC22369 dirt, soil  
SC22370 dirt, soil, cabbage  
SC22371 dirt, soil  
SC22372 dirt, soil, cabbage

SC22373 dirt, soil  
SC22374 dirt, soil  
SC22375 fish, oily

Disclaimers

1. Parties, other than The Odour Unit Pty Ltd, responsible for collecting odour samples have advised that they have voluntarily furnished these odour samples, appropriately collected and labelled, to The Odour Unit Pty Ltd for the purpose of odour testing.
2. The collection of odour samples by parties other than The Odour Unit Pty Ltd relinquishes The Odour Unit Pty Ltd from all responsibility for the sample collection and any effects or actions that the results from the test(s) may have.
3. Any comments included in, or attachments to, this Report are not covered by the NATA Accreditation issued to The Odour Unit Pty Ltd.
4. This report shall not be reproduced, except in full, without written approval of The Odour Unit Pty Ltd.

Report Status

Status	Version	Date	Prepared by	Checked by	Change	Reason
Draft	0.1	18.07.2022	A. Schulz	M. Assal	-	-
Final	1.0	18.07.2022	A. Schulz	M. Assal	-	-
Revised	-	-	-	-	-	-

END OF DOCUMENT

# THE ODOUR UNIT PTY LTD



THE ODOUR  
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Accreditation Number:  
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The measurement was commissioned by:

Organisation	SLR Consulting	Telephone	+61 437 774 243
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Sampling Site	Not Disclosed	Email	<a href="mailto:decheverri@slrconsulting.com">decheverri@slrconsulting.com</a>
Sampling Method	Not Disclosed	Sampling Team	SLR

Order details:

Order requested by	D. Echeverri	Order accepted by	A. Schulz
Date of order	15 June 2022	TOU Project #	N1869R
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Signed by	D. Echeverri	Panel Operator	A. Schulz

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Identification	The odour sample bags were labelled individually. Each label recorded the testing laboratory, sample number, sampling location (or Identification), sampling date and time, dilution ratio (if dilution was used) and whether further chemical analysis was required.
Method	The odour concentration measurements were performed using dynamic olfactometry according to the Australian/New Zealand Standard: Stationary source emissions – Part 3: 'Determination of odour concentration by dynamic olfactometry' (AS/NZS4323.3). The odour perception characteristics of the panel within the presentation series for the samples were analogous to that for butanol calibration. Any deviation from the Australian standard is recorded in the 'Comments' section of this report.
Measuring Range	The measuring range of the olfactometer is $2^2 \leq \chi \leq 2^{18}$ ou. If the measuring range was insufficient the odour samples will have been pre-diluted. The machine is not calibrated beyond dilution setting $2^{17}$ . This is specifically mentioned with the results.
Environment	The measurements were performed in an air- and odour-conditioned room. The room temperature is maintained at $22^\circ\text{C} \pm 3^\circ\text{C}$ .
Measuring Dates	The date of each measurement is specified with the results.
Instrument Used	The olfactometer used during this testing session was: TOU-OLF-004.
Instrumental Precision	The precision of this instrument (expressed as repeatability) for a sensory calibration must be $r \leq 0.477$ in accordance with the AS/NZS 4323.3. $r = 0.280$ Compliance – Yes
Instrumental Accuracy	The accuracy of this instrument for a sensory calibration must be $A \leq 0.217$ in accordance with the AS/NZS 4323.3. $A = 0.076$ Compliance – Yes
Lower Detection Limit (LDL)	The LDL for the olfactometer has been determined to be 16 ou, which is 4 times the lowest dilution setting.
Traceability	The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards. The assessors are individually selected to comply with fixed criteria and are monitored in time to keep within the limits of the standard. The results from the assessors are traceable to primary standards of n-butanol in nitrogen. Note Disclaimers on last page of this document.

**Accredited for compliance with ISO/IEC 17025 - Testing.**  
**This report shall not be reproduced, except in full.**

Date: Monday, 18 July 2022

Panel Roster Number: SYD20220701\_049

**A. Schulz**  
Authorised Signatory

**Odour Sample Measurement Results**  
**Panel Roster Number: SYD20220701\_049**

Sample Location	TOU Sample ID	Sampling Date & Time	Analysis Date & Time	Panel Size	Valid ITEs	Sample Odour Concentration (ou)
#1 7B – 12328	SC22376	30.06.2022 0845 hrs	01.07.2022 1001 hrs	4	8	235
#2 7C – 12329	SC22377	30.06.2022 0848 hrs	01.07.2022 1033 hrs	4	8	256
#3 8A – 12330	SC22378	30.06.2022 0918 hrs	01.07.2022 1105 hrs	4	8	215
#4 8C – 12331	SC22379	30.06.2022 0925 hrs	01.07.2022 1135 hrs	4	8	256
#5 9B – 12332	SC22380	30.06.2022 0946 hrs	01.07.2022 1202 hrs	4	8	332

**Samples Received in Laboratory –** From: SLR      Date: 30.06.2022      Time: 1540 hrs

**Note:** The following are not covered by the NATA Accreditation issued to The Odour Unit Pty Ltd:

1. The collection of samples by the methods of AS/NZS 4323.4 and the calculation of Specific Odour Emission Rate (SOER).
2. Final results that have been modified by the dilution factors where parties other than The Odour Unit Pty Ltd have performed the dilution of samples.



**Odour Sample Measurement Results**  
**Panel Roster Number: SYD20220701\_049**

Sample Location	TOU Sample ID	Sampling Date & Time	Analysis Date & Time	Panel Size	Valid ITEs	Sample Odour Concentration (ou)
#6 10A – 12333	SC22381	30.06.2022 1020 hrs	01.07.2022 1312 hrs	4	8	59
#7 10B – 12334	SC22382	30.06.2022 1026 hrs	01.07.2022 1355 hrs	4	8	54
#8 11A – 12335	SC22383	30.06.2022 1049 hrs	01.07.2022 1428 hrs	4	8	118
#9 11C – 12336	SC22384	30.06.2022 1057 hrs	01.07.2022 1506 hrs	4	8	431
#10 Inlet West - 12337	SC22385	30.06.2022 1230 hrs	01.07.2022 1538 hrs	4	8	27,600

**Samples Received in Laboratory** – From: SLR      Date: 30.06.2022      Time: 1540 hrs

**Note:** The following are not covered by the NATA Accreditation issued to The Odour Unit Pty Ltd:

1. The collection of samples by the methods of AS/NZS 4323.4 and the calculation of Specific Odour Emission Rate (SOER).  
Final results that have been modified by the dilution factors where parties other than The Odour Unit Pty Ltd have performed the dilution of samples.

## Odour Panel Calibration Results

Reference Odorant	Reference Odorant Panel Roster Number	Concentration of Reference gas (ppb)	Panel Target Range for n-butanol (ppb)	Measured Concentration (ou)	Measured Panel Threshold (ppb)	Does this panel calibration measurement comply with AS/NZS 4323.3 (Yes / No)
n-butanol	SYD20220701_049	51,000	$20 \leq \chi \leq 80$	724	70	Yes

Comments Odour characters (non-NATA accredited) as determined by odour laboratory panel:

SC22376 dirt, soil  
SC22377 dirt, soil  
SC22378 dirt, soil  
SC22379 dirt, soil, cabbage  
SC22380 dirt, soil

SC22381 dirt, soil  
SC22382 dirt, soil  
SC22383 dirt, soil  
SC22384 dirt, soil, cabbage  
SC22385 grease, ammonia, fermented

Disclaimers

1. Parties, other than The Odour Unit Pty Ltd, responsible for collecting odour samples have advised that they have voluntarily furnished these odour samples, appropriately collected and labelled, to The Odour Unit Pty Ltd for the purpose of odour testing.
2. The collection of odour samples by parties other than The Odour Unit Pty Ltd relinquishes The Odour Unit Pty Ltd from all responsibility for the sample collection and any effects or actions that the results from the test(s) may have.
3. Any comments included in, or attachments to, this Report are not covered by the NATA Accreditation issued to The Odour Unit Pty Ltd.
4. This report shall not be reproduced, except in full, without written approval of The Odour Unit Pty Ltd.

Report Status

Status	Version	Date	Prepared by	Checked by	Change	Reason
Draft	0.1	18.07.2022	A. Schulz	M. Assal	-	-
Final	1.0	18.07.2022	A. Schulz	M. Assal	-	-
Revised	-	-	-	-	-	-

END OF DOCUMENT

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---

## APPENDIX F

# ANNUAL RETURNS AND WASTE SUMMARY

---

## A. Statement of Compliance - Licence Details

**ALL Licence holders must check that the Licence details in Section A are correct.**

If there are changes to any of these details, **you must advise Environment Protection Authority (EPA) and apply as soon as possible for a variation to your Licence or for a Licence transfer.**

Licence variation and transfer application forms are available on the EPA website at:  
<http://www.epa.nsw.gov.au/licensing-and-regulation/licensing> or from regional offices of the EPA, or by contacting by telephone 02 9995 5700.

If you are applying to vary or transfer your Licence, you must still complete and submit this Annual Return.

### A1. Licence holder

**Licence number** : 6229  
**Licence holder** : ELF FARM SUPPLIES PTY LTD  
**Trading name (if applicable)** :  
**ABN** : 71 131 333 830  
**ACN** :  
**Reporting period** : From: 20-5-2021 To: 19-5-2022

### A2. Premises to which Licence Applies (if applicable)

**Common name (if any)** : ELF FARM SUPPLIES PTY LTD  
**Premises** : 108 MULGRAVE ROAD MULGRAVE 2756 NSW

### A3. Activities to which Licence Applies

Composting  
Waste storage

### A4. Other Activities (if applicable)

### A5. Fee-Based Activity Classifications

**Note** that the fee based activity classification is used to calculate the administrative fee.

Fee-based activity	Activity scale	Unit of measure
Composting	> 5,000.00 - 50,000.00	T annual capacity to receive organics
Waste storage - other types of waste	> 0.00	other types of waste stored

## A6. Assessable Pollutants (if applicable)

**Note** that the identification of assessable pollutants is used to calculate the **load-based fee**.  
The following assessable pollutants are identified for the fee-based activity classifications in the licence:

## B. Monitoring and Complaints Summary

### B1. Number of Pollution Complaints

Pollution Complaint Category	Complaints
Air	0
Water	0
Noise	0
Waste	0
Other	0
<b>Total complaints recorded by the licensee during the reporting period</b>	<b>0</b>

### B2. Concentration Monitoring Summary

For each concentration monitoring point identified in your licence, details are displayed below. If concentration monitoring is not required by your licence, **no data** will appear below.

If data was provided from an uploaded file, the file name will be displayed below instead of any data.

**Note** that this does not exclude the need to conduct appropriate concentration monitoring of assessable pollutants as required by load-based licensing (if applicable).

### B3. Volume or Mass Monitoring Summary

For each volume or mass monitoring point identified in your licence, details are displayed below. If volume or mass monitoring is not required by your licence, **no data** will appear below.

If data was provided from an uploaded file, the file name will be displayed below instead of any data.

**Note** that this does not exclude the need to conduct appropriate volume or mass monitoring of assessable pollutants as required by load-based licensing (if applicable).

## C. Statement of Compliance - Licence Conditions

### C1. Compliance with Licence Conditions

Were all conditions of the licence complied with (including monitoring and reporting requirements)?	Yes
---	-----



## D. Statement of Compliance - Load Based Fee Calculation

If you are not required to monitor assessable pollutants by your licence, **no data** will appear below.

If assessable pollutants have been identified on your licence, the following worksheets for each assessable pollutant will determine your load based fee for the licence fee period to which this Annual Return relates.

**Loads of assessable pollutants must be calculated using any of the methods provided in EPA's Load Calculation Protocol for the relevant activity.** A Load Calculation Protocol would have been already sent to you with your licence. If you require additional copies, you can download the Protocol from the EPA's website or you can contact us on telephone 02 9995 5700.

You are required to keep all records used to calculate licence fees for four years after the licence fee was paid or became payable, whichever is the later date.

## E. Statement of Compliance - Requirement to Prepare PIRMP

<b>Have you prepared a Pollution Incident Response Management Plan (PIRMP) as required under section 153A of the Protection of the Environment Operations (POEO) Act 1997?</b>		<b>Yes</b>
Is the PIRMP available at the premises?		<b>Yes</b>
Is the PIRMP available in a prominent position on a publicly accessible website?		<b>Yes</b>
Address of the web page where the PIRMP can be accessed ▼		
<b>www.elffarmsupplies.com.au</b>		
Has the PIRMP been tested?		<b>Yes</b>
The PIRMP was last tested on	<b>1-3-2022</b>	
Has the PIRMP been updated?		<b>No</b>
Number of times the PIRMP was activated in this reporting period?		<b>2</b>
The PIRMP was activated on	<b>Flood preparedness - No pollution incident occurred</b>	

## F. Statement of Compliance - Requirement to Publish Pollution Monitoring Data

<b>Are there any conditions attached to your licence that require pollution monitoring to be undertaken as required under section 66(6) of the Protection of the Environment Operations (POEO) Act 1997?</b>		<b>Yes</b>
Do you operate a website?		<b>Yes</b>
Is the pollution monitoring data published on your website in accordance with the EPA's written requirements for publishing pollution monitoring data?		<b>Yes</b>
Address of the web page where the pollution monitoring data can be accessed ▼		
<b>www.elffarmsupplies.com.au</b>		

## G. Statement of Compliance - Environment Management System and Practices

Do you have an ISO 14001 certified Environmental Management System (EMS) OR any other system that EPA considers is equivalent to the accountability, procedures, documentation and record keeping requirements of an ISO 14001 certified EMS?	Yes
When was the last check (As per ISO 14001) of the EMS completed?	23-9-2021
Were there any non-conformances related to environmental issues identified in the last check of the EMS?	Yes
If there were non-conformances identified, were these non-conformances rectified?	Yes

## H. Signature and Certification

This Annual Return may only be signed by person(s) with legal authority to sign it as set out in following categories: an Individual, a Company, a Public authority or a Local council.

It is an offence under section 66 of the Protection of the Environment Operations Act 1997 to supply any information in this form that is false or misleading in a material respect, or to certify a statement that is false or misleading in a material respect. There is a maximum penalty of \$250,000 for a corporation and \$120,000 for an individual.

I/We

- declare that the information in the Monitoring and Complaints Summary in Section B of this Annual Return application is correct and not false or misleading in a material respect, and
- certify that the information in the Statement and Compliance in sections A, C, D, E, F, G and H and any other pages attached to Section C is correct and not false or misleading in a material respect.

Signature	
Name	
Position	
Date	/ /



# Annual Return

ELF FARM SUPPLIES PTY LTD

Licence 6229

## Declaration

**I declare that the information in the Monitoring and Complaints Summary in section B of this Annual Return is correct and not false or misleading in a material respect, and**

**I certify that the information in the Statement of Compliance in section A,C,D,E,F and G and any pages attached to Section C is correct and not false or misleading in a material respect.**

# Annual Waste Report: Elf Farm Supplies Pty Ltd - 6229

Reporting Period: 2021 - 2022

Status: **Certified**

Printed on: 9/19/2022, 1:11 PM

Due: **29 August 2022**

Report Version: **1**

Printed by: Blake Edwards, Certifier



☐ No waste has been received, processed or removed from site during this period

Waste Received	Metropolitan Levy Area
----------------	------------------------

## Municipal

Received/Source	Waste type	Quantity (tonnes)
	<i>Total Municipal</i>	<b>0.00</b>

## Commercial and Industrial

Received/Source	Waste type	Quantity (tonnes)
<b>6229 - Elf Farm Supplies Pty Ltd</b>	Biosolids or manures	20,792.07
	Vegetation or garden	16,519.34
	<i>Total Commercial and Industrial</i>	<b>37,311.41</b>

## Construction and Demolition

Received/Source	Waste type	Quantity (tonnes)
	<i>Total Construction and Demolition</i>	<b>0.00</b>

## Unknown

Received/Source	Waste type	Quantity (tonnes)
	<i>Total Unknown</i>	<b>0.00</b>

Waste Received	Interstate
----------------	------------

## Municipal

Received/Source	Waste type	Quantity (tonnes)
	<i>Total Municipal</i>	<b>0.00</b>

## Commercial and Industrial

Received/Source	Waste type	Quantity (tonnes)
<b>Other - VIC</b>	Vegetation or garden	6,184.73

# Annual Waste Report: Elf Farm Supplies Pty Ltd - 6229

Reporting Period: 2021 - 2022

Status: **Certified**

Printed on: 9/19/2022, 1:11 PM

Due: **29 August 2022**

Report Version: **1**

Printed by: Blake Edwards, Certifier



Received/Source	Waste type	Quantity (tonnes)
<i>Total Commercial and Industrial</i>		<b>6,184.73</b>

## Construction and Demolition

Received/Source	Waste type	Quantity (tonnes)
<i>Total Construction and Demolition</i>		<b>0.00</b>

## Unknown

Received/Source	Waste type	Quantity (tonnes)
<i>Total Unknown</i>		<b>0.00</b>

# Annual Waste Report: Elf Farm Supplies Pty Ltd - 6229

Reporting Period: 2021 - 2022

Status: **Certified**

Printed on: 9/19/2022, 1:11 PM

Due: 29 August 2022

Report Version: 1

Printed by: Blake Edwards, Certifier



## Deduction - Waste Transported from Site

### Waste transported from site for disposal at a licensed waste facility

Waste type	Quantity
<i>Total</i>	<b>0.00</b>

### Waste transported from site under a Resource Recovery Order

RRO	Waste type	Quantity
<b>*Specific RRO</b>	Composts or mulches	98,319.00
Estimate of waste stream at time of receipt	<input type="checkbox"/> Unknown      MUN: 0.00%      C&I: 100.00%      C&D: 0.00%	
	Liquid waste	2,923.40
Estimate of waste stream at time of receipt	<input type="checkbox"/> Unknown      MUN: 0.00%      C&I: 100.00%      C&D: 0.00%	
<i>Total</i>		<b>101,242.40</b>

### Waste transported from site for lawful recovery

Waste type	Quantity
<i>Total</i>	<b>0.00</b>

# Annual Waste Report: Elf Farm Supplies Pty Ltd - 6229

Reporting Period: 2021 - 2022

Status: **Certified**

Printed on: 9/19/2022, 1:11 PM

Due: **29 August 2022**

Report Version: **1**

Printed by: Blake Edwards, Certifier



## Summary Details

### Details

	Tonnes
Waste Received - Waste received - Metropolitan Levy Area	37,311.41
Waste Received - Waste received - Interstate	6,184.73
	less
Waste transported from site	101,242.40
Net position for reporting period	-57,746.26

### Certification Statement

I Blake Edwards certify that the information contained in the report in respect of waste facility Elf Farm Supplies Pty Ltd located at 108 Mulgrave Road, Mulgrave , 2756 for the reporting period 2021 - 2022 is true and correct.

I further certify that the occupier of the waste facility has kept the necessary records to substantiate the information provided in this report in accordance with the Protection of the Environment Operations (Waste) Regulation 2014.

Please select the option that applies to you:

**I am a person delegated to sign on the occupier's behalf and approved by the EPA in writing to sign this report**





---

## APPENDIX G

### INDEPENDENT BI-ANNUAL AUDIT

---

# INDEPENDENT ENVIRONMENTAL AUDIT

**Prepared for:**

Elf Farm Supplies Pty Ltd  
PO Box 615  
WINDSOR NSW 2756

SLR Ref: 610.18204-R02  
Version No: -v2.0  
September 2021



## PREPARED BY

SLR Consulting Australia Pty Ltd  
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## BASIS OF REPORT

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 Elf Farm Supplies Pty Ltd (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 the Client. 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
610.18204-R02-V1.0	26 April 2021	Sandy Lonergan	Brad Radloff & Varun Marwaha	Sandy Lonergan
610.18204-R02-V2.0	23 September 2021	Sandy Lonergan	Brad Radloff	Sandy Lonergan

---

## EXECUTIVE SUMMARY

SLR Consulting Australia Pty Ltd (SLR) was commissioned by Elf Farm Supplies Pty Ltd (Elf) to undertake an Independent Environmental Audit (IEA) for its Mulgrave Substrate Plant facility, Mulgrave, New South Wales (the Site). The IEA was performed in accordance with Condition 3A of Schedule 5 of Project Approval MP 08-\_0255, first approved on 11 January 2012 and the modified approval (MOD 1) dated 14 March 2016 (Project Approval).

This is the third IEA to be conducted against this Project Approval, the first was conducted at the end of 2016, Report Number 610.16730.00000-R01-v3.0. The 2016 IEA covered the period from 11 January 2012 to 1 March 2017. The second IEA reporting period was from 1 March 2017 to 14 March 2019. This IEA reporting period is from 15 March 2019 to 12 March 2021.

The modification (MOD 1) relates to the Substrate Plant site only as approved under MOD 1 and includes:

- A new odour management system in the form of a biofilter and six ammonia scrubbers;
- An additional six (6) phase 2/3 tunnels; and
- The continued use of fill associated with the biofilter pad.

Elf Farm Supplies had until March 2018 to complete the construction of the MOD1 facilities, Stage 1. At the beginning of 2018, Elf requested an extension of time for completion from the Department of Planning and Environment. This extension was granted on 14 March 2018, with a revised construction completion date of 30 June 2018. Elf met this revised completion date.

This audit was carried out between December 2020 and March 2021, with SLR being supplied information as requested.

The information, results and discussions from the SLR Odour Emissions and Biofilter Control System audit was utilised in the IEA Odour Audit component. The overall conclusion of the audit was the MOD1 project has achieved its objectives of minimising offensive odours.

Two additional modifications have been made to the original consent since MOD 1, modifications 2 (MOD2) and 3 (MOD3). MOD2 was approved on 4 November 2019, with MOD3 on 16 March 2020. It is noted that Elf Farm Supplies has not commenced MOD3 at the time of this audit.

Of the 81 Conditions, 22 (27%) were considered closed as per the findings of the previous IEAs in 2016 and 2019, 17 (21%) were considered not triggered and one (1) was classified as notes for information and not requiring auditing, hence 41 conditions were audited.

Of the 41 auditable conditions, compliance was achieved for 36 (87.8%), non-compliance recorded for 5 conditions (12.2%). All non-compliances were assessed to be of a low risk.

87.8% compliance was a continued improvement on the 70% compliance achieved in 2019 IEA and 61% in the 2016 IEA.

During the process, a high degree of senior management commitment at Elf to minimising the impact on the environment was evident. Elf was commended for their proactive nature on managing environmental matters. During the audit, Elf management appeared receptive and encouraged the auditor to identify opportunities for improvement.

## EXECUTIVE SUMMARY

Elf has also demonstrated continuous environmental improvement by capturing the air emissions from the western pit and transferring the air into the biofilter control system and installing additional balance tanks to assist with water and odour management on-site.

In conclusion, the environmental performance of the site has improved since the completion of construction and commencement of the odour control system.

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# 1 Introduction

## 1.1 Background

SLR Consulting Australia Pty Ltd (SLR) was commissioned by Elf Farm Supplies Pty Ltd (Elf) to undertake an Independent Environmental Audit (IEA) for its Mulgrave Substrate Plant facility, Mulgrave, New South Wales (the Site). The IEA was performed in accordance with Condition 3A of Schedule 5 of Project Approval MP 08-0255, first approved on 11 January 2012 (Project Approval).

This is the third IEA to be conducted against this Project Approval, the first was conducted at the end of 2016, Report Number 610.16730.00000-R01-v3.0. The 2016 IEA covered the period from 11 January 2012 to 1 March 2017. The second IEA reporting period was from 1 March 2017 to 14 March 2019. This IEA reporting period is from 15 March 2019 to 12 March 2021.

Elf Farm Supplies applied for a modification to project approval (MOD1) and this was approved on 14 March 2016. MOD 1 related to the Substrate Plant site only and included:

- A new odour management system in the form of a biofilter and six ammonia scrubbers;
- An additional six (6) phase 2/3 tunnels; and
- The continued use of fill associated with the biofilter pad.

Elf Farm Supplies had until March 2018 to complete the construction of the MOD1 facilities, Stage 1. At the beginning of 2018, Elf requested an extension of time for completion from the Department of Planning and Environment. This extension was granted on 14 March 2018, with a revised construction completion date of 30 June 2018. Elf met this revised completion date.

It is noted that Elf Farm Supplies has had two further modification applications approved since MOD1, being MOD2 and MOD3.

MOD2 related to a Section 75W application seeking to the following modifications to the Concept Approval:

- Increase in the building floor area to 88, 178m<sup>2</sup> and
- Modification to ancillary works including access road, parking, landscaping, stormwater and dam design to suit revised building footprint.

MOD2 was approved on 4 November 2019.

MOD3 included an extension of the straw bale storage area and associated works, amended stormwater management system and western tree corridor. This modification was approved on 16 March 2020. It is noted that Elf Farm Supplies has not commenced MOD3 at the time of this audit.

---

## 1.2 Audit Team

The audit team comprised of Sandy Lonergan (Lead Auditor, certified by SAI Global) and Varun Marwaha.

