

# INDEPENDENT ENVIRONMENTAL AUDIT

Prepared for:

Elf Farm Supplies Pty Ltd  
PO Box 615  
WINDSOR NSW 2756

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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

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## 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.

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## 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.

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## 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 all 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, 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;
- 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 Mushroom Substrate Plant, Mulgrave, Environmental Management Strategy, Report 134R2, May 2012, 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:CFC5, 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 2019.

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.


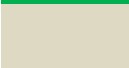


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# APPENDIX A

## 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>Elf Farm Supplies Mushroom Substrate Facility – Annual Environmental Management Review, Mulgrave, NSW, Revision 0, September 27 2019, prepared by Elf Farm Supplies Pty Ltd.</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.</li> <li>EPA letter dated 30 June 2019, Licence 6229 – Administrative fee. Risk level determination in this letter was Environmental management category C and Overall environmental risk level – Level 2.</li> <li>EPA letter dated 30 June 2019, Licence 6229 – Administrative fee. Risk level determination in this letter was Environmental management category A and Overall environmental risk level – Level 1.</li> <li>EPA Licensing guidelines – Environmental risk levels – July 2016.</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. MOD 1 construction completed on 3 October 2018. MOD 3 has not commenced. Interview – Administration Manager</p>	<p>Documentation viewed:</p> <ul style="list-style-type: none"> <li>• Elf Farm Supplies, Staged Development of Mushroom Substrate Plant, Construction Environmental Management Plan, Revision No.1 July 2016, Prepared By Perram &amp; Partners.</li> <li>• 2015 EA Titled Mushroom Substrate Plant Modification to Approved Project, Environmental Assessment (Perram &amp; Partners, February 2015)</li> </ul> <p>Other documents sighted included:</p> <ul style="list-style-type: none"> <li>• Elf Farm Supplies Pty Ltd and Elf Mushrooms Pty Ltd Mushroom Expansion in Western Sydney, Preliminary Environmental Assessment, Perram &amp; Partners, November 2008 121R1.</li> <li>• Elf Farm Supplies Mushroom Substrate Facility – Annual Environmental Management Review, Mulgrave, NSW, Revision 0, September 27 2019, prepared by Elf Farm Supplies Pty Ltd.</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.</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, Elf Farm Supplies, Staged Development Of Mushroom Substrate Plant, Construction Environmental Management Plan, Revision No1, 137R1.</li> </ul> <p>Section 2.2.2 states 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.</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>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>Field Odour Survey – Elf Farm Supplies – 21 March 2019 Job Number 18090878, 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 filter, but this could not be reasonably established. Regardless, this odour could not be described as offensive.”</li> <li>Field Odour Survey – Elf Farm Supplies – 21 March 2019 Job Number 18090878, 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 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:</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 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; (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.</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>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>Elf Farm Supplies Mushroom Substrate Facility – Annual Environmental Management Review, Mulgrave, NSW, Revision 0, September 27 2019, prepared by Elf Farm Supplies Pty Ltd.</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.</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>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> </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>• Elf Farm Supplies Mushroom Substrate Facility – Annual Environmental Management Review, Mulgrave, NSW, Revision 0, September 27, 2019. Section 4.5 relates to energy efficiency monitoring analysis, while Section 5 is the energy data trend analysis section.</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. Section 4.5 relates to energy efficiency monitoring analysis and Section 5 is the energy data trend analysis.</li> <li>• Mushroom Substrate Plant, Mulgrave, Environmental Management Strategy, Report 134R2, 16 January 2017, Version 01.2. 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 must;</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) Ensure straw bales stored in the open bale storage area are: <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), 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>• Mushroom Substrate Plant, Mulgrave, Environmental Management Strategy, Report 134R2, Version 01.2, 16 January 2017. 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>POL0002.05, Company Policy and Commitment, Use of Hazardous Substances Policy, Revision No: 0, Date 08.05.2015</li> <li>Elf Farm Supplies Pty Ltd, EFS.OHS.053, Workplace Substances Procedure, reviewed date: 17.11/2016</li> <li>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.</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
<b>Waste</b>				
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
<b>Bunding</b>				
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 Storage and handling liquids: Environmental Protection – Participant's Manual.	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>Environmental Property Services (EPS), Pollution Incident Response Management Plan, prepared for Elf Farm Supplies, Reference No. 11131. July 2018 Section 5.5 Chemical Spill Procedure, Appendix 5 – Chemical Spill Procedure. Appendix 12, Safety Equipment Location Map.</li> <li>POL0002.05, Company Policy and Commitment, Use of Hazardous Substances Policy, Revision No: 0, Date 08.05.2015</li> <li>Elf Farm Supplies Pty Ltd, EFS.OHS.053, Workplace Substances Procedure, reviewed date: 17.11.2016</li> </ul>	Compliant
<b>Soil and Waster - Discharge Limits</b>				