Ms Lonergan has over 25 years auditing experience, has been a third party certification auditor for NCSI and has conducted numerous independent compliance audits for the Commonwealth Government, Planning Departments, and Environment Protection Authorities or equivalent in New South Wales and Queensland.

Varun Marwaha has over 10 years of environmental and processing experience. Mr Marwaha has acquired broad environmental experience including air quality and odour, impact assessments, emission inventories (including National Pollutant Inventory), air quality dispersion modelling (including Ausplume, CALPUFF and CAL3QHCR), air quality monitoring (including odour), meteorological monitoring, meteorological modelling (The Air Pollution Model [TAPM] & CALMET), greenhouse gas assessments and overall project management. He has conducted numerous environmental audits for a range of industries throughout Australia.

## 1.3 Audit Objectives

The audit objectives were:

1. To carry out the audit in accordance with Condition 3A of Schedule 5 of Project Approval 08\_0255 and subsequent modifications; and
2. To carry out the audit generally in accordance with the Department of Planning and Environment's document titled *Independent Audit Post Approval Requirements*, June 2018.

## 1.4 Audit Period

This audit period was from 15 March 2019 to 12 March 2021.

## 1.5 Audit Scope

This IEA and subsequent report were prepared pursuant to Condition 3A of Schedule 5 of Project Approval MP 08\_0255. **Table 1** lists the requirements of this condition and indicates where each has been addressed in this IEA report.

**Table 1 Audit Conditions and Where Each Requirement is Addressed in this Report**

Condition	Description of Condition	Where Addressed in this Report
3A	By 31 March 2021 and every two years thereafter, unless otherwise agreed by the Secretary, the Proponent must commission and pay the cost of an Independent Environmental Audit of the Project. This audit must:	This Audit Report
3A (a)	Be conducted by suitably qualified, experienced and independent team of experts (including and odour expert) whose appointment has been endorsed by the Secretary;	Appendix E
3A (b)	Include consultation with the relevant agencies;	Section 3.8
3A (c)	Include a full odour audit of the Project, taking into consideration of the relevant technical guidelines and any odour complaints made since the previous audit;	Appendix C
3A (d)	Assess the environmental performance of the project and assess whether it is complying with the relevant requirements in this approval and any other licenses and approvals that apply to the project (including any assessment, plan or program required under these approvals);	Sections 3.2, 3.3, 3.4, 3.7 and Appendix A.
3A (e)	Review the adequacy of strategies, plans or programs required under these approvals and if appropriate;	Section 3.6
3A (f)	Recommend measures or actions to improve the environmental performance of the project, and or any assessment, plan or program required under these approvals.	Section 4
	Within six (6) weeks of the completion of this audit, or as otherwise agreed by the Secretary, the Proponent must submit a copy of the audit report to the Secretary, together with its response to any recommendation contained in the audit report.	This Audit report

## 1.6 Report Structure

This report was structured as follows:

- Section 1 provides an introduction, background, description, scope of the audit, limitations and provides a guide to the structure of the report;
- Section 2 outlines the audit methodology. This includes the auditor approval, scope development, compliance evaluation and assessment criteria sections;
- Section 3 summarises the audit findings including;
  - Approval and documentation list;
  - Compliance performance;
  - Summary of Agency Notices, Orders or Penalty Notices;
  - Non-compliances;
  - Previous audit recommendations;
  - Review of plans including sub-plans;
  - Environmental performance;

- Consultation outcomes;
  - Complaints summary;
  - Incidents;
  - Actual versus predicted impacts;
  - Site inspections;
  - Site interviews; and
  - Key strengths.
- Section 4 outlines the recommendations from the audit for the non-compliances and opportunities for improvement; and
  - Section 5 is the conclusion;
  - Appendix A contains the complete list of all the conditions in the DA and details the audit findings;
  - Appendix B contains a selection of photographs from the site visit;
  - Appendix C contains the Odour Audit report;
  - Appendix D contains the completed Independent Audit Certification forms; and
  - Appendix E contains the audit team CVs and associated approval letter from the Department of Planning & Environment.

## 1.7 Limitations

This report has been prepared for Elf Farm Supplies (Elf) to fulfil the requirements of the IEA as specified in the Project Approval. The IEA only pertains to the Substrate Plant.

The scope of the audit, and subsequent report was limited and should not be used for any purpose other than that described above.

The following should be taken into account when reading and using this report:

- 1 One site visit was undertaken during this audit to familiarise the auditor with the site layout, site conditions and natural environment. Whilst the auditor requested to be shown all features of the sites impacted (environmentally) by the operations, the auditors have relied on information provided by Elf representatives during these site visits, including the selection of the areas of the site for the site inspections; and
- 2 Elf provided (at their sole discretion) all documentation that has been accessible to the auditors. The auditors relied on the information and documentation provided and Elf to provide all relevant and pertinent information. It should be noted that the range of documentation provided may not have included all relevant environmental records held. The auditors asked to receive all relevant documentation. The auditors have not had the opportunity to verify any of the information provided nor have they had the opportunity to consult with any party other than Elf's nominated representatives during this audit.



---

## 2 Audit Methodology

### 2.1 Auditor Approval

Ms Lonergan and Mr Varwaha were approved as the auditors by the Department of Planning and Environment (DPE) on the 11 January 2021. Refer to **Appendix E** for the auditors CV's and letter of approval from the DPE.

### 2.2 Scope Development

The auditors consulted with the following agencies and other relevant stakeholders to obtain their input into the Scope of the Audit:

- Environment Protection Authority (EPA); and
- Hawkesbury Local Council.

Any correspondence received from the stakeholders is contained in **Section 3.8**.

### 2.3 Compliance Evaluation

The auditor used the following methodologies to gather evidence and evaluate compliance, where applicable:

- A desktop review of records requested;
- Review of records on-site;
- Interviews with key personnel;
- Photographs from site visit/inspection; and
- Observations from the site visit/inspection.

The site visit was undertaken on the 10 February 2021 and involved attendance at the site induction, a site walk-around, taking photographs and interviews with key staff.

Information obtained and statements recorded during the interviews conducted whilst on site were directly recorded as evidence (see **Appendices A, B and C**). The auditors also used the interviews as an opportunity to gain an appreciation of the extent to which the systems in place to manage environmental impacts from site operations were understood and implemented. Refer to **Section 3.13** for a list of the personnel interviewed.

## 2.4 Assessment Criteria

SLR adopted the compliance status descriptors outlined in Section 3.8 and reproduced below in **Table 2**, in the NSW Government, *Independent Audit Post Approval Requirements*, June 2018.

**Table 2 Compliance Status Descriptors**

Assessment	Criteria
Compliant	Where the auditor has collected sufficient verifiable evidence to demonstrate that <b>all</b> elements of the requirement have been complied with within the scope of the audit.
Non-compliant	Where the auditor has determined that one or more specific elements of the conditions or requirements have not been complied with within the scope of the audit.
Not triggered	A requirement has an activation or timing trigger that has not been met at the time when the audit is undertaken, therefore an assessment of compliance is not relevant.

The following has been extracted from Section 3.8 from the *Independent Audit Post Approval Requirements*.

*The terms partial compliance, partial non-compliance or administrative non-compliance or other similar terms must not be used.*

*In addition to the compliance status descriptors, the auditors may make such observations and notes, including identifying any opportunities for improvement, as they see fit in relation to any compliance requirement or any other aspect of the development.*

Another assessment criterion was added to this IEA, as this is the third IEA and hence the Department advised during telephone conversation on the 19 May 2017 that conditions only relevant to the current audit period are to be audited. For example, if all construction has been completed and facility in operational phase, all construction conditions are to be treated as closed.

## 3 Audit Findings

### 3.1 Approval and Document List

The following key documents were reviewed during the audit:

- Project Approval 08\_0255 granted by the then Minister for Planning and Infrastructure for modification 3 (MOD 3);
- Project Approval 08\_0255 updated Condition of Approval including MOD 3;
- Environment Protection Licence (EPL) No. 6229;
- Production data for the reporting period;
- Elf Farm Supplies Mushroom Substrata Facility – Annual Environmental Management Review, September 27, 2019;
- Elf Farm Supplies Mushroom Substrata Facility – Annual Environmental Management Review, September 28, 2019;
- Elf Farm Supplies Mushroom Substrata Plant, Mulgrave, Water Management Plan, Issue 03, June 2020;
- Substrata Plant Mulgrave, Operational Noise Management Plan, prepared by Acoustic Consulting Engineers Pty Ltd, Report No: 160787-01-02R-DD Revo02, dated 17 January 2019;
- Elf Farm Supplies training needs analysis and training records;
- Environmental incident reports prepared by Elf Farm Supplies;
- SLR Consulting Australia Pty Ltd, *Odour Emissions & Biofilter Control System Audit, Elf Farm Supplies, Condition 5(e)*, March 2019. SLR Ref: 610.18411-R01-v5.0;
- Todoroski Air Sciences, *Field Odour Survey Elf Farm Supplies*, 26 May 2020, Job Number 18090878;
- SLR Consulting Australia Pty Ltd, *Elf Farm Supplies Biofilter Testing*, September 2020. SLR Ref: 610.30048-R01;
- Letter dated 30 June 2019 from the EPA to Elf Farm Supplies relating to the risk level determined for your licence;
- Letter dated 9 June 2020 from the EPA to Elf Farm Supplies relating to the risk level determined for your licence;
- Todoroski Air Sciences, *Opdour Management Plan Elf Farm Supplies Substrate Facility*, Prepared for Elf Farm Supplies Pty Ltd, 8 February 2018;
- The Odour Unit, *Elf Farm Supplies Pty Ltd, Mushroom Substrate Plant – Modification to Approved Expansion, Odour Impact Assessment, Mulgrave, NSW*. Final Report. 08.01.2015;
- *Air Quality Assessment, Expansion of Substrate Facility, Mulgrave, Elf Farm Supplies*, 9 December 2010, PAE Holmes;
- EPA Annual Returns for this reporting period;
- EPA Notice of Variation to Licence No. 6229 dated 17 December 2020; and
- Various emails and letter correspondence between Elf Farm Supplies and Department of Planning and Environment.

## 3.2 Compliance Performance

### 3.2.1 Development Consent

The Development Consent Conditions for the site were audited as per the requirements of Condition 3A.

**Table 3** shows a summary of the findings of this audit in relation to the Development Consent Conditions.

**Table 3 Summary Table of Compliance with MP 08\_0255**

Section	Total No. of Conditions	Conditions Audited	Compliance	Non-Compliance	Not Triggered	Closed	Note
1 (Sch 2)	19	12	8	0	4	6	1
2 (Sch 3)	52	37	24	1	12	15	0
3 (Sch 5)	10	9	4	4	1	1	0
Total	81	58	36	5	17	22	1

### 3.2.2 EPL 6229

The Site operates under EPL No. 6229. During this IEA period, the EPL was varied as per the letter dated 17 December 2020. The following variations were made to the licence:

- Condition R4.1 has been varied to require “The Licensee must retain records detailing irrigation of waste water from the dam at the premises for four years. These records shall be made available to EPA officers upon request.”;
- Condition O4.2 has been varied to require “The licensee must ensure that the area in which the pre-wet is conducted is fully enclosed within a building which is under negative pressure and ventilated through the Bio-filter.”; and
- Condition O4.7 has been removed.

In general, the site was generally operating in compliance with the EPL conditions during the IEA reporting period. There are no monitoring requirements specified under the EPL.

Elf Farm Supplies has submitted two EPA Annual Returns during this IEA reporting period:

1. Reporting period – 20-05-2018 to 19-05-2019; and
2. Reporting period – 20-05-2019 to 19-05-2020.

For the 2018-2019 reporting period, 10 odour complaints were recorded, however during this period the construction of the MOD 1 project had not been complete and the Pollution Incident Response Management Plan (PIRMP) had not been tested during the period as required by the EPA. For the 2019-2020 reporting period, zero odour complaints were recorded and the PIRMP was tested. Both returns were submitted on-time.

A review of the EPA website (Public Register) showed no non-compliances recorded against Elf for the two last reporting periods.

As identified in the previous two IEA reports and still current for this IEA, SLR identified the following additional non-compliance, not already identified in this audit report:

- E1.4 f) Odour Complaint Report – Condition f) requires the oxygen content of the compost in the pre-wet processing phase to be recorded from one hour preceding the odour incident until the time the incident is reported to have ceased. This has not been occurring and is not possible as complainants do not usually advise of stop times for odour complaints. In the previous IEA it was recommended that discussions be held with the EPA to remove this condition. SLR has been advised this did not occur.

SLR also reviewed two letters from the EPA received by Elf Farm Supplies on 30 June 2019 and 9 June 2020, which specified the Environmental Management Category (EMC) and Risk Level Determination.

The EMC is determined on an annual basis for each licence based on the licensee's environmental management performance during the previous licence reporting periods in accordance with the method set out in the Environmental Management Calculation Protocol. The EMC is used to calculate the licence administrative fee and determine the risk level for the licence.

In 2019 the EMC was C and overall environmental risk level 2, in 2020 the EMC dropped to category A and overall environmental risk level of 1. This is the lowest risk level possible.

### 3.2.3 Odour Audit Findings

SLR completed an odour audit as per the requirements of the Condition. Details of the Odour Audit are located in **Appendix C**.

A summary of the findings of the odour audit are as follows:

- Based on the site observations, review of the odour monitoring data, review of the independent odour audit findings, annual biofilter testing, Field Odour Surveys completed by Todoroski Air Sciences, odour complaints, odour impact assessment report and the EPA letters SLR deems the MOD1 to be achieving the desired objective to minimise odour emissions from the site and achieving the predictions in the Odour Impact Assessment; and
- The SLR IEA audit team concurs with the SLR odour audit team and Todoroski Air Sciences and would make the same recommendations.

### 3.2.4 Water Management and Stormwater System Assessment

The letter received by Elf Farm Supplies dated 11 January 2021 from the Department of Planning, Industry & Environment stated; *The Department considers that given the number of incidents in the previous 2 years relating to the emergency use of the Western Dam and spill incidents, the 2021 audit team should include an appropriate expert to assess compliance with the site's water management and stormwater system with the relevant conditions of Consent.*

Discussions were held between SLR, Elf Farm Supplies and Elf's water and stormwater management consultant. Elf Farm Supplies did not believe that a third party review was required at this point in time. Justification of this position was provided to SLR for inclusion in this IEA:

1. Condition 17B of Schedule 3 of the project approval requires that the farm dam not be used to receive process water. Condition 17C permits that the farm dam may be used during an emergency, including a high rainfall event or plant breakdown. Elf is complying with both of these conditions as observed by the environmental auditor.
2. Conditions 17B and 17C are reflected in the approved Water Management Plan for the facility:

*“The water recycle pit has been designed with sufficient capacity to retain the first flush of rainfall runoff from operational surfaces of the site. The pit capacity was designed following requirements specified at the time by the EPA. Additional balance tanks have been installed to reduce the potential for emergency use of the farm dam.*

*Should the water recycle pit ever become full, water is pumped to the balance tanks and when full, an inlet diverter redirects any subsequent runoff to the farm dam immediately west of the plant. This farm dam is configured so as not to receive water from any source other than diverted water recycle pit and /or biofilter drainage and direct rainfall. Water collecting in the farm dam is disposed of by paddock irrigation....*

*Whenever rainfall results in surplus water being present in the water recycle pit and balance tanks, it is preferentially used for operational purposes.”*

3. During 2019 and 2020 the reason for emergency use of the farm dam was for high rainfall events. No failure of operations resulted in the emergency use of the farm dam from the overflow of the main recycle pit during this reporting period.

The western dam was used twice in 2019 accordance with Elf Farm Supplies Water Management Plan being on the 19 March and 18 September. The dam was used four times in 2020, twice in February on the 10<sup>th</sup> and 14<sup>th</sup> of the month, which was around the same time as the Hawkesbury floods, and then again on 22 May and 20 October.

4. Review of the previous 5 years of data showed the use of the farm dam due to heavy rainfall or plant failure (one event) as follows:
  - 2018 – 2 times;
  - 2017 – 2 times; and
  - 2016 – 5 times.
5. The water recycle pit was designed in consultation with EPA to reduce nutrient loads entering the farm dam. Bale wetting is also now undertaken inside a building, further reducing the operation nutrient load to external areas.
6. The EPA have removed the requirement to notify before irrigation of effluent from the farm dam from the site EPL. The EPA have also reduced the environmental risk rating for the entire operations indicating ongoing confidence in regard to the site.
7. The Elf Farm Supplies Water Management Plan outlined that the dam is used as an overflow from the main water recycle pit, refer to Figure 2, Substrate Plant Operational Water Flow Chart.
8. 2 balance tanks (50,000 litres each in capacity) were installed to increase rainfall/stormwater storage capacity of the recycle pit to compensate for the stormwater generated on site during rainfall events caused by the removal of the roof on a now unused building. The roof was removed for safety reasons.
9. A roof has been installed on the main recycle pit to eliminate direct rainfall.
10. Elf Farm Supplies now continuously monitor weather conditions and when the relevant Bureau of Meteorology predicted a La Nino summer for 2020-2021, Elf Farm Supplies took proactive measures to further increase stormwater holding capacity on site with an additional of the two balance tanks (50,000 litres each in capacity) in October 2020.
11. Future works currently being discussed with DOPE, will include additional roofing for capturing and diverting stormwater to further eliminate ingress into the recycle pit and potentially removing the dam and replacing with a capture tank, eliminating further odours from the site.

### 3.3 Summary of Agency Notices, Orders or Penalty Notices

No order, nor penalty notices were issued to Elf Farm Supplies during the audit period.

### 3.4 Non-compliances

**Table 4** summarises the non-compliances identified, with relevant comments. Note in some instances the entire condition has not been documented in the table and is included at the end of these conditions. Refer to **Appendix A** for the condition in its entirety.



**Table 4 Summary of Non-Compliances**

Schedule	Condition	Requirement (Summary)	Comment
3	23	The Proponent must establish a fenced, 35 metre wide riparian corridor along the length of South Creek within 12 months of commencement of operation of Stage 1. The Proponent must consult with the Hawkesbury-Nepean Catchment Management Authority on Methods and species selection to ensure that best practice techniques are used at the site, to the satisfaction of the Secretary.	<p>The riparian corridor has now been established, however it was recorded as a non-compliance as it was not completed within the required time-frame.</p> <p>Action: No further action required.</p>
5	1	The Proponent must prepare and implement an Environmental Management Strategy for the Project to the satisfaction of the Secretary. The Strategy must: .....	<p>There are many sections of the Strategy that require updating to reflect MOD1 completion. For example but not limited to, Sections 2.3, 4.2, 4.3, 5.2.2, 5.3, 7.2, 7.3, 8.1.3, 8.2 and 8.3. Figures 2 and 3 and the Appendices all contain many out of date documents, for example the EPL. Many of the Plans in the appendices are being used but have not been included in the Strategy.</p> <p>This is considered an administrative non-compliance as not having the Strategy up-to-date has not resulted in an environmental incidents.</p> <p>Action: Elf to update the Strategy.</p>
5	4	<p>Within three months:</p> <p>(a) the submission of an incident report under condition 5 of schedule 5;</p> <p>(b) the submission of an annual review condition 3 of schedule 5, and</p> <p>(c) the submission of an independent environmental audit under condition 3A of Schedule 5; and</p> <p>(d) the approval of any modification of the Conditions of this approval,</p> <p>The strategies, plans and programs required under this approval must be reviewed.</p>	<p>The Pollution Incident Response Management Plan is currently in a revised DRAFT format and has not been updated within 3 months of the diesel spill incident or MOD3 which occurred 12 and 6 months ago respectively</p> <p>The auditor notes that some plans are required to be updated in relation to MOD 3 activities, however as MOD 3 has not commenced these are not relevant to this condition.</p> <p>Action: Elf to ensure that PIRMP is reviewed in a more timely manner after any incident (within 3 months).</p>

Schedule	Condition	Requirement (Summary)	Comment
5	7	The approved Strategy (as revised and approved by the Secretary from time to time), must be implemented for the life of the Project as soon as written endorsement by the Secretary is received.	Implementation of the Community Consultation Strategy last occurred in March 2018 which precedes the completion of construction works in June 2018. There has also been no media release for construction being completed as specified in the Strategy.  Action: Elf to update the Community as per the strategy regarding the completion of the construction works.
5	8	Within three months from the date of the approval of MOD 1, the Proponent must make the following information (unless commercially sensitive) freely available on a publicly accessible website, as it is progressively required under the approval ....	The website has not been updated with the revised plans and programs, for example the Environmental Management Strategy was sighted main strategy compliance (Jan 17), however the appendices had not been updated and dated May 2012, the updated Odour Management Plan, Water Management Plan and Operational Noise Management Plan were all missing.  It is noted that Elf updated the website on 8 March 2019 with the updated management plans, no further action required for the plans.  Construction updates ceased in March 2018 however, construction was completed in June 2018 but no update has occurred.  Action: Elf to update the Community as per the strategy regarding the completion of the construction works.

### 3.5 Previous Audit Recommendations

**Table 5** summarises the recommendations made in the 2016 IEA and provides an updated on whether ELF implemented the recommendations, if it is still outstanding (ongoing), or Elf decided not to proceed.

**Table 5 2016 IEA Recommendations**

2016 Recommendation	Update	Status
Hold discussions with the Department of Planning and seek amendment to the Conditions of Approval and remove the necessary to have formal Environmental Management Strategy and have it replaced with a modified environmental management system.	Elf held discussions on 30 November 2016 with the Department to confirm that using an EMS framework to address all the elements of the condition would be acceptable.  Elf anticipated completion date was 21 April 2017. This was not achieved and still on-going. Closed as Elf is not pursuing this.	Closed
SLR recommends that a formal document control procedure and register be developed for all environmental (and possibly quality and health and safety) procedures, forms, guidelines, plans etc for the site.	The existing safety document control procedure and register was to be adapted.  Elf anticipated completion date was 20 March 2017. This was not achieved and still on-going.	On-going
CEMP to be reviewed and updated to include Statement of Commitments which have not been incorporated.	Elf agreed to this recommendation originally. However not implemented prior to construction being completed and hence CEMP no longer required.	Not implemented and closed
Update the Environmental Site Inspection Checklists to include requirements from Schedule 3, Condition 8. (a) all areas are maintained in a condition to minimise the emission of wind-blown or traffic-generated dust	Recommendation implemented. Revised Environmental Site Inspection Checklist sighted.	Implemented and closed
Update Environmental Site Inspection Checklists to reflect key actions/measures outlined in the CEMP or alternatively development CEMP Audit Checklist which is more detailed and undertaken once a month.	Recommendation implemented. Revised Environmental Site Inspection Checklist sighted.	Implemented and closed
Complaints procedure - update the Complaints procedure to include documenting corrective action taken and root cause analysis where applicable (Section 6.4.3 of the procedure).	Decision was made not to implement this recommendation.	Not implemented and closed
The Complaints Line form to be updated to include other potential complaints (dust, lighting, other) and section for corrective action to be completed/taken if complaint is legit and Elf is the source. Alternatively, this could be documented/incorporated into the Non-compliance Form.	Recommendation implemented. Revised Complaints Line form sighted.	Implemented and closed
Update Section 7.3 of the <i>Mushroom Substrate Plant, Mulgrave, Environmental Management Strategy, Report 134R2, May 2012</i> , which outlines noise monitoring requirements during operational phase. The table in Section 7.3 is now outdated as noise criteria has changed at several locations and this section of the Strategy needs to be updated to reflect Condition 19 limits.	Recommendation implemented. Revised Environmental Management Strategy, dated 16 January 2017 sighted. However, Section 7.3 does not have the current noise levels specified.	Open as information incorrect.

2016 Recommendation	Update	Status
When the Operational Noise Management Plan Substrate Plant Mulgrave, 42.6411.ONMP_Mul:CFCDS, Rev 2 is updated as per Condition 22B it is recommended that a section on the noise mitigation measures that will be implemented during the operation of the facility once the Project (MOD 1) is completed to minimise noise from the operation.	Recommendation implemented. Revised Operational Noise Management Plan, dated 26 June 2018, sighted.	Implemented and closed
Recommend all emergency scenarios in the Pollution Incident Response Management Plan (PIRMP) are tested at least annually.	Elf incorporated into the projects compliance tracking and tasks management log. Evidence sighted of annual test.	Implemented and closed
Update Elf's NON-COMPLIANCE FORM to include: <ul style="list-style-type: none"> <li>Name of person writing up non-compliance;</li> <li>Unique non-compliance referencing number (as per incident reporting);</li> <li>Name of person responsible for implementing corrective action and proposed due date;</li> <li>A "root cause analysis" section; and</li> <li>A "Closed Out" section, where person has reviewed that all corrective actions were implemented and determines if the action were successful (need to document evidence). Need name and date of person who has signed off that the non-compliance had been adequately addressed.</li> </ul>	Implemented.	Implemented and closed
SLR recommends a non-compliance log (simply excel spreadsheet) to be developed to record non-compliances. For example: Incident No. Date. Nature of Non-compliance.	Implemented.	Implemented and closed

**Table 6 2019 IEA Recommendations**

2019 Recommendation	Update	Status
Ensure that the critical spares for machinery and equipment relating to the new facility is obtained from Europe as soon as possible.	Elf Farm Supplies advised this occurred and now considered closed.	Closed
Elf to implement a system to ensure compliance with meeting reporting requirements.	Elf has a projects compliance tracking and tasks management log.	Closed
Elf to specify what is considered to be a "high rainfall" event and document that in the Water Management Plan and ensure the Department is notified accordingly.	Elf advised no longer applicable as additional balance tanks have been installed.	Closed
Elf to update the Community as per the Community Consultation strategy regarding the completion of the construction works.	Not completed.	Closed
Elf to update their website as per the requirements of Schedule 5, Condition 8.	Elf agreed with recommendation and uploaded documents.	Closed
Environmental Management Strategy, Section 7.3, needs to be updated to reflect the current criteria.	Elf agreed with recommendation but has not updated the Strategy as yet	On-going
Environmental Management Strategy including appendices need to be reviewed and updated	Elf agreed with recommendation but has not updated the Strategy as yet	On-going
Update the Water Management Plan to include the two additional 100,000 litres tanks recently installed to assist with managing the site water and wastewater.	Completed when Water Management Plan amended for MOD 3 application.	Completed
Update the Odour Management Plan to include the covering and extraction of air from the western pit to the biofilter control system and the additional tanks.	Still to be completed.	On-going

## 3.6 Review of Plans, Sub-Plans

During the audit, the auditor sighted and reviewed a number of Annual Environmental Management Reports (AEMRs), environmental management plans including but not limited to the Operational Noise Management Plan, Water Management Plan, Odour Management Plan and the Environmental Management Strategy for the Site. It is clear that the plans and Strategy have evolved over a number of years in line with the Conditions of Approval granted by the Department of Planning in 2012 and then MOD 1. The Environmental Strategy is out of date and needs to be updated as identified in Section 3.4. Refer to Section 4.2 for opportunities for improvement.

It was noted that in June 2020, Perram & Partners reviewed all plans and strategies in relation to the facility and this review was documented and communicated to the Department of Planning, Industry and Environment in a letter dated 19 June 2020.

## 3.7 Environmental Performance

### 3.7.1 Summary

A review was undertaken of the following information:

- Monitoring reports
- Two Annual Environmental Management Reports (AEMR) prepared for the site by Elf covering the periods:
  - September 2018 to August 2019; and
  - September 2019 to August 2020.
- EPA correspondence
- Complaints Register

Overall, the environmental performance of the facility has improved since the last IEA gauged on the number of non-compliances identified in the IEA and the investments in new infrastructure over the 2 year period. The number of complaints has significantly reduced (as outlined in Section 4.3.6 Tables 11 and 12) and this is supported by the annual odour monitoring of the biofilter and odour field surveys conducted in 2019 and 2020 (Odour Audit in Section 4.3). This improvement is also reflected in the EPA EMC and overall environmental risk which is now at the lowest (best) level possible (Refer back to Section 6.2).

All EPL and Project Approval monitoring required in 2019 and 2020 (odour monitoring) has been carried out and compliance achieved.

During this IEA reporting period a further environmental improvement was the replacement of high power usage lighting in various areas of the site with low power LED lighting.

In response to the AMER submitted to the Department covering the reporting period of September 2017 to August 2018, the Department requested additional information be incorporated into future reports. This was specified in a letter dated 26 October 2018. **Table 7** summarises the additional requirements and whether the additional requirements were incorporated into the AMERs for 2019 and 2020.

**Table 7 Department of Planning and Environmental – Additional Requirements for AMER**

Planning Requirement	2019 AMER Compliance	2020 AMER Compliance
A production and dispatch summary for the Substrata Plant consistent with Table 1 in Attachment 1	Yes – Table B – Section 5	Yes – Table C – Section 5
Brief summaries on the effectiveness of the management plans applicable to the substrate plant. Please include details of any improvement measures that Elf Farm proposes to undertake with respect to its management plans in the next reporting period	Yes – Sections 4.3 to 4.8	Yes – Sections 4.3 to 4.9
A title block at the beginning of the annual review that is consistent with Table 2 in Attachment 2	Yes – page i	Yes – Page i
Contact details of key personnel who are responsible for the environmental management of the site in the introduction section of the report.	Yes – Section 2 Introduction	Yes – Section 2 – Introduction
Maps and aerial photography of the main body of the annual review showing the operational disturbance footprint and offset areas	No – no map or aerial photograph in main body of the report. It is noted that the Project Approval conditions in Appendix A has some site layouts as an appendix	No – no map or aerial photograph in main body of the report. It is noted that the Project Approval conditions in Appendix A has some site layouts as an appendix
Summaries table assessing the compliance status of all conditions of the approval as an attachment to annual review and not in the main body of the report. The summaries table should be consistent with the Attachment A – Compliance Table Example in Compliance Reporting Post Approval Requirements.	Yes	Yes
A copy of this letter as an attachment to the main report	Yes – Appendix C	No

### 3.7.2 Noise

As outlined in Section 3.2.2, the site operates under EPL 6229, under the EPL there is no specific noise monitoring requirements.

Section 6.1 Noise Monitoring of the approved Operational Noise Management Plan states:

*Schedule 3 – Condition 22 requires noise monitoring to evaluate noise compliance. Accordingly this ONMP recommends that noise monitoring be incorporated into the site Environmental Management Plan.*

*The Atkins Acoustics' report recommends that within six (6) months of completion of each stage of the proposed upgrade of the substrata plant, noise monitoring be conducted at two (2) reference locations consistent with the closest residential receivers identified in Table 1, specifically Chisholm Place to the west and Railway Road/126 Mulgrave Road to the south-east. Where access to the identified receiver is not practical, alternative locations representative of the subject receiver/s could be considered.*

*Where practical, near-field measurements of fixed and mobile plant and equipment would also be conducted within six (6) months of completion of each stage of the proposed upgrade or when there is significant changes to site plant, to ensure compliance.*

Noise measurements were undertaken at the end of the previous IEA period and it noise levels were deemed to be complying with Condition of Approval noise limits. As no other stage of the proposed upgrade of the substrata plant has occurred in this reporting period and no noise complaints received, there has been no noise monitoring conducted during this period.

### **3.7.3 Water and Stormwater Management (including irrigation management)**

As outlined in Section 3.2.4, Elf Farm Supplies continues to operate in accordance with the facility's Water Management Plan. Irrigation has continued to occur as per Section 4.5.2 of the Plan.

The EPA has removed the requirement to notify before irrigation of effluent from the farm dam from the site EPL. The EPA have also reduced the environmental risk rating for the entire operations indicating ongoing confidence in regard to the site.

No incidents of water pollution have been recorded in this reporting period.

### **3.7.4 Flooding**

Part of the site is located on a flood plain (as shown in Figure 1 of the Water Management Plan). The plant was constructed on a filled platform raised to 16 metres AHD to provide protection against most floods. The 100 Year ARI flood level is stated by Hawkesbury City Council to be 17.3 metres AHD. The plant can continue to operate during times of minor flooding, when the levels remain below the bench height of the plant. For example, this occurred during the Hawkesbury floods in the first quarter of 2020. If there is a major flood the facility implements the procedures outlined in the Environmental Management Strategy.

### **3.7.5 Erosion and Sediment Controls**

Erosion and sediment controls were required to be specified in the Construction Management Plan for the MOD1. This project is now complete. The Water Management Plan outlines how stormwater is managed on site to minimise potential for erosion to occur. During the audit, the irrigation area had no bare patches and there was no evidence of erosion issues.

### **3.7.6 Hazards – Fuels and Chemicals**

As outlined in the Environmental Management Strategy, the facility stores fuels on site (above and below ground) to enable machinery to be refuelled on site when required. Refuelling areas are bunded to collect any spillage and there is a canopy over the above ground tank to prevent the bunded area from being filled with rainwater. There are also appropriate spill kits available.

No chemicals are used in the production process. The only chemicals stored on site are various cleaning chemicals, pesticides. A register of the dangerous goods is contained in the site's Dangerous Goods manifest.

### **3.7.7 Visual**

Elf Farm Supplies have planted a large number of native trees and shrubs around the plant to provide screening from adjacent roads. As the trees and shrubs continue to grow the visibility of the plant will be reduced.



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### 3.8 Consultation Outcomes

Condition 3A(b) requires the independent auditor to consult with the relevant agencies during the IEA of the Project. SLR contacted the EPA and Hawkesbury City Council.

SLR contacted the EPA on 24 February 2021. SLR advised that they had been engaged to conduct the independent audit. On 25 February 2021 the EPA advised *“The EPA has reviewed the below request and raises no further matters for consideration. The EPA would appreciate a copy of the environment audit report in due course.”*

SLR tried to contact Mr Andrew Johnston from the Hawkesbury City Council on 24 February 2021. SLR did not receive a response.

### 3.9 Complaints Summary

No complaints have been recorded during this IEA period. Elf Farm Supplies has an established and well document complaints procedure. SLR noted that complaints are recorded and investigated as per their EPL requirements.

### 3.10 Incidents

No environmental incidents were recorded during this IEA period for the site. A high level of environmental management was observed. Note the auditor does not consider notification for emergency use of the western dam as an environmental incident, as use of the dam is permitted under certain circumstances.

### 3.11 Actual versus Predicted Impacts

SLR audited the EIS mitigation and management measures (predictions), as outlined in the 2013 IEA, and the detailed findings of audit were presented in Appendix C of the 2013 IEA. SLR audited the same EIS predictions that were applicable to this IEA reporting period, to allow consistency between each IEA.

There were a number of commitments made in the EIS that have not been complied with at all, some have been complied with some of the time and some have not been triggered. Of the 15 EIS predictions audited:

- Three (3) were not triggered;
- Seven (7) were complied with; and
- Five (5) were closed.

SLR recommends the following:

- Review EIS predictions to determine which EIS predictions and commitments are relevant to current operations based on risk and operating practices; and
- Once this has been clarified an “update” set of EIS predictions can be available for the next IEA.

### 3.12 Site Inspection

Refer to detailed **Appendices A and C** for observations made during the site inspection, while **Appendix B** contains photographs taken during the site inspection.

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### 3.13 Site Interviews

**Table 8** lists the personnel interviewed during the site visit component of the audit.

**Table 8 Personnel Interviewed During the Audit**

Name	Title
Neil Cockerell	General Manager
Blake Edwards	WHS & HR Manager
Mark Hengst	Plant Manager

The interviews conducted allowed the auditor to form the opinion that the approach to environmental management and environmental controls (and operations more broadly) is well understood by senior staff.

### 3.14 Key Strengths

The following strengths in terms of environmental management were identified:

- Commitment from senior management to protection of the environment;
- Resources dedicated to environmental management within the business;
- Knowledge of senior management of their environmental management processes;
- Well established and documented plans;
- Regular inspections of key environmental issues; and
- Well established environmental training for employees and contractors.

## 4 Recommendations

### 4.1 Non-compliances

**Table 9** summarises the non-compliances identified during the audit against the DA conditions and puts forward recommendations for Elf Farm Supplies to consider to assist in resolving these.

**Table 9 Recommendations to Address Non-compliances with Project Conditions**

Schedule	Condition	Topic of Non-Compliance	SLR Recommendation (Actions)
3	23	Not establishing riparian corridor within desired time frame.	Riparian corridor has now been established. No further action required.
5	1	Environmental management strategy not up-to-date.	Elf to update the Strategy.
5	4	Elf not meeting within three months review of PIRMP being.	Elf to ensure that PIRMP is reviewed in a more timely manner after any incident (within 3 months).
5	7 and 8	Community Consultation Strategy implementation	Elf to update the Community as per the strategy regarding the completion of the construction works.

### 4.2 Plans and Procedures - Opportunities for Improvement

**Table 10** summarises other recommendations that have come from reviewing Elf's AMER's, Environmental Management Strategy, Plans, procedures and associated forms.

**Table 10 Recommendations for Improvement for Plans and Procedures**

Recommendation	Justification
AMER – do not use administrative non-compliance in Compliance Table	The use of Administrative non-compliance is not permitted under the NSW Government, Requirement 1, Compliance Reporting – Post Approval Requirements, May 2020.
AMER – add additional one line in each Management and Monitoring section - Reference the Management Plan/Strategy which addresses this matter	The letter from the Department of Planning and Environment dated 28 October 2018 required (item 2) Brief summarises on the effectiveness of the management plans applicable to the Substrate plant. Including the reference to the relevant plan or strategy would ensure compliance with this requirement.
AMER – include aerial photograph of the site showing the operational disturbance footprint.	Ensure compliance with the letter from the Department of Planning and Environment dated 26 October 2018 (item 5).
AMER – include Appendix which has Compliance table as per Department Compliance Reporting – Post Approval Requirements document which covers ALL conditions	Ensure compliance with the letter from the Department of Planning and Environment dated 26 October 2018 (item 6).
AMER – include Appendix Department of Planning – Annual Review letter (26 October 2018)	Ensure compliance with the letter from the Department of Planning and Environment dated 26 October 2018 (item 7).
AMER – include a section in the main report Action items from the previous AMER and provide update on status	This is to ensure that Elf is continuously improving and does not miss implementing actions from the previous 12 months.
AMER – include section under Section 4 relating to annual testing of the PIRMP.	To act as a reminder to Elf to undertake annual testing of the PRIMP as required by the EPA and record compliance with this requirement in the AMER as it is a regulatory requirement.

Recommendation	Justification
<b>2019 Outstanding Recommendations</b>	
Environmental Management Strategy, Section 7.3, needs to be updated to reflect the current criteria.	The Operational Noise Management Plan refers to in Section 2.1 the Department of Planning replacing the noise assessment objectives set out in Condition 19 of Schedule 3. Evidence of this change sighted in Modification of Minister's Approval issued on 14 March 2016 for Project Approval MP 08_0255.
Environmental Management Strategy including appendices need to be reviewed and updated	For examples, Sections 4.3, 5.2.2, 5.3, 5.9.3, 7.2, 7.3 and 8.2 are not current. The Figures in the Strategy should also be updated. Reporting section of the report needs to be updated to include the additional information that the Department of Planning and Environment requires in the Annual Management Environmental Review report as per their letter dated 26 October 2018. Appendices to be updated to ensure personnel have current plans and licences to refer to and ensure correct management practices and procedures are followed. Appendix A has obsolete EPL, Appendix C has obsolete Water Management Plan, Appendix D has obsolete Operational Noise Management Plan. Appendix E has obsolete Odour Management Plan.
Update the Water Management Plan to include the two additional 25,000 litres tanks recently installed to assist with managing the site water and wastewater.	To ensure that the Water Management Plan reflects all current practices on site to manage water.
Update the Odour Management Plan to include the covering and extraction of air from the western pit to the biofilter control system and the additional tanks.	To ensure that the Odour Management Plan reflects all the current practices on site for managing odour.
Develop and implement a modified environmental management system.	This was a recommendation from 2016 IEA that Elf agreed to implement and is still ongoing.
SLR recommends that a formal document control procedure and register be developed for all environmental (and possibly quality and health and safety) procedures, forms, guidelines, plans etc for the site.	This was a recommendation from 2016 IEA and 2019 IEA that Elf agreed to implement and is still ongoing.
Implementation of the recommendations from the Odour Emissions and Biofilter Control System audit.	To assist with maintaining compliance with the EPA requirements of managing offensive odours beyond the boundary.

### 4.3 Additional Opportunities for Improvement

**Table 11** summarises additional opportunities for improvement suggested for consideration by Elf to aid in environmental management on site and reduce the risk for potential environmental harm.

**Table 11 Additional Recommendations and Opportunities for Improvement**

Opportunities / Recommendations	Justification
Document Management Index – create a separate tab for Environment Documents and include the Environmental Management Strategy and all the management plans developed for the site, as well as a last reviewed date column	The current Document Management index does not include any of the management plans for the site, odour, noise, water nor the Environmental Management Strategy. Having documents listed enables Elf to know all the relevant plans and strategies which are to be implemented, the last version number and last review date.

Opportunities / Recommendations	Justification
Field Odour Surveys – it is recommended that evidence be provided and included as an appendix that the assessor(s) carrying out the field odour surveys have undertaken odour assessor testing as per AS4323.3.2001. The report prepared by Todoroski Air Sciences did not provide any evidence of compliance to the Australian Standard, therefore it is not possible to determine if they complied with the standard or not.	This is ensure that the person carrying out the field surveys meets the requirements of the Australian Standard as an odour assessor. Refer to the Certificates of Analysis provided in Appendix D of the SLR report 610.18422-R01-v5.0.
Todoroski Air Sciences to ensure that final reports are reviewed prior to being issued to Elf Farm Supplies.	The Field Odour Survey report prepared by Todoroski Air Sciences dated 26 May 2020, Job Number 189090878, Final-004 was not peer reviewed. It is normal practice that any professional report is peer reviewed prior to being issued. It is noted that earlier versions (final reports were produced after each round) of the report were also not reviewed and documented in the Document Control Table.
Develop and implement a modified environmental management system.	This was a recommendation from 2016 and 2019 IEA that Elf agreed to implement and is still ongoing.

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## 5 Conclusions

The Project Approval MP 08\_0255 consists of 81 conditions in total. This IEA covers the period from 1 March 2019 to 14 March 2021. The audit was carried out between December 2020 and March 2021, with SLR being supplied information as requested. This audit report was completed on 14 March 2021.

Of the 81 Conditions, 22 (27%) were considered closed as per the findings of the previous IEAs in 2016 and 2019, 17 (21%) were considered not triggered and one (1) was classified as notes for information and not requiring auditing, hence 41 conditions were audited.

Of the 41 auditable conditions, compliance was achieved for 36 (87.8%), non-compliance recorded for 5 conditions (12.2%). All non-compliances were assessed to be of a low risk.

87.8% compliance was a continued improvement on the 70% compliance achieved in 2019 IEA and 61% in the 2016 IEA.

During the process, a high degree of senior management commitment at Elf to minimising the impact on the environment was evident. Elf was commended for their proactive nature on managing environmental matters. During the audit, Elf management appeared receptive and encouraged the auditor to identify opportunities for improvement.

Elf has also demonstrated continuous environmental improvement by capturing the air emissions from the western pit and transferring the air into the biofilter control system and installing additional balance tanks to assist with water and odour management on-site.

In conclusion, the environmental performance of the site has improved since the completion of construction and commencement of the odour control system.




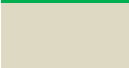


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# APPENDIX A

## Detailed Audit Findings

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**Key:**

	Compliant
	Not triggered
	Non-compliant
	Closed

08\_255 MOD 1 – Approved 14 March 2016

08\_255 MOD 2 – Approved 4 November 2019

08\_255 MOD 3 – Approved 16 March 2020

## Schedule 2 of MOD 1 – Administrative Conditions

**Table 12 Administrative Conditions**

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
Obligation to minimise harm to the environment				
1	The Proponent must implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction and/or operation of the Project	Interview: General Manager – advised all measures have been implemented thus far to prevent harm to the environment.	<p>Documentation viewed:</p> <ul style="list-style-type: none"> <li>• <i>Elf Farm Supplies Mushroom Substrate Facility – Annual Environmental Management Review, Mulgrave, NSW, Revision 0, September 27 2019</i>, prepared by Elf Farm Supplies Pty Ltd.</li> <li>• <i>Elf Farm Supplies Mushroom Substrate Facility – Annual Environmental Management Review, Mulgrave, NSW, Revision 0, 28 September 2020</i>, prepared by Elf Farm Supplies Pty Ltd.</li> <li>• <i>EPA letter dated 30 June 2019, Licence 6229 – Administrative fee</i>. Risk level determination in this letter was Environmental management category C and Overall environmental risk level – Level 2.</li> <li>• <i>EPA letter dated 30 June 2019, Licence 6229 – Administrative fee</i>. Risk level determination in this letter was Environmental management category A and Overall environmental risk level – Level 1.</li> <li>• <i>EPA Licensing guidelines – Environmental risk levels – July 2016</i>.</li> </ul> <p>No penalty notices have been issued to Elf in the past two reporting periods by either the EPA or Planning.</p>	Compliant

			No letters received from EPA or Planning concerning any environmental incidents that could cause harm to the environment.	
Terms of Approval				
2	<p>The Proponent must carry out the Project in accordance with the</p> <ul style="list-style-type: none"> <li>(a) EA;</li> <li>(b) Statement of commitments (See Appendix 1);</li> <li>(c) Site layout plans and drawings in the EA;</li> <li>(d) MOD 1</li> <li>(e) MOD 2; and</li> <li>(f) MOD 3</li> </ul>	<p>Site inspection – MOD 1 completed generally in accordance with the plan.</p> <p>MOD 1 construction completed on 3 October 2018.</p> <p>MOD 3 has not commenced.</p> <p>Interview – Administration Manager</p>	<p>Documentation viewed:</p> <ul style="list-style-type: none"> <li>• <i>Elf Farm Supplies, Staged Development of Mushroom Substrate Plant, Construction Environmental Management Plan, Revision No.1 July 2016, Prepared By Perram &amp; Partners.</i></li> <li>• <i>2015 EA Titled Mushroom Substrate Plant Modification to Approved Project, Environmental Assessment (Perram &amp; Partners, February 2015)</i></li> </ul> <p>Other documents sighted included:</p> <ul style="list-style-type: none"> <li>• <i>Elf Farm Supplies Pty Ltd and Elf Mushrooms Pty Ltd Mushroom Expansion in Western Sydney, Preliminary Environmental Assessment, Perram &amp; Partners, November 2008 121R1.</i></li> <li>• <i>Elf Farm Supplies Mushroom Substrate Facility – Annual Environmental Management Review, Mulgrave, NSW, Revision 0, September 27 2019, prepared by Elf Farm Supplies Pty Ltd.</i></li> <li>• <i>Elf Farm Supplies Mushroom Substrate Facility – Annual Environmental Management Review, Mulgrave, NSW, Revision 0, 28 September 2020, prepared by Elf Farm Supplies Pty Ltd.</i></li> </ul> <p>No penalty notices have been issued to Elf in the past two reporting periods by either the EPA or Planning.</p> <p>No letters received from EPA or Planning concerning any environmental incidents that could cause harm to the environment.</p>	Compliant

3	If there is any inconsistency between the above documents, the most recent document must prevail to the extent of the inconsistency. However, the conditions of this approval must prevail to the extent of any inconsistency.			Note: No inconsistency between the documents was identified. Notwithstanding, the conditions of the approval are used as the basis for managing compliance on site.
4	The Proponent <b>must</b> comply with any reasonable requirement/s of the <b>Secretary</b> arising from the Department's assessment of: a) any reports, plans, strategies, programs or correspondence that are submitted in accordance with this approval; and b) the implementation of any actions or measures contained in these reports, plans, strategies, programs or correspondence.	Interviews - General Manager, WHS Manager provided evidence of meeting requests from the Department. For example submitting documents on time. Started submitting on-line for 2020 AEMR. Managers did state that Department does not provide any notification back to Elf that it was received, hence no evidence available.	Documents viewed: <ul style="list-style-type: none"> <li>Letter from Department of Planning, Industry and Environment dated 14 September 2019. Updated Water Management Plan accepted. Department requested a copy of the Water Management Plan, prepared by Elf Farm Supplies Pty Ltd, dated 20 June 2020, issue 03 is placed on the project's website. Non-compliance as the Water Management Plan was not uploaded to the Project's website as of 4 January 2021.</li> <li>Letter from Department of Planning and Environment dated 20 December 2019 requesting: <ol style="list-style-type: none"> <li>All future AMERs, that Elf Farm Supplies report on their vegetation management under Schedule 4, Condition 20. It is noted that this relates to the Mushroom Farm site which has not been constructed. Elf has committed to ensuring compliance in a separate AMER for the farm once constructed.</li> </ol> </li> </ul>	Compliant

			<p>2. Provide an updated action plan to the Department by COB 30 January 2020 – email sighted dates 9 January 2020.</p> <p>3. Proponents to submit all post approval and compliance documents online, via the Major Projects Website.</p> <p>4. Elf Farm Supplies website review - AMERs and IEA reports, Elf responses sighted.</p>	
5	This approval must lapse if the Proponent does not physically commence the proposed development association with this approval within 5 years of the date of this approval.	Site inspection – MOD1 EA - civil works began on 22 August 2016.	Modification of Minister's Approval, dated 14 March 2016, Project Approval: MP 08_0255 granted by the Minister for Planning on 11 January 2012, Modification Number MP 08_0255 MOD 1.	Compliant
Limits of Approval				
6	<p>(1) The Proponent must ensure that the Project on the Substrate Plant site does not:</p> <p>a) Product more than 3,200 tonnes per week of phase 1 substrate; subject to (2) below and</p> <p>b) Dispatch more than 1,920 tonnes of phase 3 substrate per week</p>		<p>Documentation viewed:</p> <ul style="list-style-type: none"> <li>Planning letter dated 31 October 2019 – Approval to increase production Phase 1 substrate to 2,400 tonnes per week.</li> <li>Excel production data spreadsheet supplied by Elf.</li> </ul> <p>Phase 1 – Average weekly tonnes per week for the period 19 March 2019 to 29 October 2019 – 1,518 tonnes per week</p> <p>Phase 3 – Average weekly tonnes per week for the period 19 March 2019 to 1 December 2020 was 965 tonnes per week.</p>	Compliant
	<p>(2) The proponent must not produce on the Substrate Plant site more than 1,000 tonnes of phase 1 substrate per week except in accordance with a staged approval granted by the <b>Secretary</b> in accordance with condition 7 Schedule 2 below.</p>		<p>Documentation viewed:</p> <ul style="list-style-type: none"> <li>Planning letter dated 31 October 2019 – Approval to increase production Phase 1 substrate to 2,400 tonnes per week.</li> <li>Production data for Phase 1 substrate from April 2019 to the end of February 2021.</li> </ul>	Compliant