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>Elf Farm Supplies Mushroom Substrate Facility – Annual Environmental Management Review, Mulgrave, NSW, Revision 0, September 27 2019. No water pollution incidents reported.</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 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>• Elf Farm Supplies Mushroom Substrate Plant, Mulgrave, Water Management Plan, 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. 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.</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>Elf Farm Supplies Mushroom Substrate Plant, Mulgrave, Water Management Plan, 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>• Elf Farm Supplies Mushroom Substrate Plant, Mulgrave, Water Management Plan, 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>• Elf Farm Supplies Mushroom Substrate Plant, Mulgrave, Water Management Plan, 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: 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 42</td><td>43 42</td></tr><tr><td>R2- Mulgrave Industrial area</td><td>42 44</td><td>37 41</td></tr><tr><td>R3 - 2 Railway Road, Mulgrave</td><td>44</td><td>42</td></tr><tr><td>R4- 126 Mulgrave Road, Mulgrave</td><td></td><td></td></tr><tr><td>R5- Chisholm Place, South Windsor</td><td></td><td></td></tr></table> <p>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</p>	Receiver/Location	Day LAeq(15 minute)	Night LAeq(15 minute)	R1 - 46 Mulgrave Road, Mulgrave	43 42	43 42	R2- Mulgrave Industrial area	42 44	37 41	R3 - 2 Railway Road, Mulgrave	44	42	R4- 126 Mulgrave Road, Mulgrave			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 42	43 42																				
R2- Mulgrave Industrial area	42 44	37 41																				
R3 - 2 Railway Road, Mulgrave	44	42																				
R4- 126 Mulgrave Road, Mulgrave																						
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="3">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>Operation</td><td>All days</td><td>Anytime</td></tr></table>	Activity	Day	Time	Construction	Monday – Friday	7.00am – 6.00pm	Saturday	8.00am – 1.00pm	Sunday and Public Holidays	Nil	Operation	All days	Anytime		<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															
Operation	All days	Anytime															
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>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 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>• Elf Farm Supplies Mushroom Substrate Facility – Annual Environmental Management Review, Mulgrave, NSW, Revision 0, September 27 2019. No complaints relating to lighting received.</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 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>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."</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	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.	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>Elf Farm Supplies Pty Ltd, Mushroom Substrate Plant, Mulgrave, Environmental Management Strategy, Report 134R2, 16 January 2017. Perram &amp; Partners.</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>Substrate Plant Mulgrave Operational Noise Management Plan, 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>Elf Farm Supplies Mushroom Substrate Plant, Mulgrave, Water Management Plan 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>Elf Farm Supplies Mushroom Substrate Facility – Annual Environmental Management Review, Mulgrave, NSW, Revision 0, September 27 2019, prepared by Elf Farm Supplies Pty Ltd.</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.</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 Instrucment 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>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.</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>Elf Farm Supplies Mushroom Substrate Facility – Annual Environmental Management Review, Mulgrave, NSW, Revision 0, September 27 2019.</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.</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 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. 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>
<b>Development Consent of Allied Mills (2020)</b>	Independent Environmental Audit of Allied Pinnacle facility at Picton for NSW Department of Planning and Environment
<b>Development Consent of Allied Mills (2019)</b>	Independent Environmental Audit of Allied Pinnacle facility at Kingsgrove for NSW Department of Planning and Environment
<b>Mayfield Concept Plan Concept Approval</b>	Independent Environmental Audit for Port of Newcastle
<b>Elf Farm Supplies Project Approval</b>	Three yearly Independent Environmental Audit for NSW Department of Planning and Environment
<b>Mayfield No. 4 Berth Development Consent</b>	Independent Environmental Audit for Port of Newcastle for NSW Department of Planning and Environment
<b>Development Consent of Allied Mills (2017)</b>	Independent Environmental Audit of Allied Mills facility at Picton for NSW Department of Planning and Environment
<b>Elf Farm Supplies Project Approval</b>	Independent Environmental Audit for NSW Department of Planning and Environment
<b>Fairview and Arcadia Valley Project Areas of Coal Seam Gas</b>	Third Party Compliance Environmental Audit for Santos
<b>Coal Seam Gas Project Development</b>	Environment Protection and biodiversity Conservation Act (EPBC) Audit for Santos for Commonwealth Government
<b>Fairview Project Area</b>	Third Party Compliance Environmental Audit for Santos
<b>Fairview and Arcadia Project Areas</b>	Third Party Compliance Environmental Audit for Santos
<b>Shoalhaven Starches</b>	Annual Environmental Compliance Audits for Department of Planning
<b>OSI International Foods (Australia) Pty Ltd</b>	Due diligence environmental audits for smallgoods processing facilities in Qld, NSW and SA
<b>NSCI</b>	ISO/IEC 14001 Certification audits on behalf of NSCI including Rockdale Beef, Baiada Poultry, Tetra Pak, Panasonic, BlueScope Steel
	<b>HSE Audits</b>
<b>LNG Development Project in PNG</b>	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)
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