7	<p>(1) The Proponent may apply to the <b>Secretary</b> for approval to increase production of substrate up to the rate of 1,600 tonnes of phase 1 substrate a week on the Substrate Plant site if –</p> <p>a) The Odour Management Plan required under condition 6 of Schedule 4 has been prepared to the satisfaction of the <b>Secretary</b> and is being implemented; and</p> <p>b) An independent odour audit has been prepared and submitted in accordance with Condition 5 of Schedule 3.</p>	Notes – original conditions. Note conditions referenced no longer exist. The condition should read Condition 4 of Schedule 4 not condition 6.	This condition related to previous IEA.	Closed
	<p>(2) The Proponent may apply to the <b>Secretary</b> for approval to increase production of substrate up to the rate of 2,400 tonnes of phase 1 substrate a week on the Substrate Plant site if –</p> <p>a) The site has been producing phase 1 substrate at a rate between 1,500 and 1,600 tonnes per week in accordance with an approval granted by the <b>Secretary</b> under this condition; and</p> <p>b) An independent audit of the site operating in this range has been prepared and submitted in accordance with Condition 5(c) of Schedule 3.</p> <p>Production of up to 2,400 tonnes of phase 1 substrate a week may not occur until the Proponent has received written approval of the <b>Secretary</b>.</p>		<p>Documentation viewed:</p> <ul style="list-style-type: none"> <li>Planning letter dated 31 October 2019 – Approval to increase production Phase 1 substrate to 2,400 tonnes per week.</li> </ul>	Compliant



	<p>(3) The Proponent may apply to the <b>Secretary</b> for approval to increase production of substrate up to the rate of 3,200 tonnes of phase 1 substrate a week on the Substrate Plant site if –</p> <p>c) The site has been producing phase 1 substrate at a rate between 2,300 and 2,400 tonnes per week in accordance with an approval granted by the <b>Secretary</b> under this condition; and</p> <p>d) An independent audit of the site operating in this range has been prepared and submitted in accordance with Condition 5(c) of Schedule 3.</p> <p><b>Production of up to 3,200 tonnes of phase 1 substrate a week may not occur until the Proponent has received written approval of the Secretary.</b></p>	Not applicable.	Not applicable.	Not triggered
	<p>(4) In deciding whether to approve an increase in substrate production under this condition, the <b>Secretary</b> must:</p> <p>a) Assess the odour performance of the premises at its current rate of production;</p> <p>b) Assess the likely odour impacts from the proposed increase; and</p> <p>c) Consider the requirement not to cause or permit the emission of offensive odours from the Substrate Plant site as defined in section 129 of the POEO Act;</p> <p>d) <b>Consider EPA advice regarding compliance with the POEO Act.</b></p>			Note

7A	Unless otherwise agreed in writing by the Secretary, the Proponent must ensure that the work associated with MOD 1, with the exception of the additional Phase 2/3 tunnels and the pre-wet tunnels to be constructed as part of Stage 3 (as identified on the plan in Appendix 2) has been constructed and is operating within two years from the date of the approval of MOD 1.		This condition related to previous IEA (2019).	Closed
7B	Nothing in this approval permits the construction of the landscaped mound along the Substrate Plant site's western boundary identified in the letter from WMA Water dated 21 January 2016.		This condition related to previous IEA (2016).	Closed
Mushroom Farm Site				
8	The Proponent must ensure that the Mushroom Farm site does not produce more than 220 tonnes mushrooms per week. Records of weekly mushroom production levels and details of the break-down of the total volume distributed must be kept on site at all times and made immediately available to the Secretary on request.	Interview: WHS & HR Manager advised in writing in December 2020 that the mushroom farm has not been constructed.	Not triggered.	Not triggered.
Existing Development Consents and Rights				
9	The Proponent must surrender all existing development consents in accordance with Clause 97 of the EP&A Regulation for the land referred to in Schedule 1, within 12 months of commencement of Stage 1 operations, or as otherwise agreed by the Secretary.		This condition related to previous IEA (2016).	Closed
Transitional Arrangements				
10	All existing environmental management plans that apply to Substrate Plant site under DA No. 0623/02, DA No. 0571/06, DA No. 0921/06, DA No. 0701/07 and DA No. 0120/09 must continue to be fully applied until replaced under this approval.		All consents have been surrendered as per Condition 9. This condition considered closed.	Closed

Structural Adequacy				
11	<p>The Proponent <b>must</b> ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures are constructed in accordance with the relevant requirements of the BCA.</p> <p>Notes:</p> <ul style="list-style-type: none"> <li>Under Part 4A of the EP&amp;A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works.</li> <li>Part 8 of the EP&amp;A Regulation sets out the requirements for the certification of the Project.</li> </ul>		This condition related to previous IEA (2019).	Closed
11A	<p>The Proponent <b>must</b> ensure that any structures which require a relevant alternate solution developed to meet the performance requirements of the BCA <b>must</b> be designed in consultation with Fire and Rescue.</p>		This condition related to previous IEA (2019).	Closed
Demolition				
12	<p>The Proponent <b>must</b> ensure that all demolition work is carried out in accordance with Australian Standard AS 2601:2001: The Demolition of Structures, or its latest version.</p>	<p>Site inspection: Phase 1 tunnel and existing weighbridge sighted. No demolition of structures has occurred in this reporting period.</p>	<p>Documentation viewed (reference only on what was proposed):</p> <ul style="list-style-type: none"> <li>Perram &amp; Partners, July 2016, <i>Elf Farm Supplies, Staged Development Of Mushroom Substrate Plant, Construction Environmental Management Plan</i>, Revision No1, 137R1.</li> </ul> <p>Section 2.2.2 states <i>There is no significant demolition associated with the project. Minor demolition works including removing sections of the western wall of the existing pre-wet shed, removing part of the northern façade of the Phase 1 tunnel building and removing an existing weighbridge.</i></p>	Not triggered

Operation of Plant and Equipment				
13	<p>The Proponent <b>must</b> ensure that all plant and equipment used for the Project is:</p> <ul style="list-style-type: none"> <li>a) Maintained in a proper and efficient condition and</li> <li>b) Operated in a proper and efficient manner.</li> </ul>	<p>WHS/HR Manager advised in January 2021 – 7 full time maintenance staff including Maintenance Manager, Elf manages plant and equipment via a number of mechanisms including as per 2016 IEA:</p> <ul style="list-style-type: none"> <li>• Equipment Register (since 2015)</li> <li>• Daily maintenance records thru employee diaries</li> <li>• Maintain a Major Plant Item spreadsheet</li> <li>• Have Standard Operating Procedures (SOPs) for all major pieces of plant</li> <li>• Training needs analysis process in place for personnel to ensure they are competent to operate plant and equipment.</li> </ul>	<p>Documents viewed:</p> <ul style="list-style-type: none"> <li>• Master Document Management Index 2020 – includes Training Policy, Environment Documents section – Compliant form, Farm Dam pumping, Farm Dam, Pollution Incident response management plan. All dated 2016 as last version.</li> <li>• Training Needs Analysis (TNA) records sighted for Daniel and Joel.</li> </ul>	Compliant
Utilities				
14	<p>Prior to the construction of any utility works, the Proponent <b>must</b> obtain the necessary approvals from relevant service providers.</p>	<p>WHS/HR Manager advised in writing in December 2020 that no utility works has occurred during this IEA reporting period.</p>		Not triggered
Submission of Plans or Programs				
15	<p>With the written approval of the Secretary, the Proponent may:</p> <ul style="list-style-type: none"> <li>a) Submit any reports, plans, strategies or programs required by this approval on a progressive basis; and</li> <li>b) Combine any reports, plans, strategies or programs required for the Substrate Plant site with any similar reports, plans, strategies or programs for the Mushroom Farm site.</li> <li>c) Separate any reports, plans, strategies or programs required for the Substrate Plant site with any similar reports, plans, strategies or programs for the Mushroom Farm site.</li> </ul>		<p>Documents viewed included:</p> <ul style="list-style-type: none"> <li>• Planning letter dated 31 October 2019 – Approval to increase production Phase 1 substrate to 2,400 tonnes per week.</li> <li>• Letter from Department of Planning and Environment dated 20 December 2019 advising that the AEMR and IEA reviewed both documents and is satisfied that they meet the requirements of Schedule 5, Condition 3 and 3A of the Consent.</li> </ul>	Compliant

16	<p>Where conditions of this approval require consultation with an identified party, the Proponent must:</p> <ul style="list-style-type: none"><li>(a) Consult with the relevant party prior to submitting the subject document to the Secretary for the approval; and</li><li>(b) Provide details of the consultation undertaken, matters resolved and unresolved and</li><li>(c) Details of any disagreement remaining between the party consulted and the Proponent and how the Proponent has addressed the matters not resolved.</li></ul>		<p>This condition relates to MOD3 which was approved on 16 March 2020. This has not been triggered in relation to any new or amended plans.</p>	<p>Not triggered</p>
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### Schedule 3 – Specific Environmental Conditions

**Table 13 Specific Environmental Conditions**

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
Construction Environmental Management Plan				
1	<p>The Proponent must prepare and implement a Construction Environmental Management Plan for the Substrate Plant site to the satisfaction of the <b>Secretary</b>. This plan must:</p> <ul style="list-style-type: none"> <li>a) Be prepared in consultation with <b>DPIE and the EPA</b>;</li> <li>b) Be submitted for approval prior to commencement of construction and include: <ul style="list-style-type: none"> <li>• A noise and vibration management plan, including a noise monitoring program that can be used to demonstrate compliance with the construction noise criteria in Condition 18 below;</li> <li>• An air quality management plan;</li> <li>• A soil and water management plan, including details of erosion and sediment control measures to be used on site</li> <li>• A flora and fauna management plan</li> <li>• A heritage management plan</li> <li>• A Traffic management plan; and</li> <li>• A waste management plan</li> </ul> </li> </ul>		This condition related to previous IEA period (2016) and is now closed.	Closed
1A	<p>The Proponent <b>must update the CEMP required by Condition 1 of Schedule 3 to include the works associated with MOD 1. The updated plan must be submitted to and approved by the Secretary prior to the commencement of any construction works associated with MOD 1.</b></p> <p>The revised CEMP <b>must be implemented throughout the construction works.</b></p>		This condition related to previous IEA period (2019) and is now closed.	Closed

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
1B	<p>Prior to the commencement of the MOD 3 construction works, the Proponent must prepare an updated Construction Environmental Management Plan (CEMP) for the Substrate Plant site to the satisfaction of the Secretary. The updated CEMP must:</p> <ul style="list-style-type: none"> <li>(a) Be prepared in consultation with the requirements of Schedule 3, Condition 1 and Schedule 5, Condition 2 of this Approval;</li> <li>(b) Be prepared in consultation with Sydney Trains</li> <li>(c) Detail the measures that are to be implemented to minimise the impacts associated with MOD 3 construction works and</li> <li>(d) Include: <ul style="list-style-type: none"> <li>(I) Plans which confirm the stormwater management system will not result in ponding or stormwater impacts to the Rail Corridor and</li> <li>(II) Certification from a suitably qualified and experienced geotechnical or structural engineer which confirms the construction of the noise barrier and filling of the open bale storage area will not impact upon the adjacent Rail Corridor.</li> </ul> </li> </ul>	WHS/HR Manager advised in writing in December 2020 that this project has not commenced.		Not triggered
1C	<p>The Proponent must:</p> <ul style="list-style-type: none"> <li>(a) Not commence the MOD 3 construction until the updated CEMP is approved by the Secretary; and</li> <li>(b) Implemented the most recent version of the updated CEMP approved by the Secretary for the duration of the MOD 3 construction works.</li> </ul>	WHS/HR Manager advised in writing in December 2020 that this project has not commenced.		Not triggered
Offensive Odours				

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
2	The Proponent must not cause or permit the emission of offensive odours from the Substrate Plant Site, as defined under Section 129 of the POEO Act.		<p>Documentation viewed:</p> <ul style="list-style-type: none"> <li><i>Complaints Register</i> on the Elf Farm Supplies website. No complaints have been received by Elf Farm Supplies or via NSW EPA for entire period of 2019 and 2020 and January and February 2021.</li> <li><i>Field Odour Survey – Elf Farm Supplies – 21 March 2019 Job Number 18090878</i>, prepared by Todoroski Air Sciences Pty Ltd – Odour Survey No. 1 _ FINAL 001 Conclusion “No odour associated with Elf Farm Supplies was able to be identified during the survey Some very slight and slight “musty, earthy, mouldy” odour was infrequently detected, and may possible be related to the bio filer, but this could not be reasonably established. Regardless, this odour could not be described as offensive.”</li> <li><i>Field Odour Survey – Elf Farm Supplies – 21 March 2019 Job Number 18090878</i>, prepared by Todoroski Air Sciences Pty Ltd - Odour Survey No. 2 _ FINAL 002</li> </ul>	Compliant
Air Quality - Odour Emissions Plant Design and Construction				



Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
3	<p>Prior to the commencement of construction of the works associated with MOD1, the Proponent must commission and pay the full cost of an independent odour specialist to review the detailed design of the odour emissions plant and assess its capacity to meet the performance criteria within the Environmental Assessment for MOD1. The review must:</p> <ul style="list-style-type: none"> <li>a) Be provided to the Secretary and the EPA within two weeks of finalisation of the review; and</li> <li>b) Be endorsed by the Secretary in consultation with the EPA prior to the commencement of construction of the works associated with MOD 1.</li> </ul> <p>Should the review not certify that the odour emissions plant has the capacity to meet the performance criteria within the Environmental Assessment for MOD 1, then the Proponent must undertake additional design to meet the criteria, to the satisfaction of the Secretary within the timeframe specified by the Secretary. The additional design is to be endorsed by the independent odour specialist.</p>		This condition related to previous IEA period.	Closed
3A	The Proponent must construct the odour emissions plant in accordance with the final design endorsed by the independent odour specialist required by Condition 3.		This condition related to previous IEA period (2019).	Closed
3B	<p>Prior to the commencement of operation of the odour emissions plant, the Proponent must commission and pay the full cost of an independent odour specialist to certify that the 'as constructed' odour emissions plant has been undertaken in accordance with the final detailed design with reference to the Environmental Assessment for MOD 1 and the outcomes of Condition 3 of Schedule 3.</p> <p>A copy of the certification is to be provided to the Secretary and the EPA within one week of its finalisation.</p>		This condition related to previous IEA period (2019).	Closed

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
3C	The Proponent must implement all reasonable and feasible measures to ensure that all new structures are constructed to prevent corrosion from the atmosphere contained within those structures.		This condition related to previous IEA period (2019).	Closed
Odour Management Plan				
4	<p>The Proponent must prepare and implement an Odour Management Plan for the Substrate Plant site to the satisfaction of the Secretary. This plan must:</p> <ul style="list-style-type: none"> <li>(a) be prepared in consultation with the EPA by a suitably independent, qualified and experienced expert whose appointment has been endorsed by the Secretary;</li> <li>(b) be submitted to the Secretary for approval within 3 months of the date of this approval;</li> <li>(c) describe in detail the measures that would be implemented on site to minimise the odour impacts of the Project, such as storing the stable bedding in the pre-wet shed extension building in Stages 2 and 3, and to ensure that these measures remain effective over time;</li> <li>(d) identify triggers for remedial and contingency action; and</li> <li>(e) include a program for monitoring the odour impacts of the Project.</li> </ul>		This condition related to previous IEA reporting period (2016).	Closed

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
4A	<p>The Proponent <b>must</b> update the Odour Management Plan for the Substrate Plant site, in consultation with the EPA, to the satisfaction of the Secretary. This plan is to update the plan approved under Condition 4 of Schedule 3 and <b>must</b>:</p> <p>(a) be prepared a suitably independent, qualified and experienced expert whose appointment has been endorsed by the Secretary; (b) be submitted to the Secretary for approval within one month of the date of endorsement by the Secretary of the odour emissions plant design as required under Condition 3(a) of the approval; (c) identify of all major sources of odour; (d) include management measures to ensure no offensive odours from the Substrate Plant site; (e) include procedures for the monitoring of odour emissions, in accordance with the requirements of the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> and any requirements of the EPA. The odour monitoring program <b>must</b> include, but not be limited to: i. results of the complaints handling system; and ii system and performance review for continuous improvement; (f) include odour management performance parameters that are consistent with the manufacturers' performance guarantees provided for the biofilter and scrubbers; (g) include measures to prevent and/or mitigate fugitive emissions; (h) include triggers for remedial and contingency action; (i) include contingency measures in the event of failure of any component of the odour emissions plant and biofilter system or identification of fugitive emissions from the facility. Contingency measures <b>must</b> include enclosing the West Water Recycle pit and treating the post 36 hour / emissions from the Phase 2/3 building via the ammonium scrubbers and biofilter.</p>		This condition related to previous IEA reporting period (2016).	Closed

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
4B	The approval updated Plan (as revised and approved by the Secretary from time to time), must be implemented for the life of the Project as soon as written endorsement by the Secretary is received.	Auditor sighted odour controls in place during the inspection – ducting, negative pressure in buildings, scrubbers, biofilter.		Compliant
Odour Emissions and Biofilter Control System Audit				

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
5	<p>The Proponent must undertake an Odour Emissions and Biofilter Control System Audit to quantify the odour abatement efficiency of the odour emissions plant and assess the effectiveness of all other odour controls on the Substrate Plant site:</p> <p>(a) within six weeks of the commissioning of the biofilter;</p> <p>(b) within six weeks of the decommissioning of the bioscrubber;</p> <p>(c) prior to the commencement of each increase in production, in accordance with Conditions 7(2) and 7(3) of Schedule 2;</p> <p>(d) and as directed by the Secretary;</p> <p>(e) each audit required under (a) to (d) inclusive, must:</p> <p>i. be undertaken and prepared by a suitably qualified, experienced and independent expert whose appointment has been endorsed by the Secretary;</p> <p>ii. be prepared in consultation with the EPA;</p> <p>iii. report on the results of the source emissions sampling and analysis undertaken in accordance with the Odour Management Plan (required by Condition 4A of Schedule 3) or as otherwise agreed to in writing by the EPA;</p> <p>iv. review the Proponent's production data (that are relevant to the audit) and complaints record;</p> <p>v. review any complaints received during the relevant period;</p> <p>vi. determine whether the Project is complying with condition 2 of Schedule 3; and, if necessary;</p> <p>vii. recommend whether any additional management works and/or management practices are required to ensure no offensive odours from the Substrate Plant site.</p>		<p>Note: the previous IEA (2019) addressed the Odour Emissions and Biofilter Control System Audit relating to the commissioning of the biofilter.</p> <p>During this IEA period, Elf Farm Supplies were seeking approval to increase production. Hence this audit will focus on the Odour Emissions and Biofilter Control System Audit prepared for this specific activity.</p> <p>Documentation viewed:</p> <ul style="list-style-type: none"> <li>i) Odour Emissions &amp; Biofilter Control System Audit, Elf Farm Supplies, Condition 5(c) and 5(e), prepared for NSW Department of Planning and Environment and the Proponent Elf Farm Supplies. Version No. 5.0, dated October 2019.</li> <li>ii) Letter dated 31 October 2019 from the Department of Planning, Industry and Environment approving request to increase production rate of Phase 1 substrate at the Substrate Plant site to 2,400 tonnes per week, subject to you ensuring the four actions identified in the Action Plan are implemented on an on-going basis.</li> </ul>	Compliant

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
6	Within 2 weeks of this audit being completed, or in a timeframe as otherwise agreed by the Secretary, the Proponent <b>must</b> submit a copy of the audit report to EPA and the Secretary together with an action plan demonstrating how the findings of the audit are to be implemented.		<p>Documents viewed:</p> <ul style="list-style-type: none"> <li>Elf Farm Supplies Independent Odour Emissions and Biofilter Control System Audit, Reference No. 610.18411-R01-v5.0, dated 1 October 2019.</li> <li>Letter dated 31 October 2019 from the Department of Planning, Industry and Environment approving request to increase production rate of Phase 1 substrate at the Substrate Plant site to 2,400 tonnes per week. This letter states letter received on 1 October 2019 seeking approval from Elf to increase production.</li> <li>Action Plan titled – Odour Emissions &amp; Biofilter Control System Audit, prepared by Elf Farm Supplies Pty Ltd, dated 6 March 2019.</li> </ul>	Compliant
6A	Two months after the completion of the audits required under Conditions 5 (a) and 5(b) of Schedule 3, the Proponent must submit to the satisfaction of the Secretary, a report verifying that any actions identified in the audit have been implemented.		<p>Documents viewed:</p> <ul style="list-style-type: none"> <li>Action Plan titled – Odour Emissions &amp; Biofilter Control System Audit, prepared by Elf Farm Supplies Pty Ltd, dated 6 March 2019.</li> </ul>	Compliant
Dust				

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
7	The Proponent <b>must</b> implement all reasonable and feasible measures to minimise dust generated at the Substrate Plant site.	Site inspections: dust levels were low during the site audits in January 2021.	Documentation viewed: <ul style="list-style-type: none"> <li><i>Complaints Register</i> on the Elf Farm Supplies website. No complaints have been received by Elf Farm Supplies or via NSW EPA for entire period of 2019 and 2020 and January and February 2021.</li> <li><i>Elf Farm Supplies Mushroom Substrate Facility – Annual Environmental Management Review, Mulgrave, NSW, Revision 0, September 27 2019</i>, prepared by Elf Farm Supplies Pty Ltd.</li> <li><i>Elf Farm Supplies Mushroom Substrate Facility – Annual Environmental Management Review, Mulgrave, NSW, Revision 0, 28 September 2020</i>, prepared by Elf Farm Supplies Pty Ltd.</li> </ul>	Compliant
8	During the construction and operation of the project, the Proponent <b>must</b> ensure that: <ul style="list-style-type: none"> <li>(a) all trucks entering or leaving the Substrate Plant site with loads have their loads covered;</li> <li>(b) the trucks associated with the Project do not track dirt onto the public road network;</li> <li>(c) all areas are maintained in a condition to minimise the emission of wind-blown or traffic-generated dust, to the satisfaction of the <b>Secretary</b>.</li> </ul>	Site inspections: dust levels were low during the site audits in January 2021. No visible dirt was sighted on the public road network entering Elf Farm Supplies.	Documents viewed: <ul style="list-style-type: none"> <li><i>Complaints Register</i> on the Elf Farm Supplies website. No complaints have been received by Elf Farm Supplies or via NSW EPA for entire period of 2019 and 2020 and January and February 2021.</li> </ul>	Compliant
Energy Efficiency Plan				

9	<p>The proponent <b>must</b> prepare and implement an Energy Efficiency Plan on the Substrate Plant site to the satisfaction of the <b>Secretary</b>. This plan <b>must</b>:</p> <ul style="list-style-type: none"> <li>(a) Be submitted to the Secretary for approval prior to the commencement of operations on the site;</li> <li>(b) Describe the measures that would be implemented to minimise energy use on the site;</li> <li>(c) Explore the possibility of using renewable energy use to generate power and</li> <li>(d) Include a program to monitor the effectiveness of these measures and a protocol to periodically review the plan</li> </ul>		<p>Note – the preparation and submission of the Energy Efficiency Plan was audited in the previous IEA (2016) and these elements are considered closed. This audit is focused on the implementation of the Plan.</p> <p>Documentation viewed:</p> <ul style="list-style-type: none"> <li>• Excel spreadsheet summarising Power, Gas and Water</li> <li>• Electricity bill from AGL for the period covering 1 to 30 September 2019.</li> <li>• Gas bill – Energy Australia bill covering the period from 15 August 2019 to 29 October 2019</li> <li>• <i>Elf Farm Supplies Mushroom Substrate Facility – Annual Environmental Management Review, Mulgrave, NSW, Revision 0, September 27, 2019.</i> Section 4.5 relates to energy efficiency monitoring analysis, while Section 5 is the energy data trend analysis section.</li> <li>• <i>Elf Farm Supplies Mushroom Substrate Facility – Annual Environmental Management Review, Mulgrave, NSW, Revision 0, 28 September 2020,</i> prepared by Elf Farm Supplies Pty Ltd. Section 4.5 relates to energy efficiency monitoring analysis and Section 5 is the energy data trend analysis.</li> <li>• <i>Mushroom Substrate Plant, Mulgrave, Environmental Management Strategy, Report 134R2, 16 January 2017, Version 01.2.</i> Section 5.5 outlines designs features and management procedures in place to maximise energy efficiency.</li> </ul> <p>The Environmental Management Strategy (including the Energy Efficiency Plan) was</p>	Compliant
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Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
			reviewed in November 2016 and again in 16 January 2017 as per Section 8.2.2.	
Fire Management				
10	<p>The proponent <b>must</b>;</p> <ul style="list-style-type: none"> <li>a) Implement suitable measures to minimise the risk of fire on the Substrate Plant site;</li> <li>b) <b>Ensure straw bales stored in the open bale storage area are:</b> <ul style="list-style-type: none"> <li>(i) Readily accessible by firefighting crews and</li> <li>(ii) Separated from buildings and other assets (excluding the noise barrier and northern perimeter wall) to prevent a fire spreading.</li> </ul> </li> <li>c) Extinguish any fires on the Substrate Plant site promptly; and</li> <li>d) Maintain adequate fire-fighting capacity on the Substrate Plant site.</li> </ul>		<p>Documentation viewed:</p> <ul style="list-style-type: none"> <li>• Fire Essential Services Group Service Reports for Monthly Test of Fire Panel and EWS: Report ID 21071 (26 March 2019), Report ID 24525 (25 June 2019), Report ID 27974 (27 September 2019)</li> <li>• Fire Essential Services Group Service Report for Annual Inspection of Paths of Travel, Annual EWS test and Annual Fire detection and alarm system test. Report No. 29065 (31 October 2019)</li> <li>• Fire Essential Services Group Service Report for Annual Fire Doors inspection and Annual Test of Portable Fire Equipment. Report No. 29070 (31 October 2019) and Report No. 40439 (1 October 2020)</li> <li>• Fire Essential Services Group Service – monthly testing of fire pumps and tanks and monthly test of Fire panel and EWS. Reports ID 31627 (16 January 2020), 34932 (which includes 6 monthly testing) (16 April 2020)</li> <li>• <i>Mushroom Substrate Plant, Mulgrave, Environmental Management Strategy, Report 134R2, Version 01.2, 16 January 2017.</i> Section 5.9.2 of the, outlines designs features and management procedures in place to minimise the risk of fire and refers to fire management strategy for the site.</li> <li>•</li> </ul>	Compliant

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
Hazards				
11	The Proponent <b>must</b> ensure that all dangerous goods and hazardous substances are stored and handled on the Substrate Plant site in accordance with the Dangerous Goods Code and AS 1940-2004: The storage and handling of flammable and combustible liquids and AS 3780-2008 The Storage and Handling of Corrosive Substances	Site inspection: January 2020 – same findings as per 2016 and 2018/19 IEAs, SLR sighted a double skinned tank was used for the above ground diesel fuel storage near the weighbridge. The other two diesel fuel tanks were below ground. Each diesel fuel area had spill kits located adjacent.	<p>Documentation viewed:</p> <ul style="list-style-type: none"> <li><i>POL0002.05, Company Policy and Commitment, Use of Hazardous Substances Policy, Revision No: 0, Date 08.05.2015</i></li> <li><i>Elf Farm Supplies Pty Ltd, EFS.OHS.053, Workplace Substances Procedure, reviewed date: 17.11/2016</i></li> <li><i>Environmental Property Services (EPS), August 2016, Pollution Incident Response Management Plan, prepared for Elf Farm Supplies, Reference No. 11131. Section 6 – Inventory of Pollutants and Appendix 1 – Dangerous Goods Risk Management Register , Appendix 12, Safety Equipment Location Map.</i></li> <li>Letter dated 24 June 2018 to Elf Farm Supplies from SafeWork NSW, Notification of Hazardous Chemicals on Premises. Relates to approval for the storage and handling of hazardous chemicals on site.</li> <li>Email from Elf Farm Supplies to EPA relating to diesel spill incident on Friday 5 December 2019. 400 L of diesel was spilled during transfer by TOLL driver. Note that this not recorded as a non-compliance as the spill was handled in accordance with the Australian Standard and associated procedures by all key stakeholders.</li> </ul>	Compliant

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
Waste				
12	The Proponent must store, cause, permit, or allow any waste generated outside the Substrate Plant site to be received at the site for storage, treatment, processing, reprocessing or disposal of at the Substrate Plant site, except with the approval of the <b>Secretary</b> and as expressly permitted by a licence under the Protection of the Environment Operations Act 1997.	Interview: Administration Manager – confirmed that they only bring any waste generated outside the Plant site on site that is permitted under the Environment Protection Licence.	Not applicable.	Compliant
Bunding				
13	The Proponent must store all chemicals, fuels and oils used on the Substrate Plant site in appropriately banded areas, with impervious flooring and sufficient capacity to contain 110% of the largest container stored within the bund, unless double-skinned tanks are used. Any bunds <b>must</b> be designed and installed in accordance with the requirements of all relevant Australian Standards, and/or DECCW's <i>Storage and handling liquids: Environmental Protection – Participant's Manual</i> .	Site inspection: January 2020 – Sighted double skinned tank was used for the above ground diesel fuel storage. The other two diesel fuel tanks were below ground. Each diesel fuel area had spill kits located adjacent.  WHS/HR Manager advised that the PIRMP is currently under review (DRAFT) after desktop test in November 2019 identified additional changes required. Includes updating Section 5 to include Spill kit located at Sulphuric Acid Storage Area. Also Section 5.5 to be updated. Updating Appendices.	Documentation viewed: <ul style="list-style-type: none"> <li><i>Environmental Property Services (EPS), Pollution Incident Response Management Plan, prepared for Elf Farm Supplies, Reference No. 11131. July 2018</i> Section 5.5 Chemical Spill Procedure, Appendix 5 – Chemical Spill Procedure. Appendix 12, Safety Equipment Location Map.</li> <li><i>POL0002.05, Company Policy and Commitment, Use of Hazardous Substances Policy, Revision No: 0, Date 08.05.2015</i></li> <li><i>Elf Farm Supplies Pty Ltd, EFS.OHS.053, Workplace Substances Procedure, reviewed date: 17.11.2016</i></li> </ul>	Compliant
Soil and Waster - Discharge Limits				

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
14	Except as may be expressed provided by an EPL for the Substrate Plant site, the Proponent must comply with Section 120 of the POEO Act.	Administration Manager – no incidents that could cause environmental harm associated with the pollution of waters associated with MOD 1.	<p>Section 120 of the POEO states: A person who pollutes any waters is guilty of an offence.</p> <p>Documentation viewed:</p> <ul style="list-style-type: none"> <li>EPA website – no water pollution penalty notices issued during this IEA period.</li> <li><i>Elf Farm Supplies Mushroom Substrate Facility – Annual Environmental Management Review, Mulgrave, NSW, Revision 0, September 27 2019.</i> No water pollution incidents reported.</li> <li><i>Elf Farm Supplies Mushroom Substrate Facility – Annual Environmental Management Review, Mulgrave, NSW, Revision 0, 28 September 2020,</i> prepared by Elf Farm Supplies Pty Ltd. No water pollution incidents reported.</li> </ul>	Compliant

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
15	The Proponent must ensure that only VENM and/or ENM or material approved by the EPA is used as a fill.		<p>Documentation viewed:</p> <ul style="list-style-type: none"> <li>Supplementary Report to Elf Farm Supplies on Compaction Report for Biofilter Imported Fill Material at 108 Mulgrave Road, Mulgrave NSW, dated 11 May 2016, prepared by Compaction &amp; Soil Testing Services Pty Limited. Section 2 states that processed product described as recycled screened soil was used as the fill material for the biofilter area. Section 3.1 states that Hawkesbury Council granted approval for the use of this material within the project.</li> <li>Elf Farm Supplies, Staged Development of Mushroom Substrate Plant, Construction Environmental Management Plan, Revision 1, July 2016 Perram &amp; Partners, Section 2.2.3 states “that where further fill material is required, it will continue to be sourced from construction projects in the Sydney Region that have surplus excavated material at the time filling is underway. Imported fill is excavated natural material certified to be free from contamination.”</li> </ul>	Compliant
16	The Proponent must ensure that filling of the manoeuvring area must be undertaken in accordance with plans submitted with DA 0571/06.		This condition related to previous IEA reporting period (2016).	Closed
16A	The Proponent must ensure that the earthworks associated with the biofilter pad do not act as a source of sedimentation. The Proponent must stabilise the area of fill associated with the biofilter within one week of the approval of MOD 1.		This condition related to previous IEA reporting period (2016).	Closed

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
16B	<p>Prior to the commencement of construction of the biofilter, the Proponent must submit to the Secretary, details demonstrating that the earthworks in the area of the biofilter have been:</p> <p>(a) undertaken in accordance with AS 3798; and</p> <p>(b) compacted to 98% Standard dry density ratio (AS1289 E4.1).</p>		This condition related to previous IEA reporting period (2016).	Closed
Soil and Water – Water Management Plan				

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
17	The Proponent must prepare and implement a Water Management Plan for the Substrate Plant site to the satisfaction of the <b>Secretary</b> . The plan must be submitted to the Secretary for approval prior to the commencement of operation of Stage 1 and be prepared in consultation with <b>EPA</b> and <b>NOW</b> .		<p>Note: the preparation and submission aspects of this condition relate to previous IEA reporting period (2016). The only aspect to be audited is the implementation.</p> <p>Documentation viewed</p> <ul style="list-style-type: none"> <li>• <i>Elf Farm Supplies Mushroom Substrate Plant, Mulgrave, Water Management Plan</i>, Issue 03 June 2020.</li> <li>• Emails to Department of Planning and EPA on 10 February 2020 relating to the notification of the emergency use of the western dam and the flooding of the western dam from flood waters.</li> <li>• Email dated 2 March 2020 to EPA relating to minor event. <i>Late on 19<sup>th</sup> February 2020, an area of the flood plain was identified as having an unusual pooling of water. The event was investigated and corrective actions were quickly undertaken to contain and fix the seepage to prevent an incident. Report was attached. The event was discussed at length by the Board and although the event is considered minor and not reportable, we wish to proactively provide you with this information.</i></li> <li>• Notification emails throughout 2019 and 2020 sighted to the o the EPA advising western dam water will be used to irrigate the paddock as per our EPL.</li> </ul> <p>Elf is managing the water levels in the dam as per the WMP. Elf is notifying the EPA as per EPL condition of their plans to irrigate.</p>	Compliant

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
17A	<p>The Proponent must prepare an updated Water Management Plan for the Substrate Plant site required by Condition 17 of Schedule 3 to include the works associated with MOD 1. The plan must be submitted to the Secretary for approval prior to the commencement of operation of MOD 1.</p> <p>Operation of works associated with MOD 1 must not commence until the Proponent has received written approval of the plan. The approved Plan must be implemented for the life of the Project.</p>	<p>Site inspection: January 2020, the auditor sighted the discharge points as per the Catchment Plan in the updated Water management Plan, along with the sighting the western dam, basins and stormwater drainage points.</p>	<p>Note that preparation of an updated Water Management Plan and subsequent approval was covered in the previous IEA (2019). This IEA reporting period reviews compliance with the approved Plan's implementation.</p> <p>Documentation viewed:</p> <ul style="list-style-type: none"> <li>Letter from Department of Planning, Industry and Environment dated 14 September 2019. Updated Water Management Plan, dated June 2020, issue 03 accepted.</li> <li><i>Elf Farm Supplies Mushroom Substrate Plant, Mulgrave, Water Management Plan</i>, Issue 03 June 2020.</li> <li>Refer to evidence provided in Condition 17B relating to notification to Planning and EPA of use of Western Dam as per the Water Management Plan.</li> </ul>	Compliant



Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
17B	<p>The Proponent must ensure that the western dam at the Substrate Plant site (identified on the plan in Appendix 2 of this approval) does not receive process water.</p> <p>Notes: The dam may receive water from direct rainfall, area runoff and groundwater and during times of emergency.</p>		<p>Documentation viewed</p> <ul style="list-style-type: none"> <li>• <i>Elf Farm Supplies Mushroom Substrate Plant, Mulgrave, Water Management Plan</i>, Issue 03 prepared by Perram &amp; Partners June 2020.</li> <li>• Water Management Incident Report, prepared by Elf Farm Supplies on 19 March 2020 relating to excess water from heavy rain on Sunday 17 March. Prepared by Blake Edwards, WHS/HR Manager, incident investigation by Mark Hengst.</li> <li>• Email from Elf to Planning, advising of the incident on 18 September 2019, 10 February 2020 and 22 May 2020</li> <li>• Water Management Incident Report, prepared by Elf Farm Supplies on 18 September 2019 relating to excess water from heavy rain on 17-18 September 2019. Prepared by Blake Edwards, WHS/HR Manager, incident investigation by Mark Hengst.</li> <li>• Three other water management incidents reports were prepared for events on 7 February 2020 (report dated 10 February 2020), 12 February 2020 (report dated 17 February 2020) and 22 May 2020 (report dated 22 May 2020)</li> </ul>	Compliant

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
17C	Notwithstanding Condition 17B of Schedule 3, in the event of an emergency such as a high rainfall event or plant breakdown, the Proponent may use the western dam. Notification of any emergency use of the dam must be provided to the Secretary in writing within 7 days of the emergency.		<p>Documentation viewed</p> <ul style="list-style-type: none"> <li>• <i>Elf Farm Supplies Mushroom Substrate Plant, Mulgrave, Water Management Plan</i>, Issue 03 prepared by Perram &amp; Partners June 2020.</li> <li>• Water Management Incident Report, prepared by Elf Farm Supplies on 19 March 2020 relating to excess water from heavy rain on Sunday 17 March. Prepared by Blake Edwards, WHS/HR Manager, incident investigation by Mark Hengst.</li> <li>• Email from Elf to Planning, advising of the incident on 18 September 2019, 10 February 2020 and 22 May 2020</li> <li>• Water Management Incident Report, prepared by Elf Farm Supplies on 18 September 2019 relating to excess water from heavy rain on 17-18 September 2019. Prepared by Blake Edwards, WHS/HR Manager, incident investigation by Mark Hengst.</li> </ul> <p>Three other water management incidents reports were prepared for events on 7 February 2020 (report dated 10 February 2020), 12 February 2020 (report dated 17 February 2020) and 22 May 2020 (report dated 22 May 2020)</p>	Compliant

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
17D	<p>Prior to the commencement of construction of stormwater management system approved under MOD 3, the Proponent must prepare an updated Water Management Plan (WMP) for the Substrate Plant site to the satisfaction of the Secretary. The updated WMP must:</p> <ul style="list-style-type: none"> <li>(a) Be prepared in accordance with the requirements of Schedule 3, Conditions 17 to 17C of this approval;</li> <li>(b) Be prepared in accordance with the updated Stormwater Catchment Plan for the Substrate Plant site (see Appendix 2A of this Approval)</li> <li>(c) Detail the measures that are to be implemented to manage stormwater impacts associated with the MOD 3 works.</li> </ul>	WHS/HR Manager advised in writing in December 2020 that this project has not commenced.		Not triggered
17E	<p>The Proponent must:</p> <ul style="list-style-type: none"> <li>(a) Not commence operation of the MOD 3 stormwater management system until the updated WMP is approved by the Secretary; and</li> <li>(b) Implement the most recent version of the updated WMP approved by the Secretary.</li> </ul>	WHS/HR Manager advised in writing in December 2020 that this project has not commenced.		Not triggered
17F	<p>The Propoent must ensure any structures approved under MOD 3 that are built below the 100-year ARI flood level, including the noise barrier and the northern perimeter wall, are constructed from compatible building components.</p> <p>Note: the 100-year ARI flood level at the Substrata Plant site is RL 17.3 metres AHD.</p>	WHS/HR Manager advised in writing in December 2020 that this project has not commenced.		Not triggered

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status												
Noise – Construction Noise Criteria																
18	<p>The Proponent must ensure that the construction noise generated at the Substrate Plant site does not exceed the criteria in Table 1</p> <p>Table 1: Construction Noise impact assessment criteria dB A</p> <table><tr><th>Receiver/Location</th><th>Day LAeq(15 minute)</th></tr><tr><td>R1 - 46 Mulgrave Road, Mulgrave</td><td>52 65</td></tr><tr><td>R2- Mulgrave Industrial area</td><td>52</td></tr><tr><td>R3 - 2 Railway Road, Mulgrave</td><td>52</td></tr><tr><td>R4- 126 Mulgrave Road, Mulgrave</td><td>51</td></tr><tr><td>R5- Chisholm Place, South Windsor</td><td></td></tr></table> <p>Notes:</p> <p>Noise generated by the Project is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.</p>	Receiver/Location	Day LAeq(15 minute)	R1 - 46 Mulgrave Road, Mulgrave	52 65	R2- Mulgrave Industrial area	52	R3 - 2 Railway Road, Mulgrave	52	R4- 126 Mulgrave Road, Mulgrave	51	R5- Chisholm Place, South Windsor			No construction occurred during this reporting period.	Not triggered
Receiver/Location	Day LAeq(15 minute)															
R1 - 46 Mulgrave Road, Mulgrave	52 65															
R2- Mulgrave Industrial area	52															
R3 - 2 Railway Road, Mulgrave	52															
R4- 126 Mulgrave Road, Mulgrave	51															
R5- Chisholm Place, South Windsor																

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status																		
Noise – Operational Noise Criteria																						
19	<p>The Proponent must ensure that the operational noise generated by the Substrate Plant site does not exceed the criteria in Table 2</p> <p>Table 2: Operational Noise impact assessment criteria dB(A)</p> <table><tr><th>Receiver/Location</th><th>Day LAeq(15 minute)</th><th>Night LAeq(15 minute)</th></tr><tr><td>R1 - 46 Mulgrave Road, Mulgrave</td><td>43</td><td>43</td></tr><tr><td>R2- Mulgrave Industrial area</td><td>42</td><td>37</td></tr><tr><td>R3 - 2 Railway Road, Mulgrave</td><td>44</td><td>41</td></tr><tr><td>R4- 126 Mulgrave Road, Mulgrave</td><td>44</td><td>42</td></tr><tr><td>R5- Chisholm Place, South Windsor</td><td></td><td></td></tr></table> <p>Notes:</p> <p>Noise generated by the Project is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy</p>	Receiver/Location	Day LAeq(15 minute)	Night LAeq(15 minute)	R1 - 46 Mulgrave Road, Mulgrave	43	43	R2- Mulgrave Industrial area	42	37	R3 - 2 Railway Road, Mulgrave	44	41	R4- 126 Mulgrave Road, Mulgrave	44	42	R5- Chisholm Place, South Windsor			<p>Interview: No requests have been received from the EPA requesting any further noise monitoring since noise monitoring after completion of MOD1 works.</p> <p>Note: Elf carried out noise monitoring after completion MOD1 October 2018 as per their Operational Noise Management Plan. The plant has been operating in steady state since that time.</p>	<p>Documentation viewed:</p> <ul style="list-style-type: none"><li>EPA website – no noise pollution penalty notices issued during this IEA period.</li><li>Complaints Register on the Elf Farm Supplies website. No complaints have been received by Elf Farm Supplies or via NSW EPA for entire period of 2019 and 2020 and January and February 2021.</li><li>Acoustic Consulting Engineers, Operational Noise Compliance Measurement, Substrate Plant Mulgrave, Reference number 160787-01-03L-DD, date 5 November 2018.</li><li>Acoustic Consulting Engineers, Substrate Plant Mulgrave, Operational Noise Management Plan, Report No. 1607870-01-02R-DD, date 26 June 2018.</li></ul> <p>Status: the 6 monthly testing is required to be completed by end of April 2019. This was completed in October 2018.</p> <ul style="list-style-type: none"><li>EPL 6229. There is no specific noise monitoring specified as part of the Environment Protection Licence for the site.</li></ul>	Compliance
Receiver/Location	Day LAeq(15 minute)	Night LAeq(15 minute)																				
R1 - 46 Mulgrave Road, Mulgrave	43	43																				
R2- Mulgrave Industrial area	42	37																				
R3 - 2 Railway Road, Mulgrave	44	41																				
R4- 126 Mulgrave Road, Mulgrave	44	42																				
R5- Chisholm Place, South Windsor																						

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status															
Noise – Hours of Work																			
20	<p>The Proponent must comply with the operating hours in Table 3 at the Substrate Plant site, unless otherwise agreed to in writing by the <b>Secretary</b>.</p> <p>Table 3: Operating hours</p> <table><tr><th>Activity</th><th>Day</th><th>Time</th></tr><tr><td rowspan="4">Construction</td><td>Monday – Friday</td><td>7.00am – 6.00pm</td></tr><tr><td>Saturday</td><td>8.00am – 1.00pm</td></tr><tr><td>Sunday and Public Holidays</td><td>Nil</td></tr><tr><td>All days</td><td>Anytime</td></tr><tr><td>Operation</td><td></td><td></td></tr></table>	Activity	Day	Time	Construction	Monday – Friday	7.00am – 6.00pm	Saturday	8.00am – 1.00pm	Sunday and Public Holidays	Nil	All days	Anytime	Operation				<p>Documentation viewed:</p> <ul style="list-style-type: none"><li>Elf Farm Supplies Mushroom Substrate Facility – Annual Environmental Management Review, Mulgrave, NSW, Revision 0, September 27 2019. No complaints received regarding operating hours.</li><li>Elf Farm Supplies Mushroom Substrate Facility – Annual Environmental Management Review, Mulgrave, NSW, Revision 0, 28 September 2020, prepared by Elf Farm Supplies Pty Ltd. No complaints received regarding operating hours.</li><li>Review of Elf Farm Supplies Complaints Register</li></ul>	Compliance
Activity	Day	Time																	
Construction	Monday – Friday	7.00am – 6.00pm																	
	Saturday	8.00am – 1.00pm																	
	Sunday and Public Holidays	Nil																	
	All days	Anytime																	
Operation																			
Noise – Additional Noise Mitigation Measures																			
21	<p>The Proponent must ensure the noise barrier is constructed:</p> <p>(a) Prior to the importation of fill for the expansion of the open bale storage area; or</p> <p>(b) As otherwise agreed to in writing by the Secretary</p>	<p>WHS/HR Manager advised in writing in December 2020 that this project has not commenced.</p>		Not triggered															
21A	<p>The Proponent must continue to implement the “other noise mitigation measures” approved by the Department in its letter dated 18 July 2016 until the noise barrier referred to in Schedule 3, Condition 21 of this approval is constructed.</p>	<p>Site inspection: the auditor sighted the continue use of straw bales as the noise mitigation measure.</p>	<p>Documentation viewed:</p> <ul style="list-style-type: none"><li>Elf Farm Supplies Mushroom Substrate Facility – Annual Environmental Management Review, Mulgrave, NSW, Revision 0, 28 September 2020, prepared by Elf Farm Supplies Pty Ltd. Appendix D has photos of the straw bales being used as noise wall.</li></ul>	Compliant															
Noise – Noise Management Plan																			

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
22	The Proponent must prepare and implement a Noise Management Plan for the Substrate Plant site in consultation with EPA to the satisfaction of the Secretary. The Plan must be submitted to the Secretary for approval prior to commencement of operations, and include a noise monitoring protocol for evaluating compliance with the noise impact assessment criteria in this approval		This condition related to previous IEA reporting period (2016).	Closed
22A	The Proponent must update the Noise Management Plan for the Substrate Plant site, to the satisfaction of the Secretary. This plan is to update the plan approved under Condition 22 of Schedule 3 and must include: (a) the works associated with MOD 1; and (b) a revised monitoring protocol for evaluating compliance with the noise impact assessment criteria in this approval once all construction works associated with MOD 1 are complete.		This condition related to previous IEA reporting period (2019).	Closed
22B	Operation of works associated with MOD 1 must not commence until the Proponent has received the Secretary's written approval of the plan. The approved Plan (as revised and approved by the Secretary from time to time), must be implemented for the life of the Project as soon as written endorsement by the Secretary is received.	<p>Site inspection: Auditor sighted the following noise mitigation measures being implemented:</p> <ul style="list-style-type: none"> <li>Truck access arrangements to allow the forward travel throughout the site</li> <li>Inspection/maintenance/repair program for mobile mechanical plant</li> <li>New processing tunnels to be concrete construction</li> <li>20 km/hour speed limit signs on internal roads.</li> <li>Doors into the various building being closed at all times</li> </ul>	<p>Note: The approval of the updated Operational Noise Management Plan was addressed in the previous IEA (2019). This IEA considers the implementation of the Plan.</p> <p>Documentation viewed:</p> <ul style="list-style-type: none"> <li>Acoustic Consulting Engineers, Substrate Plant Mulgrave, Operational Noise Management Plan, Report No. 1607870-01-02R-DD, date 17 January 2019.</li> <li>Induction material outlining compliance with Environmental Management Strategy</li> </ul>	Compliant

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
<b>Biodiversity – Riparian Management Area</b>				
23	The Proponent must establish a fenced, 35 metre wide riparian corridor along the length of South Creek within 12 months of commencement of operation of Stage 1. The Proponent must consult with the Hawkesbury-Nepean Catchment Management Authority on Methods and species selection to ensure that best practice techniques are used at the site, to the satisfaction of the <b>Secretary</b> .	<p>Interview: WHS/HR Manager Manager advised that the MOD3 has now been approved however submission for MOD 3 retracted and Riparian Management Area has been established.</p> <p>Site inspection: Auditor sighted the 35 metre wide riparian corridor along the length of South Creek. Area was fenced off as per condition requirement.</p>	<p>This condition relates to the previous IEA reporting period (2016 and 2019). In 2016 and 2019 non-compliance was recorded against this condition.</p> <p>Documentation viewed:</p> <ul style="list-style-type: none"> <li>Letter from Perram &amp; Partners to Planning dated 18 January 2017 seeking modification to the development including deleting condition 23.</li> <li><i>Elf Farm Supplies Mushroom Substrate Facility – Annual Environmental Management Review, Mulgrave, NSW, Revision 0, 28 September 2020</i>, prepared by Elf Farm Supplies Pty Ltd. Appendix D has photo of the riparian zone.</li> </ul> <p>Non-compliance would recorded as the area was not established within 12 months of commencement of Stage 1 – no further action required.</p>	<b>Non-compliant</b>
<b>Visual Amenity – Lighting</b>				



Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
24	<p>The Proponent must ensure that all external lighting associated with the Substrate Plant site:</p> <ul style="list-style-type: none"> <li>a) Does not create nuisance to surrounding properties or roadways and</li> <li>b) Complies with AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting.</li> </ul>		<p>Documentation viewed:</p> <ul style="list-style-type: none"> <li>• <i>Elf Farm Supplies Mushroom Substrate Facility – Annual Environmental Management Review, Mulgrave, NSW, Revision 0, September 27 2019.</i> No complaints relating to lighting received.</li> <li>• <i>Elf Farm Supplies Mushroom Substrate Facility – Annual Environmental Management Review, Mulgrave, NSW, Revision 0, 28 September 2020,</i> prepared by Elf Farm Supplies Pty Ltd. No lighting complaints received.</li> </ul> <p>It is noted that new external lighting was installed during this reporting period.</p> <p>Note the Auditor is not familiar with AS4282 and has not conducted an audit against this standard as part of this audit.</p>	Compliant

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
24A	The Proponent <b>must</b> prepare a Landscape Management Plan for the Substrate Plant site. The plan <b>must</b> : (a) be prepared in consultation with Council; (b) identify screen planting to minimise visual impacts of the site, particularly the new biofilter; and (c) be approved by the Secretary prior to the commencement of construction of the works associated with MOD 1.		This condition related to the previous IEA reporting period (2016).	Closed
24B	The landscaping around the site of the new biofilter required under MOD 1 <b>must</b> be installed within three months following the completion of the construction of the biofilter. All other landscaping <b>must</b> be installed prior to the commencement of operation of the works associated with MOD 1.		This condition was met during the previous IEA reporting period (2016).	Closed
Signage				
25	The Proponent <b>must</b> not install any advertising signs on the Substrate Plant site without the written approval of the <b>Secretary</b> .	Interview: January 2020 – WHS/HR Manager – no advertising signs have been erected on the property.	Not applicable.	Not triggered
Transport				
26	The Proponent <b>must</b> ensure that: (a) car parking is constructed in accordance with the relevant requirements of the latest version of AS 2890. 1; and (b) vehicles associated with the Substrate Plant site do not park or queue on the public road network at any time	Site inspection: no queueing was sighted during the site visits and no parking on public roads was occurring.	Documentation viewed: <ul style="list-style-type: none"> <li><i>Letter from Commercial Design Consolidated (NSW) Pty Limited, dated 12 January 2017 states in the conclusion section "The designs and details as presented on the documents supplied appear satisfactory and comply with the requirements of the relevant codes."</i></li> </ul>	Compliant
Protection of Public Infrastructure				

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
27	<p>Before the commencement of MOD 3 construction works, the Proponent must:</p> <ul style="list-style-type: none"> <li>(a) Consult with the relevant owner and provider of services that are likely to be affected by the MOD 3 construction works to make suitable arrangements for access to, diversion, protection and support of the affected infrastructure;</li> <li>(b) Prepare a dilapidation report identifying the condition of all public infrastructure in the vicinity of the site (including roads, gutters and footpaths)</li> <li>(c) Submit a copy of the dilapidation report to the Secretary and Council.</li> </ul>	WHS/HR Manager advised in writing in December 2020 that this project has not commenced.	Not applicable	Not triggered
28	<p>Unless the Proponent and the applicable authority agree otherwise, the Proponent must:</p> <ul style="list-style-type: none"> <li>(a) Repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the carrying out of MOD 3 construction works;</li> <li>(b) Relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the MOD 3 construction works.</li> </ul>	WHS/HR Manager advised in writing in December 2020 that this project has not commenced.	Not applicable	Not triggered
Works As Executed Plans				
29	<p>Before the issue of the final occupation certificates for the works associated with MOD 3, works-as-executed drawings signed by a registered surveyor demonstrating that the stormwater drainage and finished ground levels have been constructed as approved, must be submitted to the PCA and Sydney Trains.</p>	WHS/HR Manager advised in writing in December 2020 that this project has not commenced.	Not applicable	Not triggered
Rail Corridor and Associated Easements				

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
30	<p>The Proponent must ensure:</p> <ul style="list-style-type: none"> <li>(a) No construction or maintenance works associated with MOD 3 occur within the Rail Corridor or is associated easements.</li> <li>(b) Stormwater drainage associated with MOD 3 is not discharged into the Rail Corridor; and</li> <li>(c) Fill is not spread or stockpiled within the Rail Corridor or its associated easements.</li> </ul> <p>Except with the prior approval of Sydney Trains.</p>	WHS/HR Manager advised in writing in December 2020 that this project has not commenced.	Not applicable	Not triggered
31	The Proponent must ensure that straw bales stacked immediately adjoining the southern section of the noise barrier (adjacent to the Rail Corridor) do not exceed the height of the noise barrier.	WHS/HR Manager advised in writing in December 2020 that this project has not commenced.	Not applicable	Not triggered

## SCHEDULE 5 – ENVIRONMENTAL MANAGEMENT AND REPORTING CONDITIONS

**Table 14 Environmental Management and Reporting Conditions**

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
Environmental Management Strategy				
1	<p>The Proponent <b>must</b> prepare and implement an Environmental Management Strategy for the Project to the satisfaction of the <b>Secretary</b>. The Strategy <b>must</b>:</p> <ol style="list-style-type: none"> <li>Be submitted to the <b>Secretary</b> for approval prior to the commencement of operation;</li> <li>Provide the strategic framework for environmental management of the Project;</li> <li>Identify the statutory approvals that apply to the Project;</li> <li>Describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the Project</li> <li>Describe the procedures that would be implemented to: <ul style="list-style-type: none"> <li>Keep the local community and relevant agencies informed about the operation and environmental performance of the Project;</li> <li>Receive, handle, respond to and record complaints;</li> <li>Resolve any disputes that may arise during the course of the project;</li> <li>Respond to any non-compliance; and</li> <li>Respond to emergencies.</li> </ul> </li> <li>Include <ul style="list-style-type: none"> <li>Copies of the various strategies, plans and programs that are required under the conditions of this approval once they have been approved and</li> <li>A clear plan depicting all the monitoring currently being carried out within the Project Area.</li> </ul> </li> </ol>	<p>Inspection: The following elements of the Environmental Management Strategy were sighted during the January 2020 inspection of the facility:</p> <ul style="list-style-type: none"> <li>Traffic controls</li> <li>Odour controls</li> <li>Dust controls</li> <li>Chemical handling – spill kits, dangerous good register</li> <li>Water management – western dam, water recycling pit operations</li> </ul>	<p>Documentation viewed:</p> <ul style="list-style-type: none"> <li><i>Elf Farm Supplies Pty Ltd, Mushroom Substrate Plant, Mulgrave, Environmental Management Strategy, Report 134R2, 16 January 2017. Perram &amp; Partners.</i></li> </ul> <p>The Strategy is not compliant with c) as Section 8.2.1 refers to three yearly performance review reports when that Condition 5 of Schedule 5 has been modified to annual reports. It should be noted that Elf is complying with the Condition 5 of Schedule 5 and preparing and submitting annual management performance reports.</p> <p>There are many sections of the Strategy that require updating to reflect MOD1 completion. For example but not limited to Sections 2.3, 4.2, 4.3, 5.2.2, 5.3, 7.2, 7.3, 8.1.3, 8.2 and 8.3. Figures 2 and 3 and the Appendices all contain many out of date documents, for example the EPL. Many of the Plans in the appendices are being used but have not been included in the Strategy.</p> <p>This is considered an administrative non-compliance as not having the Strategy up-to-date has not resulted as yet in an environmental incidents.</p>	Non-compliant

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
2	<p>The Proponent must ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:</p> <p>a) detailed baseline data;</p> <p>b) a description of:</p> <ul style="list-style-type: none"> <li>the relevant statutory requirements (including any relevant approval, licence or lease conditions) ;</li> <li>any relevant limits or performance measures/criteria; and</li> <li>the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the Project or any management measures;</li> </ul> <p>(c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria</p> <p>(d) a program to monitor and report on the:</p> <ul style="list-style-type: none"> <li>impacts and environmental performance of the Project;</li> <li>effectiveness of any management measures (see c above);</li> </ul> <p>e) a contingency plan to manage any unpredicted impacts and their consequences;</p> <p>f) a program to investigate and implement ways to improve the environmental performance of the Project over time;</p> <p>g) a protocol for managing and reporting any:</p> <ul style="list-style-type: none"> <li>incidents;</li> <li>complaints;</li> <li>non-compliances with statutory requirements; and</li> <li>exceedances of the relevant limits and/or performance measures/criteria; and</li> </ul> <p>h) a protocol for periodic review of the plan</p>		<p>In the previous IEA reports the following original management plans were prepared and approved:</p> <ul style="list-style-type: none"> <li>Odour Management Plan</li> <li>Operational Noise Management Plan</li> <li>Construction EMP</li> <li>Energy Management Plan</li> <li>Water Management Plan</li> </ul> <p>For this reporting period the following plans were required to be updated:</p> <ul style="list-style-type: none"> <li>Operational Noise Management Plan</li> <li>Water Management Plan</li> </ul> <p>Documentation viewed:</p> <ul style="list-style-type: none"> <li><i>Substrate Plant Mulgrave Operational Noise Management Plan</i>, date 26 June 2018, prepared by Acoustic Consulting Engineers. This updated plan was not required to be approved.</li> <li>Letter from Planning dated 4 February 2019 approving the Operational Noise Management Plan.</li> <li><i>Elf Farm Supplies Mushroom Substrate Plant, Mulgrave, Water Management Plan</i> Issue 02, May 2018, Perram &amp; Partners.</li> </ul>	Compliant
Review				

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
3	<p>By the 30 September 2020, and annually thereafter, unless otherwise agreed by the Secretary, the Proponent must review the environmental performance of the Project to the satisfaction of the Secretary. This review must:</p> <p>(a) describe the operations that were carried out during the reporting period;</p> <p>(b) analyse the monitoring results and complaints records of the Project during the reporting period, which includes a comparison of these results against the:</p> <p>i. relevant statutory requirements, limits or performance measures/ criteria;</p> <p>ii. monitoring results of previous years; and</p> <p>iii. relevant predictions in the EA;</p> <p>(c) identify any non-compliance during the reporting period, and describe what actions were (or are being) taken to ensure compliance;</p> <p>(d) identify any trends in the monitoring data over the life of the Project; and</p> <p>(e) describe what measure(s) will be implemented during the next reporting period to improve the environmental performance of the Project.</p>		<p>Documentation viewed:</p> <ul style="list-style-type: none"> <li>• <i>Elf Farm Supplies Mushroom Substrate Facility – Annual Environmental Management Review, Mulgrave, NSW, Revision 0, September 27 2019, prepared by Elf Farm Supplies Pty Ltd.</i></li> <li>• <i>Elf Farm Supplies Mushroom Substrate Facility – Annual Environmental Management Review, Mulgrave, NSW, Revision 0, 28 September 2020, prepared by Elf Farm Supplies Pty Ltd.</i></li> </ul> <p>Elf 2020 AMER review.</p> <p>(a) Compliance – Sections 2, 3 and 5</p> <p>(b) Compliance – Section 4</p> <p>(c) Compliance – Section 4</p> <p>(d) Compliance – Section 5</p> <p>(e) Compliance – Section 4</p>	Compliant

Independent Environmental Audit

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
3A	<p>By 31 March 2021, and every two years thereafter, unless otherwise agreed by the Secretary, the Proponent must commission and pay the full cost of an Independent Environmental Audit of the Project. This audit must:</p> <p>(a) be conducted by suitably qualified, experienced and independent team of experts (including an odour expert), whose appointment has been endorsed by the Secretary;</p> <p>(b) include consultation with the relevant agencies;</p> <p>(c) include a full odour audit of the Project, taking into consideration the relevant technical guidelines and any odour complaints made since the previous audit;</p> <p>(d) assess the environmental performance of the project and assess whether it is complying with the relevant requirements in this approval and any other licenses and approvals that apply to the project, (including any assessment, plan or program required under these approvals) ;</p> <p>(e) review the adequacy of strategies, plans or programs required under these approvals; and, if appropriate;</p> <p>(f) recommend measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under these approvals.</p> <p>Within six weeks of the completing of this audit, or as otherwise agreed by the Secretary, the Proponent must submit a copy of the audit report to the Secretary , together with its response to any recommendations contained in the audit report.</p>		<p>Documentation viewed:</p> <ul style="list-style-type: none"> <li>610.18204-ELF IEA v2.0 20201206 – Offer of Services sighted from SLR Consulting Australia Pty Ltd dated 6 December 2020. Offer related to Schedule 5, Condition 3A.</li> <li>Sighted Elf Farm Supplies Pty Limited, signed agreement with SLR (Formal Instrument of Agreement) dated 7 December 2019, Purchase Order Number C24853. Signed by Garry Faint.</li> <li>This report: <ul style="list-style-type: none"> <li>(a) Compliant - Letter dated 1 August 2018 from Planning to Elf Farm Supplies endorsing Ms Loneragan and Ms Lawrence as independent environmental auditors.</li> <li>(b) Compliant – refer to Section 3.1 of this report.</li> <li>(c) Compliant - refer to Section 4 of this report.</li> <li>(d) Compliant – this report 5 of this report.</li> <li>(e) Compliant – refer to Section 5 of this report.</li> <li>(f) Compliant – refer to Section 5 and 6 of this report.</li> </ul> </li> </ul>	Compliant
Revision of Plans and Programs				



Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
4	<p>Within three months:</p> <p>(a) the submission of an incident report under condition 5 of schedule 5;</p> <p>(b) the submission of an annual review condition 3 of schedule 5, and</p> <p>(c) the submission of an independent environmental audit under condition 3A of Schedule 5; and</p> <p>(d) the approval of any modification of the Conditions of this approval,</p> <p>The strategies, plans and programs required under this approval must be reviewed.</p>		<p>Note MOD 3 was approved on 16 March 2020.</p> <p>Documentation reviewed:</p> <ul style="list-style-type: none"> <li>Water Management Incident Report, prepared by Elf Farm Supplies on 19 March 2020 relating to excess water from heavy rain on Sunday 17 March.</li> <li>Water Management Incident Report, prepared by Elf Farm Supplies on 18 September 2019 relating to excess water from heavy rain on 17-18 September 2019.</li> <li>Water Management Incident Report, prepared by Elf Farm Supplies on 18 September 2019 relating to excess water from heavy rain on 17-18 September 2019.</li> </ul> <p>Three other water management incidents reports were prepared for events on 7 February 2020 (report dated 10 February 2020), 12 February 2020 (report dated 17 February 2020) and 22 May 2020 (report dated 22 May 2020)</p> <p>Two other incidents were recorded. Diesel spill (December 2019) and dam leak.</p> <p>The Pollution Incident Response Management Plan is currently in revised DRAFT format as it is in the process of being updated / amended after the diesel spill incident.</p> <p>Non-compliance recorded as it has been over 12 months since the diesel spill and 9 months since MOD 3 approved, hence time-frame not met.</p> <p>The auditor notes that some plans are required to be updated in relation to MOD 3 activities, however as MOD 3 has not commenced these are not relevant to this condition.</p>	Non-compliant

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
4A	<p>If necessary to improve the environmental performance of the project or cater for a modification, the strategies, plans and programs required under this approval must be revised, to the satisfaction of the Secretary. Where revisions are required, the revised document must be submitted to the Secretary for approval within six weeks of the review required by Condition 4 of Schedule 5.</p> <p><i>Note: This is to ensure the plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the Project.</i></p>		Note MOD 3 was approved on 16 March 2020, and this condition has not been triggered as MOD 3 has not commenced.	Not triggered
Incident				
5	The Proponent must notify the <b>Secretary</b> and any other relevant agencies of any incident associated with the Project as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent must provide the Secretary and any relevant agencies with a detailed report on the incident.	Interview: WHS/HR Manager advised of one reportable incident the diesel spill.	<p>Documentation viewed:</p> <ul style="list-style-type: none"> <li>Email to the EPA on 11 December 2019 relating to diesel spill incident on Friday 5 December 2019.</li> <li>Email to Planning regarding the diesel spill incident dated 11 December 2019.</li> <li>EPA website – there were no penalty notices issued during this reporting period.</li> <li><i>Elf Farm Supplies Mushroom Substrate Facility – Annual Environmental Management Review, Mulgrave, NSW, Revision 0, September 27 2019.</i></li> <li><i>Elf Farm Supplies Mushroom Substrate Facility – Annual Environmental Management Review, Mulgrave, NSW, Revision 0, 28 September 2020, prepared by Elf Farm Supplies Pty Ltd.</i></li> </ul>	Compliant
Access to Information				

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
6	<p>The Proponent must prepare a Community Consultation Strategy for the Substrate Plant site to address existing and future operations at the Substrate Plant site, including construction of works associated with MOD 1. This Plan must:</p> <ul style="list-style-type: none"> <li>(a) be submitted to the satisfaction of the Secretary within one month from the approval of MOD 1;</li> <li>(b) include procedures for updating the community on the general operation of the site as well as the progress of any construction works; including <ul style="list-style-type: none"> <li>i. a newsletter for the local community which details the <ul style="list-style-type: none"> <li>• construction activities and the expected duration of works;</li> <li>• a general summary of the environmental management to be implemented ; and</li> <li>• telephone number for taking complaints or enquiries in relation to the activities;</li> </ul> </li> <li>ii. the website required by Condition 7 of Schedule 5; and</li> <li>iii. public meetings;</li> </ul> </li> <li>(c) describe the distribution area for the newsletter (at a minimum all residents within 2 km from the site boundary), prepared in consultation with Council; and</li> <li>(d) include procedures for handling and monitoring all complaints received; and detail what management and/or contingency actions will be taken if complaints are received</li> </ul>		This condition related to the previous IEA period (2016).	Closed

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
7	The approved Strategy (as revised and approved by the Secretary from time to time), must be implemented for the life of the Project as soon as written endorsement by the Secretary is received		<p>Documentation viewed:</p> <ul style="list-style-type: none"> <li>Community Consultation Strategy Elf Farm Supplies, 17 May 2016, Revision 1, prepared by Straight Talk.</li> </ul> <p>Section 6.1 – Consultation Approach</p> <p>Tier One – community consultation about Elf Farm Supplies ongoing operations. This involves ongoing provision of information about Elf and its operation and a complaints mechanism. Community information via website and complaints line.</p> <p>Compliance achieved in relation to the complaints line as this was sighted on the Website.</p> <p>Compliance achieved in relation to the current management plans being available on the website.</p> <p>In terms of the website, information was available, such as the previous IEA report and Elf Action Plan for addressing matters raised in the IEA. Section 6.2.1 – Website</p> <p>Sections 6.2.2 and 6.2.4 – These have ceased as construction has been completed in the previous IEA reporting period.</p> <p>Section 6.2.3 Media release issued on completion of the construction works. This has not been completed.</p> <p>Reviewed Elf website and sighted online complaints form under Contact Us, as per Section 6.2.5 of the Community Consultation Strategy.</p>	Non-compliant

Condition	Requirement	Interviews and Inspections	Documentation Viewed / Assessment Status	Compliance Status
8	<p>Within three months from the date of the approval of MOD 3 the Proponent must make the following information (unless commercially sensitive) freely available on a publicly accessible website, as it is progressively required under the approval :</p> <p>(a) all current statutory approvals, including this approval and any modifications to it;</p> <p>(b) plans and programs required under this approval;</p> <p>(c) technical analysis/reports of monitoring results, which have been reported in accordance with the various plans and programs approved under the conditions of this approval;</p> <p>(d) a complaints register, which is to be updated on a monthly basis;</p> <p>(e) a copy of any review as required under Condition 3 of Schedule 5 (over the last five years);</p> <p>(f) updates on the progress of the construction works associated with MOD 1; MOD 2 and MOD 3 and</p> <p>(g) any other material as required by the Secretary</p>		<p>In relation to progressively maintaining the site</p> <p>a) Compliance – sighted current approvals on the website (link to Planning website);</p> <p>b) Non-compliance –Environmental Management Strategy was sighted main strategy compliance (Jan 17), however the appendices had not been updated and dated May 2012.</p> <p>Compliance – the Odour Management Plan, Water Management Plan and Operational Noise Management Plan were located on the website under Approved management plans.</p> <p>c) Compliance – odour and noise monitoring reports were available under Environmental Reports on the website;</p> <p>d) Compliance – Complaints Register located under Environmental Reporting and was last updated on 14 November 2016;</p> <p>e) Compliance – AEMRs for 2019 and 2020 have been uploaded to the website.</p> <p>f) Not applicable – no construction activities occurred during this reporting period.</p>	Non-compliant

# APPENDIX B

## Photographs from Site Inspections

**Photo 1** General plant area including Ductwork for Transferring Process Air to the Odour Control System



**Photo 2** Ducting to Biofilter from Process Area





**Photo 3 Biofilter**



**Photo 4 Newly established Riparian Area**





**Photo 5**    **Enclosed Wastewater Pit**



**Photo 6**    **Emergency Shower and Drainage to Capture Spills from Unloading**



**Photo 7 New Balance Tanks (Water Management) – 2 tanks**



**Photo 8 Two Additional Balance Tanks when La Nino Event Predicted**



**Photo 9 Chemical Spill Kit**



**Photo 10 Dust Minimisation Management Practice**





**Photo 11 Example of Dangerous Goods being stored with bund**



**Photo 12 New concrete area – Dust Management**



# APPENDIX C

## Odour Audit

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# Odour Audit

## Introduction

This section of the report addresses the odour audit of the Project (MOD 1).

SLR has utilised three odour related reports which were prepared during this IEA reporting period by independent teams (two from SLR and one from a Todoroski Air Sciences Pty Ltd):

1. SLR was engaged and completed the Odour Emissions and Biofilter Control System Audit as per Schedule 3, Condition 5(e) in relation to the increase in production as required under Condition 5(c). This Audit report was prepared by an independent team (not related to this IEA team) and the findings documented in SLR Report No. 610.18411-R01-V5.0 dated 1 October 2019.

The overarching objective of the Odour Emissions and Biofilter Control System Audit was to quantify the odour abatement efficiency of the new odour control plant and to assess the effectiveness of all other odour controls on the Substrate Plant site.

SLR conducted the Audit from the 24 October 2018 to 23 November 2018. The audit included consultation with the EPA, Ambient Field Odour (AFO) Surveys and Biofilter and Odour Emission testing within the Elf facility. Additional testing and verification of other odour sources was performed on 10 and 11 July 2019 and 14 August 2019.

2. Todoroski Air Sciences was engaged by Elf Farm Supplies to conducted field odour surveys as per the Odour Management Plan Elf Farm Supplies Substrata Facility (Todoroski Air Sciences, 2017).

The objective of the surveys was to determine the extent of, if any, odours detected off-site associated with Elf Farm Supplies site. Surveys were conducted on 19 February 2019, 8 May 2019, 30 September 2019 and 31 March 2020.

The findings of the surveys are contained in Todoroski Air Sciences, Field Odour Survey – Elf Farm Supplies, 26 May 2020, Job Number 18090878, Final-004 (Odour Survey 4), dated 26 May 2020.

3. SLR was engaged by Elf Farm Supplies to conduct annual odour emission testing on the Biofilter control system serving the Substrate facility in Mulgrave. The purpose was to assure the odour concentration, odour emission rate and odour removal efficiency of the biofilter and compare these against measurements taken in 2018 and those adopted by the Odour Impact Assessment prepared by The Odour Unit dated 28 August 2015.

The IEA audit team have incorporated the results and findings of the reports prepared by SLR and Todoroski Air Sciences into this Odour Audit required under the IEA. The audit included:

- Site visit to determine compliance with the design features and process management actions to minimise odour emissions as outlined in the revised Odour Management Plan.
- Review of documentation to determine if odour concentrations and mass emission rates used in the Odour Impact Assessment were being achieved once the facility was built and operational.
- Review of documentation to determine if facility achieving the desired odour reduction outcomes.

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## Documentation Reviewed

The following relevant technical guidelines were reviewed and considered in the odour audit:

- Department of Environment and Conservation NSW – Technical Framework – Assessment and management of odour from stationary sources in NSW, November 2006
- Department of Environment and Conservation NSW – Technical Notes – Assessment and management of odour from stationary sources in NSW, November 2006

The following Elf documents were reviewed and considered in the odour audit:

- SLR Consulting Australia Pty Ltd, *Odour Emissions & Biofilter Control System Audit, Elf Farm Supplies, Condition 5(e)*, March 2019. SLR Ref: 610.18411-R01-v5.0.
- Todoroski Air Sciences, *Field Odour Survey Elf Farm Supplies*, 26 May 2020, Job Number 18090878.
- SLR Consulting Australia Pty Ltd, *Elf Farm Supplies Biofilter Testing*, September 2020. SLR Ref: 610.30048-R01.
- Letter dated 30 June 2019 from the EPA to Elf Farm Supplies relating to the risk level determined for your licence.
- Letter dated 9 June 2020 from the EPA to Elf Farm Supplies relating to the risk level determined for your licence.
- The Odour Unit, letter to Elf Farm Supplies dated 19 November 2018. Schedule 3, Condition 3B – As Constructed Letter Report.
- Todoroski Air Sciences, *Odour Management Plan Elf Farm Supplies Substrate Facility*, Prepared for Elf Farm Supplies Pty Ltd, 8 February 2018.
- The Odour Unit, *Elf Farm Supplies Pty Ltd, Mushroom Substrate Plant – Modification to Approved Expansion, Odour Impact Assessment, Mulgrave, NSW*. Final Report. 08.01.2015.
- *Air Quality Assessment, Expansion of Substrate Facility, Mulgrave, Elf Farm Supplies*, 9 December 2010, PAE Holmes.

## Audit Findings

### Site Visit – Implementation of Odour Controls

The auditor observed no offensive odour at the boundary of the property when arriving for each site visit. During the site visit on 10 February 2021, the auditor reviewed the existing design features and management practices in place against what was specified in the Odour Management Plan (2018).

**Sections 4.5** and **4.6** of the Odour Management Plan outline the design features for odour control and process management actions **post** MOD 1 completion. Refer to **Table 15** and **Table 16** for audit findings regarding implementation of the features and actions.

**Table 15 Audit Findings of Post MOD 1 Design Features for Odour Control**

Post MOD1 Design Features for Odour Control	Evidence	2020 Finding
Under-cover storage to keep raw materials dry	Sighted	Compliant
Fully enclosed processing areas for all potentially odour-generating processes	Sighted	Compliant
Undertaking pre-wetting in tunnels to replace the pre-wet shed	Sighted	Compliant
Air-under system in Pre-Wet shed and in Phase 1 tunnels to improve aeration during composting process	Sighted	Compliant
Computer controlled fans to maintain optimum air supply and extraction	Sighted fans operation and PLC	Compliant
Extensive instrumentation to monitor compost processing variables	Sighted PLC system	Compliant
Enclosed conveyor to transfer pre-wet material from the pre-wet building to composting tunnels	Sighted	Compliant
Enclosed conveyor transport system for tunnel loading, dispatch loading and transfer to Phase 2 building	Sighted	Compliant
Ammonia scrubbers to remove ammonia from exhaust air from the plant prior to exhausting through the biofilter	Sighted	Compliant
A biofilter to accept air from all buildings, after treatment through the ammonia scrubbers	Sighted	Compliant
Site monitoring network consisting of trigger alarms on operational processes	Sighted PLC system	Compliant
Maintaining storage of critical spares for machinery equipment where possible	Elf Farm Supplies General Manager advised sufficient critical spares available.	Compliant
Enclosing the storage areas and maintaining a slight negative pressure	Refer to Section 6.2.1 in Odour Emissions and Biofilter Control Audit - smoke testing to confirm negative pressure and site observations.	Compliant
Construct and utilise tunnels for the pre-wet phase of substrate production	Sighted	Compliant
Construct the approved emissions treatment plant to a new design incorporating ammonia scrubbers and biofilter, instead of constructing a second bioscrubber and second chimney	Sighted	Compliant
Install extraction ductwork to extract air from various operating areas of the plant and deliver it to the new emissions treatment plant	Sighted	Compliant
Enclose the raw materials courtyard to contain chicken manure dust and enable controlled air extraction from this area	Sighted	Compliant
Extend the existing Phase 2/3 building from 22 to 25 tunnels (approximately 10 metres on its western side) to allow a longer residence time for the substrate in Phase 2/3 processing	NA	Not applicable not constructed
Other minor consequential changes to approved structures and operations	Sighted covering and ductwork of the collection pit and installation of two 100,000 litre tanks to improve water management and minimise use of dam.	Compliant



**Table 16 Audit Findings of POST MOD 1 Process Management Activities to Minimise Odour**

Process Management Actions	Evidence	Finding
Clean up any spillage on a daily basis	Discussions with Elf personnel advised this completed, no old material sighted during audit.	Compliant
Remove solid material from the collection pit screen regularly	Sighted records	Compliant
Desludge the collection pit (if sludge is present) at regular intervals (at least fortnightly)	Sighted records	Compliant
Keep external doors closed when not in use	Sighted	Compliant
Regular visual integrity checks of enclosures (buildings, conveyors ductwork) to identify potential leaks	Elf personnel conduct weekly walk around of the facility	Compliant
Maintain appropriate temperature and oxygen conditions during composting, consistent with the needs of the process, to minimise odour generation	Sighted PLC system within specifications	Compliant
Operate the ammonia scrubbers and biofilter in a manner to maximise their efficiency at removing odorous substances and odour causing substances from the air stream	Sighted SLR Odour Emission and Biofilter Control System Audit report, Section 5.2, biofilter efficiency >95%	Compliant
Minimise as far as practicable the duration of any bypassing of the ammonia scrubbers and biofilter for maintenance; and	Biofilter has not been off line for maintenance as yet.	Compliant
Schedule any necessary bypassing of the ammonia scrubber or biofilter to periods when hot substrate is not being turned and when weather conditions will assist dispersion	Not triggered	Not triggered

## Predicted Odour Levels

A review of the Odour Impact Assessment (OIA) prepared by The Odour Unit (TOU) was undertaken. The findings of the review are summarised below:

- Odour sampling was undertaken for point sources using the “lung method” (Section 4.1) and using an isolation flux hood (IFH) for area sources. The IFH sampling was carried out according to the method prescribed in the United States Environment Protection Agency (US EPA) technical report ‘EPA/600/8-86/008. This method is also defined in Australian Standard AS/NZS4323.4.
- An Odour emission inventory was developed from the sampling and testing program and used in the modelling. Emission sources included in the inventory were:
  - Water Recycle Pit – 2,182 ou.m<sup>3</sup>/s
  - Bale Wetting Area – 20,909 ou.m<sup>3</sup>/s
  - Stable Bedding Area – 575 ou.m<sup>3</sup>/s
  - Biofilter – 20,833 ou.m<sup>3</sup>/s per section (six sections)

The biofilter emission rate was based on 0.045 m/s exit velocity and average odour concentration of 1,000 ou.

- Phase 2/3 building – Modelled using mean odour concentration testing results (Table 3.3 from OIA – refer to **Table 17**)

**Table 17 Phase 2 Odour Concentration Testing Results (from Table 3.3 in OIA)**

Process Stage – Phase 2	Cycle Time (hrs)	Mean Odour Concentration (ou)
Tunnel venting	0-2	2,900
Levelling	2-18	5,090
Warm up pasteurisation	18-26	2,390
Pasteurisation	26-34	2,440
Cool-down (conditioning)	34-42	470
Conditioning #1	42-90	332
Conditioning #2	90-114	91
Cool-down (spawn)	114-148	43

## Measured Odour Levels

### Odour Emissions and Biofilter Control System Audit

As mentioned in **Section 4.1**, a separate team from SLR conducted the Odour Emissions and Biofilter Control System audit. Based on discussions with the EPA prior to commencing that audit, it was agreed that the following locations would be monitored for odour concentrations:

1. Biofilter inlet;
2. Biofilter bed (outlet); and
3. Vents from Phase 2/3 building during Conditioning #1 period. It is noted that Conditions #1 stage is automated and venting to atmosphere will occur (commence) when the required conditions in the individual tunnel have been met. This can occur at any time during the Cool-down Phase, which starts at approximately 34 hours.

Monitoring results from October 2018 and November 2018 are summarised in **Table 18**.

**Table 18 Post MOD 1 Completion Odour Levels**

Location	Mean Actual/ Predicted Odour Emission Concentration (ou)	Predicted Mass Odour Emission Rate (ou.m <sup>3</sup> /s)	Post MOD1 Measured Mean Odour Emission Concentration (ou)	Post MOD1 Measured Odour Emission Rate (ou.m <sup>3</sup> /s)
Biofilter Inlet	NA	NA	9,300	NA
Biofilter outlet	1,000	20,833	165	9,482
Vent – Conditioning #1	332	1,300-1,500	505*	1,776*

\* Based on six odour monitoring results outlined in Table 14 of the Odour Emissions & Biofilter Control System Audit (dated October 2020).

The odour monitoring conducted as part of the Odour Emissions and Biofilter Control System audit showed odour emissions concentrations from the biofilter were significantly lower than the odour emission rate concentration used in the model (predicted).

The biofilter is operating at greater than 95% efficiency based on Average inlet and outlet odour concentrations in odour units or in terms of the Mass Odour Emission Rates of the inlet and outlet.

In regards to the vents, the peak estimated Mass Odour Emission Rate (MOER) (based on Conditioning #1 phase odour concentrations and flow) equates to 692 ou.m<sup>3</sup>/s which is almost 50% of the peak MOER adopted in the OIA (1,349 ou.m<sup>3</sup>/s).

### Annual Biofilter Testing

On 9 July and 23 July 2020 SLR completed the annual testing of the biofilter. This involved measuring the biofilter inlet in parallel with the outlet.

The following is an extract from Section 3 of the report which is a summary of the results and comparison against the OIA and previous measurements.

**Table 19** presents a comparison of odour concentrations and emission rates collected as part of this study and compares these against those assumed by the OIA and collected in 2018. In summary:

- The measured biofilter outlet odour emissions are 84% lower than those assumed by the OIA and 8% lower than those measured in October 2018.
- Peak biofilter outlet odour emissions (based on measured concentrations and maximum flow through the biofilter) are estimated to be 66% lower than those assumed by the OIA and similar to those measured in October 2018.
- The average biofilter outlet odour concentration measured is 150 ou which is 70% lower than the odour concentration assumed by the OIA.
- The biofilter odour removal efficiency is greater than 95%

**Table 19 Summary of Biofilter results and Comparison against OIA and Previous Measurements**

Year	Average Flow through Biofilter during Sampling (m <sup>3</sup> /hr)	Average Odour Concentration (wet) (ou)	Total Biofilter MOER (wet) (ou.m <sup>3</sup> /s)	Biofilter Efficiency	Maximum Flow through Biofilter (m <sup>3</sup> /hr)	Maximum Estimated Biofilter MOER (wet) (ou.m <sup>3</sup> /s)	Change Compared to OIA (%)
OIA		500			390,000	54,168	
2018	204,610	165	9,482	> 95%	390,000	18,073	-67%
2020	189,717	150	8,767	> 95%	402,000	18,576	-66%

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## Odour Emissions and Biofilter Odour Control Audit Findings

SLR completed the odour audit of the facility as per Condition 5(e). Key activities undertaken as part of the audit include:

- Conducting Ambient Field Odour Surveys
- Biofilter odour testing
- Vent odour testing
- Smoke testing (negative pressure)
- Complaints review
- Production data review
- Determination of compliance with Condition 2 of Schedule 3
- Validation of OIA assumptions (it is noted that all the assumptions made by the OIA in deriving all modelled odour emission rates were reviewed and validated)
- Recommendations

The conclusions from Condition 5(e) odour audit were:

*The following conclusions were drawn from the audit conducted;*

- *The maximum odour plume reach beyond the Elf Farm boundary was 150 m. No odours were detected beyond 250m from the Elf Farm boundary.*
- *The sources of odour identified were the Biofilter, Leachate Pond and Composting-manure/Product.*
- *The odour characters perceived during the Ambient Field Odour (AFO) Surveys were characterised as Earthy, Offensive and Chemical. Although Offensive has been used as a general character descriptor, this did not directly translate to the odour having an offensive hedonic tone. SLR observed an overall hedonic tone of marginally offensive (-1) on the 11-point scale (refer to Section 3.1.5) during detection off-site (beyond the Elf boundary).*
- *The Biofilter Outlet complies with the predicted 500 ou from the Odour Impact Assessment (OIA) measuring a maximum of 250 ou.*
- *Character descriptors from the biofilter odour testing did not achieve a forest-floor-ish character. However 10 out of the 11 samples measured did have descriptors of dirt, musty, ashes, mouldy and pine needle notes which are all related to the category of Earthy (refer to Section 3.1.4). Note; odour character is subjective and therefore odour descriptors are based on the panel members personal experience and memories of odours as a referencing scale.*
- *The efficiency of the Biofilter (Inlet vs Outlet) achieved greater than 95% efficiency in reducing the odour concentration.*
- *Venting to atmosphere during the Conditioning #1 stage in November 2018 demonstrated a maximum odour concentration result of 675 ou however SLR was advised that the conditions tested were during trials on the Phase 2 tunnel fan operating parameters. The fan operating parameters were changed back to historical settings in Feb 2019.*
- *Re-Test venting to atmosphere during the Conditioning #1 stage demonstrated the Mass Odour Emission Rates (MOER) were below those modelled in the OIA. SLR measured a peak MOER of 692 ou.m<sup>3</sup>/s compared to the 1,349 ou.m<sup>3</sup>/s adopted by the OIA. The single maximum odour emission rate measured by SLR during the re-test was 1,300 ou.m<sup>3</sup>/s which is also below the OIA modelled rates.*

- *Buildings were tested for negative pressure by visual inspection (smoke testing). A small opening was left on the roller doors or access doors to buildings and smoke was released and observed. All buildings were observed to have negative pressure.*
- *Testing of wet bales was considered not applicable based on the AFO Survey conducted after a light rain event. No odours could be detected from the bales during the survey around the facility.*
- *The Balance Tanks were perceived as not odorous on the days of observation.*
- *The Western Dam was not dry during the AFO Surveys.*
- *No irrigation was occurring on the Leachate Irrigation Field on the days of testing.*

The recommendations from the audit were:

*The audit found the environmental management of the operations, including odour mitigation works (biofilter, negative pressured buildings, etc.) to be effective with no offensive odours from the plant observed beyond the boundary of the site. In order to ensure ongoing compliance with the EPA requirement of managing offensive odours beyond the boundary of the facility, it is recommended that:*

- *Any complaint is investigated as soon as possible so that effective appraisal of the complaint can be carried out by subjective assessment.*
- *The Operational Environmental\Odour management plan is reviewed on an annual basis to ensure that it remains relevant to site operations and to determine whether improvements can be implemented.*
- *Daily boundary odour surveys are undertaken by trained staff in order to identify and mitigate offensive odours from the facility before the odours can lead to exceedances at nearby receptors.*
- *Annual testing of the biofilters is carried out in order to ensure the pollution control system is operating effectively.*

### Independent Field Odour Survey Results

The IEA team reviewed the report prepared by Todoroki Air Sciences (May 2020). As outlined in Section 4.1 Todoroki Air Sciences was engaged by Elf Farm Supplies to conduct field odour surveys as per the Odour Management Plan Elf Farm Supplies Substrata Facility.

The objective of the surveys was to determine the extent of, if any, odours detected off-site associated with Elf Farm Supplies site. Surveys were conducted on 19 February 2019, 8 May 2019, 30 September 2019 and 31 March 2020.

The summary and conclusions from the field surveys were:

*Field odour surveys were conducted on 19 February 2019, 8 May 2019, 30 September 2019 and 31 March 2020.*

*Chicken manure odour detected during the survey on 19 February 2019 was not attributed to the EFS site and the infrequent very slight and slight “musty, earthy, mouldy” odour which may be related to the biofilter is not considered offensive.*

*Manure odours detected during the 8 May 2019 survey were attributed to a local horse stabling yard and while compost odour was detected off-site, it was not attributed to a specific activity or source on-site. In consideration of the frequency, intensity, duration, odour character and location of odours recorded during the survey, the odour detected is considered to not be offensive.*

*A brief period of compost odour was detected during the 30 September 2019 survey. The source of this odour was not able to be determined. Due to the frequency, intensity and duration recorded during the survey, the compost odour detected is considered to not be offensive.*

*Faecal/sewer odours detected during the 31 March 2020 survey were attributed to the local creek resulting from recent heavy flooding. Compost odours detected during this survey may relate to the ELF site however were not considered to be offensive.*

*Overall odours characteristic of the biofilter were only detected off-site during one of the four surveys with only very slight and slight intensities and this the biofilter is considered to be operating effectively.*

## Odour Complaints Review

SLR reviewed the odour complaints for the past five years. In order to assess the impact of the construction, commissioning and operation of MOD1, the following key dates are critical:

- Construction commenced in August 2016.
- Installation, connecting and testing of services, plant and equipment commenced in February 2018.
- Introduction of product took place in May 2018 to enable testing and commissioning of the odour management system.
- Works were complete for MOD1 on 30 June 2018.
- Operations commenced on 1 July 2018, commissioning and fine tuning of the new plant continued through until end of October 2018.

**Table 20** summarises the odour complaints received by Elf Farm Supplies since September 2012.

**Table 20 Summary of Odour Complaints since September 2012**

Complaints Period	Number of Complaints	Number of Wind Direction - Confirmed	Number of Wind Direction - Uncertain	Number of No-Location of Complaint Given	Mushroom Substrate Process		
					Complaints when undertaking Transfer	Complaints when Blending Phase 1	Complaints when Blending PW
Sept-Dec 2012	2	1	1	1	n/a	n/a	n/a
2013	109	43	46	22	22	13	39
2014	68	30	30	9	9	13	17
2015	125	74	32	8	14	44	22
Jan-Sept 2016	35	20	15	-	9	22	8
Sept 2016 – Oct 2017	53	10	21	4	28	12	19
Sept 2017 – Aug 2018	18	0	16	2	0	11	1
Sept 2018 – Aug 2019	1	1	0	0	0	0	0
Sept 2019- Aug 2020	0	0	0	0	0	0	0

Complaints Period	Number of Complaints	Number of Wind Direction - Confirmed	Number of Wind Direction - Uncertain	Number of No-Location of Complaint Given	Mushroom Substrate Process		
					Complaints when undertaking Transfer	Complaints when Blending Phase 1	Complaints when Blending PW
Totals	411	179	161	46	82	115	106

Source: 2020 AMER, Elf Farm Supplies (September 2020)

A review of the Elf Farm Supplies Complaint Register showed that there have been no odour complaints recorded by the company since the middle of November 2017. The EPA have received complaints and advised Elf during the same period. **Table 21** summarises the number of complaints received by each party.

**Table 21 Odour Complaints Since November 2017**

Period	No. of Odour Complaints Received Directly by Elf	No. of Odour Complaints Received by the EPA and Elf advised of the Complaint
14 Nov 2017 to 13 Dec 2017	0	1
13 Dec 2017 to 14 Jan 2018	0	0
14 Jan 2018 to 31 Jan 2018	0	0
February 2018	0	2
March 2018	0	1
April 2018	0	1
May 2018	0	4
June 2018	0	0
July 2018	0	4*
August 2018	0	2*
September 2018	0	0
October 2018	0	0
November 2018	0	1
December 2018	0	0
1 January 2019 to 31 December 2019	0	0
1 January 2020 to 31 December 2020	0	0
1 January 2021 to 28 February 2021	0	0

## Odour Impact Assessment Review

The Odour Impact Assessment undertaken by The Odour Unit modelled three scenarios:

- Scenario 1:** Proposed modification interim stage: Raw Materials Area and Recycled Water Handling Upgrade. The source groups modelled included emission from bale wetting area, stable bedding area and water recycled pit only. The raw materials area at this stage is contained, and that is set to zero emissions.
- Scenario 2 – Biofilter system:** Modelled emissions from the biofilter system at 1,000 odour unit (ou) mean target concentration performance with containment of all other emission areas and sources. This scenario does not include the initial stages of Phase 2, refer to Scenario 3; and

- 
- *Scenario 3* – Phase 2 and 3 Upgrade conditions. Includes emission from the later stages of Phase 2 and all of Phase 3 from the roof exhaust vents from the extended and new Phase 2/3 Buildings. It is assumed emissions during the early stages of the Phase 2 process cycle are directed to the Emissions Plant and Biofilter System. The model scenario represents the exhaust emissions of the worst-case 24 hour snapshot, which was determined to be a total of 26,625 ou.m<sup>3</sup>/s (one hour average) running over a 24 hour period.

The results of the dispersion modelling for the three scenarios were:

- *Scenario 1*: Odour modelling showed exceedance of the 2 ou odour performance criterion for the urban areas to the south-west, west, northwest and northeast of the Facility. There is also an exceedance of the 4 ou to 7 ou criteria for the semi-rural and industrial areas to the east and south-east.
- *Scenario 2*: Odour modelling showed compliance with the 2 ou odour performance criterion *for most of the urban areas* (southwest, west, northwest and northeast) and compliance was achieved with the 4 ou to 7 ou odour performance criteria for the semi-rural and industrial areas to the east and south-east of the facility. It was noted that an urban area to the northwest is within the 2 ou contour. TOU stated the “exceedance shown in part of the urban area to the northwest is not considered to be problematical”.
- *Scenario 3*: Odour modelling showed compliance with the 2 ou for all urban areas and with the 4 ou to 7 ou criteria for the semi-rural and industrial areas.

## Conclusions & Recommendations


Based on the site observations, review of the odour monitoring data, review of the independent odour audit findings, annual biofilter testing, Field Odour Surveys completed by Todoroski Air Sciences, odour complaints, odour impact assessment report and the EPA letters, SLR deems the MOD1 to be achieving the desired objective to minimise odour emissions from the site and achieving the predictions in the Odour Impact Assessment.

The SLR IEA audit team concurs with the SLR odour audit team and Todoroski Air Sciences and would make the same recommendations.



# APPENDIX D

## Independent Auditor Form

Independent Audit Certification Form	
Development Name	Elf Farm Supplies Pty Ltd
Development Consent No.	MP 08_0255 (MOD 1)
Description of Development	Elf produces mushroom compost (substrate) at the site and recently commenced construction of a new odour management system on the site as per MOD 1.
Development Address	108 Mulgrave Road, Mulgrave New South Wales
Operator	As above
Operator Address	As above
Independent Audit	
Title of Audit	Independent Environmental Audit
<p>I certify that I have undertaken the independent audit and prepared the contents of the attached independent audit report and to the best of my knowledge:</p> <ul style="list-style-type: none"> <li>The audit has been undertaken in accordance with the relevant approval condition(s) and in accordance with the auditing standard AS/NSZ ISO 19001:2014 and Post Approval Guidelines – Independent Audits;</li> <li>The findings of the audit are reported truthfully, accurately and completely;</li> <li>I have exercised due diligence and professional judgement in conducting the audit;</li> <li>I have acted professionally, in an unbiased manner and did not allow undue influence to limit or over-ride objectivity in conducting the audit;</li> <li>I am not related to any owner or operator of the development, including where there is a reasonable likelihood or expectation of financial gain or loss to me or to a person to whom I am closely related (i.e. immediately family);</li> <li>Neither I nor my employer have provided consultancy services for the audited development that were subject to this audit except as otherwise declared to the lead regulator prior to the audit; and</li> <li>I have not accepted, not intend to accept any inducement, commission, gift or any other benefit (apart from fair payment) from any owner or operator of the development, their employees or any interested parties. I have not knowingly allowed, not intend to allow my colleagues to do so.</li> </ul> <p>Note:</p> <ol style="list-style-type: none"> <li>The Independent Audit is an environmental audit for the purposes of section 122B(2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in) an audit report produced to the Minister in connection with an environmental authority if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000.</li> <li>The Crimes Act 1900 contains other offences relating to false and misleading information; section 192G (Intention to defraud by false or misleading statement – maximum penalty 5 years imprisonment); sections 307A, 307B and 307C (False or misleading applications/information/document – maximum penalty 2 years imprisonment or \$22,000, or both).</li> </ol>	
Signature	
Name of Lead / Principal Auditor	Sandy Lonergan
Address	120 High Street North Sydney
Email Address	<a href="mailto:slonergan@slrconsulting.com">slonergan@slrconsulting.com</a>
Date	23 September 2021

# APPENDIX E

## Auditors CV and Approval Letter



Neil Cockerell  
Elf Farm Supplies Pty Ltd  
108 Mulgrave Rd  
Mulgrave NSW 2756

Our ref: MP08\_0255-PA-3

11 January 2021

Dear Mr Cockerell

**Agreement of Independent Auditor  
Elf Mushroom Substrate Plant - Auditor Approval Request - MP08\_0255**

I refer to your request (**MP08\_0255-PA-3**) seeking the agreement of the Planning Secretary of the Department of Planning, Industry and Environment (**Department**) of a suitably qualified, experienced and independent audit team to undertake the 2021 Independent Environmental Audit (**IEA**) of Elf Mushroom Substrate Plant approved under MP08\_0255, as modified.

In accordance with Schedule 5, Condition 3A of MP08\_0255 (**the 'Consent'**), the Secretary has agreed to the following audit team from SLR Consulting:

- Sandy Lonegan - lead auditor; and
- Varun Marwaha - air quality expert.

Note that this agreement is subject to the independence of the audit team from the project.

The Department considers that given the number of incidents in the previous 2 years relating to the emergency use of the Western Dam and spill incidents, the 2021 audit team should include an appropriate expert to assess compliance of the site's water management and stormwater system with the relevant conditions of the Consent. Accordingly, the Secretary requires Elf Farm Supplies Pty Ltd to submit resume(s) and statement(s) of independence of the proposed expert(s) at least 4 weeks prior to commencement of the audit.

Please ensure this correspondence is appended to the Independent Audit Report.

The Independent Audit must be prepared, undertaken and finalised in accordance with the requirements of Schedule 5, Condition 3A of the Consent. The Department also recommends consideration be given to the *Independent Audit Post Approval Requirements* (Department 2018) to the extent that it does not contradict Schedule 5, Condition 3A of the Consent. Failure to meet these requirements will require revision and resubmission.

The Department reserves the right to request an alternate auditor or audit team for future audits.

Notwithstanding the agreement for the above listed audit team for this Project, each respective project approval or consent requires a request for the agreement to the auditor or audit team be submitted to the Department, for consideration of the Secretary. Each request is reviewed and depending on the complexity of future projects, the suitability of a proposed auditor or audit team will be considered.

If you wish to discuss the matter further, please contact Alfarid Hussain on 02 9274 6456

Yours sincerely

**Julia Pope**  
**Team Leader Compliance Metro**  
As nominee of the Planning Secretary

# CURRICULUM VITAE



## SANDY LONERGAN

### PRINCIPAL

### Acoustics & Vibration, Asia-Pacific

## QUALIFICATIONS

BAppSC	1993	Bachelor of Applied Science – Environmental Assessment and Management (University of Newcastle)
Dip PM		Diploma in Project Management
		Qualified Lead Auditor for Management Systems Team Audits
		Qualified Lead Auditor for Quality Audits (ISO9001)
		Qualified Lead Auditor of Occupational Health and Safety Management Systems
		Qualified Lead Auditor for Environmental Management Systems (ISO14001)
		Certificate of Wastewater Treatment, Meadowbank TAFE (1994)

## EXPERTISE

- Project management
- Environmental compliance audits
- Development and auditing of environmental management systems to ISO/IEC14001
- Quality, health and safety and ISO17025 auditing
- System development and management to ISO/IEC17025, ISO/IEC9001 and ISO18001
- Due diligence audits
- Environmental management plans
- Environmental monitoring programs

Sandy has worked as an environmental consultant since graduating from the University of Newcastle.

Her experience provides her with the flexibility to analyse non-technical and technical issues in a logical and systematic manner, to distinguish key issues, identify options and put forward appropriate solutions. She has developed into a diligent and effective Project Manager.

Between 2006 and 2011 she was the Operational and Environmental Manager of an emissions testing company. Her primary responsibility was to run the company (project manage), which included but not limited to planning (quoting – price, time, resources), contract management, scheduling, ensuring client requirements were met, communicating with internal and external stakeholders, customer feedback (complaint management).

Her role included developing in-house systems to improve the efficiency of the business whilst at the same time as reducing risk to the business. Sandy also developed, implemented and maintained the company's NATA accreditation to ISO/IEC17025 for the company.

Sandy has experience over 20 years experience in project managing a range of projects across a variety of industries. She has experience across a range of industries, including but not limited to road, rail, coal seam gas, coal, petroleum (refineries), meat industry, food manufacturers and glass manufacturing.

Sandy is a qualified quality, health & safety, environmental auditor to the relevant international standards. She has been previously engaged by NCSI to conduct EMS certification audits on their behalf.

Sandy has over 20 years' experience in conducting environmental audits ranging from compliance to due diligence.

Since joining SLR she was the Project Director of all Air Quality projects and more recently transferred into the Acoustic team to be the Project Manager on key Transport for NSW projects.

Due to her expertise in management systems and auditing skills she was SLR Quality and NATA manager for 8 years, which included conducting and managing the company's internal and external audits in relation to ISO9001 & ISO/IEC17025.

PROJECTS	
	<b>Environmental Audits</b>
Development Consent of Allied Mills (2020)	Independent Environmental Audit of Allied Pinnacle facility at Picton for NSW Department of Planning and Environment
Development Consent of Allied Mills (2019)	Independent Environmental Audit of Allied Pinnacle facility at Kingsgrove for NSW Department of Planning and Environment
Mayfield Concept Plan Concept Approval	Independent Environmental Audit for Port of Newcastle
Elf Farm Supplies Project Approval	Three yearly Independent Environmental Audit for NSW Department of Planning and Environment
Mayfield No. 4 Berth Development Consent	Independent Environmental Audit for Port of Newcastle for NSW Department of Planning and Environment
Development Consent of Allied Mills (2017)	Independent Environmental Audit of Allied Mills facility at Picton for NSW Department of Planning and Environment
Elf Farm Supplies Project Approval	Independent Environmental Audit for NSW Department of Planning and Environment
Fairview and Arcadia Valley Project Areas of Coal Seam Gas	Third Party Compliance Environmental Audit for Santos
Coal Seam Gas Project Development	Environment Protection and biodiversity Conservation Act (EPBC) Audit for Santos for Commonwealth Government
Fairview Project Area	Third Party Compliance Environmental Audit for Santos
Fairview and Arcadia Project Areas	Third Party Compliance Environmental Audit for Santos
Shoalhaven Starches	Annual Environmental Compliance Audits for Department of Planning
OSI International Foods (Australia) Pty Ltd	Due diligence environmental audits for smallgoods processing facilities in Qld, NSW and SA
NSCI	ISO/IEC 14001 Certification audits on behalf of NSCI including Rockdale Beef, Baiada Poultry, Tetra Pak, Panasonic, BlueScope Steel
	<b>HSE Audits</b>
LNG Development Project in PNG	Internal HSE Gap Audit against client specifications for ERIAS

	<b>Project Management</b>
<b>Warringah Freeway Upgrade – Noise Treatment Program - Transport for NSW</b>	Project Manager for Transport for NSW for SLR Consulting – budget for 2020 is approximately \$1,500,000
<b>M6 Stage 1 – Noise Treatment Program – Transport for NSW</b>	Project Manager for Transport for NSW for SLR Consulting – budget for the project is approximately \$250,000
<b>WestConnex – Noise Treatment Program – Transport for NSW</b>	Project Manager for Transport for NSW for SLR Consulting – budget for the project is approximately \$300,000
<b>Freight Noise Abatement Program (FNAP) (2017 – 2018)</b>	Project Manager for Transport for NSW for SLR Consulting – budget for 2017 \$750,000-\$1,000,000
<b>At Property Treatment Program (FY 2017)</b>	Project Manager for Sydney Metro for Transport for NSW – budget \$500,000
<b>Department of Defence Asbestos Management and Dust Monitoring Program</b>	Project Manager for Department of Defence – 12 months – budget \$200,000
<b>Background Ambient Air Monitoring Study, Coal Seam Gas Field, Qld</b>	Project Manager for Santos – 12 months – budget \$250,000
<b>Fairview and Arcadia Valley Project Areas of Coal Seam Gas – Third Party Audit</b>	Project Manager for Santos – budget - \$130,000
	<b>Environmental Management Systems</b>
<b>Fitzroy Tower Services Ltd</b>	Gap Audit against ISO 14001:2015 and supporting updating system to meet revised standard.
<b>Fujifilm Australia Pty Ltd</b>	Development of ISO/IEC 14001 compliant environmental management system
<b>Manildra Flour Mill</b>	Development of ISO/IEC 14001 compliant environmental management system
<b>Shoalhaven Starches</b>	Development of ISO/IEC 14001 compliant environmental management system
<b>MEMBERSHIPS</b>	
<b>Professional membership</b>	Environment Institute of Australia

# CURRICULUM VITAE



## VARUN MARWAHA

### ASSOCIATE

#### Air Quality, Asia Pacific

## QUALIFICATIONS

BEng	2006	Bachelor of Engineering (Chemical), University of Sydney, NSW, Australia
DipPM	2012	Diploma of Project Management, University of New England, Armidale, NSW, Australia

## EXPERTISE

- Air Quality Dispersion Modelling using a Variety of Software Applications
- Emissions Inventory Development and Reporting including National Pollutant Inventory Reporting
- Meteorological and Ambient Air Quality Monitoring & Assessment for Legislative Compliance
- Australian State and Federal Regulatory Compliance – Air Quality
- Opportunities and Constraints Reporting

Varun is an Associate Air Quality Consultant working within the Air Quality team at SLR with over 10 years of environmental and process engineering experience.

Varun has acquired broad environmental experience including air quality and odour, impact assessments, emission inventories (including National Pollutant Inventory), air quality dispersion modelling (including Ausplume, CALPUFF and CAL3QHCR), air quality monitoring (including odour), meteorological monitoring, meteorological modelling (The Air Pollution Model [TAPM] & CALMET), greenhouse gas assessments and overall project management.

He has conducted numerous environmental audits and prepared NPI reports for a range of industries throughout Australia.

Varun is a Certified Practising Project Manager (CPPM) and one of the first few air quality professionals in Australia to become Certified Air Quality Professional (CAQP) and is respected for his contribution to the air quality industry.

## PROJECTS

### Air Quality Impact Assessments (AQIA)

#### Red Hill Waste Management Facility and Resource Recovery Facility - Toodyay Road, Red Hill, WA, Australia

The impact assessment included assessing odour impacts from the existing operations which included a landfill, waste transfer station, leachate evaporation ponds, green waste processing and composting areas and a third party operated landfill gas power station.

In addition, an odour assessment of the proposed Resource Recovery Facility (RRF) was performed. The RRF proposed to process municipal solid waste and produce compost or energy (or both) using a yet to be determined technology. This included assessing the two options of EITHER anaerobic digestion which produces biogas for energy production and compost OR energy from waste (gasification).



<b>Coal Seam Methane Gas (CSG) Compressor Stations, QLD, Australia</b>	Assessment of cumulative and individual air quality impacts due to operations in CSG compressor stations. The compressor stations form a part of the Gladstone Liquefied Natural Gas (GLNG) project.
<b>Proposed Mobile Asphalt Plant, (Inroads Pty Ltd), VIC, Australia</b>	The study involved assessment of air quality impacts (including odour impacts) due to a mobile asphalt plant to be located onsite.
<b>Coal Processing Facility, Centennial Coal, NSW, Australia</b>	The project involved assessment of air quality impacts due to operations in above ground coal processing facility conveniently located to service coal fired power station. This study also included a detailed assessment of the impacts due to operations of other power stations in the region in order to establish a background air quality in the region.
<b>Mount Boppy Gold Project, Polymetals, NSW, Australia</b>	Assessment of air quality impacts due to renewed operations at a historic gold ore mining and processing site.
<b>Proposed Child Care Facility, QLD, Australia</b>	The study included assessment of impacts due to the presence of sand quarry and heavy traffic in the area.
<b>Coal Train Study, (Client Confidential), Central QLD, Australia</b>	Assessment of the predicted air quality impacts due to a rail link supplying coal from a proposed mine to an existing power station. Modelling was used to predict the resulting levels of particles and gases in the environment.
<b>Air Quality Impact Assessment, Proposed Haul Roads (Fortescue Metals Group), WA, Australia</b>	<p>The project involved assessment of two possible options for building haul roads in separate directions. The aim of the project was to determine mine access route from the nearest transport facility.</p> <p>The emissions were quantified and modelled using CALPUFF modelling suite to predict the roadside impacts on the nearest sensitive receptors on each haul road route.</p>
<b>Road Traffic Impact Assessment, Proposed Residential Development NSW, Australia</b>	<p>Roads and Maritime Services - The project involved assessment of roadside impacts on the proposed residential development due to road traffic on a busy motorway. The aim of the project was to determine the maximum impacts and validating against the monitored roadside data.</p> <p>The emissions were quantified and modelled using CAL3QHCR modelling suite to predict the roadside impacts. The project also included assessment of other sources of pollutants in the region for the cumulative assessment. Varun's modelling skills were put to test when integrating predicted results from several modelling suites (CAL3QHCR and CALPUFF).</p>
<b>Air Quality Impact Assessment, Proposed Haul Roads (Fortescue Metals Group), WA, Australia</b>	The project involved assessment of two possible options for building haul roads in separate directions. The aim of the project was to determine mine access route from the nearest transport facility. The emissions were quantified and modelled using CALPUFF modelling suite to predict the roadside impacts on the nearest sensitive receptors on each haul road route.
<b>Air Quality Preliminary Environmental Assessment, Deerubbin Aboriginal Land Council Sand Extraction Project, Maroota NSW, Australia</b>	Preparation of air quality assessment to review the background air quality environment and the potential health impacts associated with the proposed sand mine due to emissions of particulate matter, nuisance dust and crystalline silica.

<b>Air Quality Assessment, Sydney Heritage Fleet, Pyrmont, NSW, Australia</b>	Preparation of a qualitative environmental assessment prepared in support of a DA submission for the Sydney Heritage Fleet, Bank Street, Pyrmont. Report examined existing environmental conditions at the proposed development site referencing validated air quality and meteorological monitoring data and identified the potential sources of emissions to air associated with the construction and operation of the development. A comprehensive range of air quality management measures were also recommended.
	<b>Odour Impact Assessments (OIA)</b>
<b>Proposed Grilled Chicken Shop, NSW, Australia</b>	Assessment of odour impacts from the proposed grilled chicken shop based on the odour emissions from similar existing facilities.
<b>Proposed Waste Water Treatment Plant (WWTP), QLD, Australia</b>	Assessment of odour impacts due to proposed WWTP in order to service a proposed development for 1,500 EP based on odour emissions from similar existing facilities.
<b>Proposed Extension to Sewage Treatment Plant (STP), NSW, Australia</b>	Assessment of odour impacts due to proposed extension to the existing STP based on odour monitoring program conducted on site.
<b>Proposed Extension to Sewage Treatment Plant (STP), Kempsey, NSW, Australia</b>	The aim of the project was to quantify and assess the odour impacts due to the proposed extension to the existing sewage treatment plant facility. The project included desktop research for odour emissions data from existing similar sewage treatment plants and optimising (using dispersion modelling) the location of new sewage treatment plant including the process equipment.
	<b>Greenhouse Gas (GHG) Assessments</b>
<b>CSG Compressor Stations, Santos, QLD, Australia</b>	The project involved estimation of GHG emissions resulting from existing and proposed operations and comparison against published GHG data for QLD and Australia. Also a comparison was performed against total GHG targets for Australia under the Kyoto Protocol.
<b>Mount Boppy Gold Project, Polymetals, NSW, Australia</b>	The project involved estimation of GHG emissions resulting from renewed operations and comparison against published GHG data for NSW and Australia.
<b>Myocum Landfill, NSW, Australia</b>	The project involved estimation of GHG emissions resulting from existing and proposed operations of a landfill used for putrescibles and non putrescibles wastes. The landfill also contained a landfill gas collection system and a flare. Also, a comparison against published GHG data for NSW and Australia was performed.
	<b>Air Quality &amp; Meteorological Monitoring</b>
<b>EPL Diesel Generator Compliance Emissions Testing, Sydney Convention Centre, NSW, Australia</b>	<p>This study involved stack testing from a total 12 diesel engines installed to provide power to Sydney Convention Centre. The pollutants assessed were PM10, NOX, CO and SO2.</p> <p>The testing was conducted over 4 quarters with 3 generators being tested each quarter. The results of the monitoring were progressively submitted to NSW EPA as part of the client's EPL requirement.</p>

<b>Compliance Monitoring (Lead, PM10 and TSP), Sydney Harbour Bridge, NSW, Australia</b>	<p>The project involves repainting the iconic Sydney Harbour Bridge. The process included stripping the old paint (containing lead), preparation of the surface and repainting.</p> <p>The monitoring was conducted for lead concentration in the air along with the concentration of particulate (PM10 and TSP) was required.</p> <p>For lead monitoring, membrane filters were used and for particulate monitoring High Volume air samplers (HVAS) were employed.</p>
<b>Odour Monitoring, McDonalds, NSW, Australia</b>	<p>The project involved exhaust air sampling from McDonalds kitchen in order to quantify odour emissions from the McDonalds kitchen.</p>
<b>Generator Compliance Exhaust Emission Testing, TFS Engineering, Camperdown and Toongabbie NSW, Australia</b>	<p>This study involved stack testing to determine compliance against the concentration limits for a Group C facility as specified in Schedule 6 of the Protection of the Environment Operations (Clean Air) Regulation 2010.</p> <p>The pollutants assessed were PM10, NOX, CO and SO2.</p>
<b>Validation of Odour Monitoring results using Ground Truthing, Red Hill, WA, Australia</b>	<p>The study included validating the monitored odour intensities against modelled odour concentrations.</p> <p>The odour modelling was based on the monitored odour emission rates from a separate monitoring campaign using isolation flux hood (IFH) method.</p>
<b>Proposed Coal Mine Site (Client Confidential), QLD, Australia</b>	<p>Setting up of monitoring equipment at various locations within a proposed mine site. This successful study was consequently utilised to predict the ambient air quality in the region.</p>
<b>Odour Monitoring, Rio Tinto Aluminium, Yarwun, QLD, Australia</b>	<p>The project involved sampling air in the region to quantify odour due to Alumina refinery operations.</p>
<b>Air Quality Trends in South East Queensland – Brisbane City Council, QLD, Australia</b>	<p>Analysis of air quality monitoring data from monitoring stations across south east Queensland. Report was used to form the strategy on toxic air emissions and formed the basis of the new 'Clean Air Strategy for Brisbane – 2009'.</p>
<b>Proposed Iron Ore Mine Site (Client Confidential), SA, Australia</b>	<p>Setting up of dust monitoring equipment at suitable locations for a Greenfield study. The equipment used in this study were dust gauges and a High Volume Air Sampler (HVol). The project also involved management of dust monitoring program and training of relevant personnel.</p>
<b>Meteorological Data Analysis, NSW, Australia</b>	<p>The project involved ongoing meteorological data analysis for a meteorological station setup in a coal mine site. This was done to ensure the quality assurance of the data and the meteorological station.</p>
<b>National Pollutant Inventory (NPI) Reporting</b>	
<b>CS Energy, QLD, Australia</b>	<p>Environmental audit and development of emissions inventory and tools for estimation of emissions from coal fired and natural gas fired power stations.</p>
<b>Gladstone Ports Authority, QLD, Australia</b>	<p>Environmental audit and development of emissions inventory and tools for estimation of emissions from coal terminals used for exporting coal out of Australia.</p>

<b>Queensland Alumina Limited (QAL), QLD, Australia</b>	Environmental audit and development of emissions inventory and tools for estimation of emissions from alumina refinery.
<b>Incitec Pivot, QLD, Australia</b>	Environmental audit and development of emissions inventory for estimation of emissions from ammonium phosphate production plants.
<b>Consolidated Rutile Limited (CRL), QLD, Australia</b>	Environmental audit and development of emissions inventory and tools for estimation of emissions from mining of mineral sands products such as zircon and titanium dioxide.
	<b>Opportunities and Constraints</b>
<b>Rezoning Application, Air Quality Impact Assessment, Central Coast, NSW, Australia</b>	Preparation of an air quality impact assessment, which assessed the existing and proposed air environment in the region of land to be rezoned. The air quality impacts from existing industries including a sand quarry, brick and tile manufacturing factory and an existing sewage treatment plant, and proposed industries including a resource recovery centre, a coal mine and a motorsport precinct.
<b>Opportunities and Constraints Air Quality Assessment, Proposed Wilton Junction Precinct, NSW, Australia</b>	Project management and preparation of a 'high level' assessment for the proposed Wilton Junction Precinct, including extensive consultation with the EPA/OEH and other specialist consultants. The works involved detailed examination of local and regional mitigation measures for construction and operational phases of the Project.
<b>Opportunities and Constraints Assessment, Proposed North Ryde Station Precinct Project, NSW, Australia</b>	<p>Commissioned to undertake air quality assessments (for construction and operational phases) in support of a rezoning application for the North Ryde Station Precinct.</p> <p>Operational - A dispersion modelling study was undertaken to determine the potential constraints for development associated with the operation of a nearby waste transfer station, a neighbouring crematorium, and road traffic exhaust emissions from the existing local road network and as a consequence of the operation of the Project.</p> <p>Construction – A risk-based assessment was undertaken to assess the potential for air quality impacts on nearby sensitive land uses (including residences, commercial and industrial land uses) due to site preparatory works for the Project.</p>
<b>Opportunities and Constraints Assessment, Proposed Catherine Fields (Part) Precinct, Sydney South West Growth Centre, NSW, Australia</b>	Project management and preparation of a Level 1 "screening" assessment and Level 3 Odour Impact Assessment using atmospheric dispersion modelling undertaken to assess the potential for nuisance odour impacts from poultry operations situated nearby a proposed residential development site.
<b>Opportunities and Constraints Assessment, Proposed Leppington Precinct, Sydney South West Growth Centre, NSW, Australia</b>	Commissioned by Worley Parsons on behalf of the DP&I to conduct a Level 1 "screening" assessment of the Leppington Precinct as part of a Land Capability Assessment of the site to inform on the land use planning.

<b>Opportunities and Constraints Assessment, Proposed Emerald Hills Precinct, Sydney South West Growth Centre, NSW, Australia</b>	Performed a site visit to identify potential odour sources within and surrounding the proposed residential development. Project managed and prepared a Level 3 Odour Impact Assessment including assessment of odour impacts from multiple poultry farms surrounding the proposed Precinct and a sewage pumping station and emergency gas vent proposed for placement within the Precinct boundary.
<b>Construction Air Quality Risk Assessment and Mitigation Strategy, Proposed Neighbourhood Retail Centre</b>	Undertook a high level air quality opportunities and constraints assessment for the proposed construction works associated with a proposed retail centre.
<b>Adverse Amenity Impact Assessment, Nicholson Street, Brunswick, VIC, Australia</b>	Undertook a preliminary amenity (dust and odour) assessment for DA submission for a proposed mixed use development to be located on an existing industrial site in Brunswick. Site survey completed and buffer distances examined for each industry type. Risk-based assessment undertaken to determine the potential for dust and odour impacts on the proposed development and mitigation measures recommended.
<b>Environmental Air Quality Assessment, Confidential Project, Erskine Park, NSW, Australia</b>	Works involved the investigation of existing and proposed sources of air pollutants and review of the existing air quality, topography and local meteorology. The constraints and opportunities for the proposed development were identified and recommendations for mitigation provided as relevant.
<b>Environmental Air Quality Assessment, Proposed Carpet Tile Manufacturing Facility, NSW, Australia</b>	Identification of the constraints and opportunities for the proposed development and preliminary assessment of buffer distances applicable to the proposed development. Works including identification of sensitive receptor locations, review of prevailing weather conditions, site topography, and background air quality (i.e. monitoring data and NPI sources), and review of the proposed operations (including scheduled plant and equipment, proposed locations of exhaust stacks etc). Stack emissions monitoring results available for a similar facility were also examined.
<b>Preliminary Environmental Assessment, Air Quality, Hay Street Development, Box Hill, VIC, Australia</b>	Commissioned to prepare an opportunities and constraints assessment in support of a planning permit application and rezoning application (from special use to residential use) for a proposed residential development in Box Hill South. Performed an assessment to determine the potential for air quality impacts on the proposed development due to nearby industrial land uses.
<b>Proposed Industrial Rezoning, Fernbank Creek Road, Noise and Air Quality Assessment, NSW, Australia</b>	Commissioned to undertake an Air Quality Assessment in support of a rezoning application. Assessments were carried out to determine the potential for air quality impacts on existing and future proposed residences in the area due to existing nearby industry and the proposed Fernbank Park industrial estate.
<b>City Bus Layover and Interchange, Canberra, ACT, Australia</b>	The ACT Internal Omnibus Network (ACTION) proposed a new city bus layover in Turner, ACT. SLR was commissioned to conduct an assessment of the air emissions due to the operation of proposed bus layover.

**Baseline Air Quality Impact Assessment, Carrow Project, Coffey Environments / Eyre Iron, SA, Australia**

Project manager for the design and implementation of a baseline air quality monitoring program to measure regional background concentrations of dust and particulate with the aim of identifying potential constraints on proposed operations. Preparation of baseline air quality and constraints assessment.

## MEMBERSHIPS

<b>Member</b>	Clean Air Society of Australia and New Zealand (CASANZ)
<b>Member</b>	Member of Engineers Australia (EA)
<b>Member</b>	Institute of Chemical Engineers (IChemE)
<b>Certified</b>	Air Quality Professional (CAQP), CASANZ
<b>Certified</b>	Practicing Project Manager (CPPM), UNE

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