Seventh Sense
Sustainability Consultants

Independent Odour Audit Report

Yennora Liquid Waste Treatment Plant (SSD-10407)

April 2024

7thsense.com.au

Document Control

Description	Name/Title	Signature	Date
Prepared by	**Ibrahim Awad**, Lead Auditor		5/04/24

Amendment Record

Rev. No.	Rev. Date	Page/ Section No.	Description of Amendment	Approved by	Effective Date
V2	28/3/24	Table 1	Correct reference numbers	Ibrahim Awad	28/3/24
V3	5/4/24	Table 1	Consideration of auditee response to audit report	Ibrahim Awad	5/4/24

Document Distribution List

Copy	Location	Custodian Name	Signature	Date Received
Master (Hard Copy)	General Manager's Office, Enviroservices Pty Ltd. Yennora Liquid Waste Treatment Plan	Simon Saba		
Master (Electronic Copy)	General Manager's Office, Enviroservices Pty Ltd. Yennora Liquid Waste Treatment Plan	Simon Saba		
Copy 1				

CONTENTS

EXECUTIVE SUMMARY 5

1. INTRODUCTION 6

1.1 Project overview 6

1.2 Approval Requirements 11

1.3 The Audit Team 11

1.4 The Audit Objectives 11

1.5 Audit Scope 12

2. AUDIT METHODOLOGY 14

2.1 Audit process 14

2.2 Audit Process Detail 15

2.2.1 Audit initiation and scope development 15

2.2.2 Preparing Audit Activities 15

2.2.3 Site Personnel Involved 16

2.2.4 Meetings 16

2.2.5 Interviews 16

2.2.6 Site inspection 17

2.2.7 Document review 17

2.2.8 General Audit Findings 18

2.2.9 Compliance evaluation 18

2.2.10 Evaluation of post approval documentation 19

2.2.11 Completing the audit 19

3. AUDIT FINDINGS 19

3.1 Approvals and documents audited, and evidence sighted 19

3.2 Non-compliance, Observations and Actions 20

3.3 Adequacy of Environmental Management Plans, sub-plans and post approval documents 33

3.4 Summary of notices from agencies 35

3.5 Complaints 35
3.6 Incidents 35
3.7 Actual versus predicted impacts 35
4. CONCLUSION 37
APPENDIX A: AUDIT CHECKLIST 38
APPENDIX B: AUDITOR APPROVAL 71

EXECUTIVE SUMMARY

This Independent Odour Audit Report has been prepared by Seventh Sense Sustainability Consultants (7th Sense) who was engaged by Enviro Waste Services Group Pty Ltd (EnviroServices) to conduct this audit for the early operational phase of the Yennora Liquid Waste Treatment Plant (LWTP), SSD-10407.

The proposed development (the development) comprises two components, being:

• expansion and continued operation of an existing liquid waste treatment plant (LWTP) at 14 Kiora Crescent, receiving 100,000 tonnes per annum (tpa) of industrial liquid waste; and

• operation of a waste processing facility (WPF) at 16 Kiora Crescent, receiving 10,000 tpa of liquid product waste, liquid food waste, makeup, shoes, and clothes.

The requirement for this independent odour audit is set out in Condition of Consent (CoC) B24 'Odour Management' and the scope of the audit includes all air quality and odour management related conditions triggered at the time of the audit, as well as any commitments required under the Odour and Air Quality Management Plan (OAQMP) /sub-plans, as well as overall odour performance.

Operation of this SSD is reported to have commenced on 23 October 2022.

The on-site audit inspection was conducted on 2 November 2023 and resulted in the finding of four (4) non-compliances and two (2) observations. These relate to:

- Technical non-compliances with respect to B20, B21, B22 and B24;
- Technical observations with respect to B19 and B23.

In general, the audit and site inspection found that the proponent had overlooked or failed to comply with several of their air quality and odour management responsibilities under the consent and had relied too heavily upon their consultant to fulfil obligations for which they have core responsibility. These oversights were mostly administrative in nature and fortunately have not resulted in any major adverse odour/environmental impacts or outcomes.

The audit also found that the main consultant engaged by the proponent had made incorrect descriptions of various elements of the proponent's odour treatment system in the Air Quality and Odour Management Plan (AQOMP) which had then being reflected in the consent and relevant agency consultations and post approval documentation.

The auditees were cooperative and helpful throughout the audit and were responsive and committed to implementing the recommended corrective actions immediately following the on-site inspection, and to making improvements in line with noted observations and recommendations.

1. INTRODUCTION

1.1 Project overview

The Yennora Liquid Waste Treatment Plant (LWTP) is located at 14-16 Kiora Crescent, Yennora and is operated by Enviro Waste Services Group Pty Ltd.

The site is located in the Cumberland City Council area 22 kilometres (km) west of the Sydney CBD and covers approximately 1,688m2 of IN1 zoned land under the Holroyd Local Environmental Plan. The nearest residential receivers are located in Yennora, approximately 330m east of the site and the Yennora Public School located 335m to the south-east.

Prior to the commencement of operation under the current development consent SSD-10407, the plant had received up to 10,000 tonnes per annum of waste including out-of-date liquid product/food waste for treatment and/ or disposal. The total waste storage at any one time was limited to 100 tonnes.

Figure 1-1: Location of Yennora Liquid Waste Treatment Plant (Source: Benbow Environmental, 2023).

The Yennora LWTP facility receives liquid wastes including:

- Residues from industrial waste treatment/disposal operations – landfill leachates (N205);
- Liquid waste material in glass, plastic or aluminium containers;
- Surface active agents (surfactants) containing principally organic constituents and which may contain metals and inorganic materials (M250);
- Waste oil/hydrocarbons mixtures/emulsions in water (J120);
- Sewage sludge & residues (K130); and
- Grease trap waste (K110).

The process, operation and activities of the plant include the following:

- Unloading and loading of liquid waste from tanker trucks;
- Filtration of solid debris;
- Separation of solids;
- Separation of oils and sludge; and
- Separation of oil and water.

Figure 1-2 below shows the site plan and layout and process map (including tank quantities).

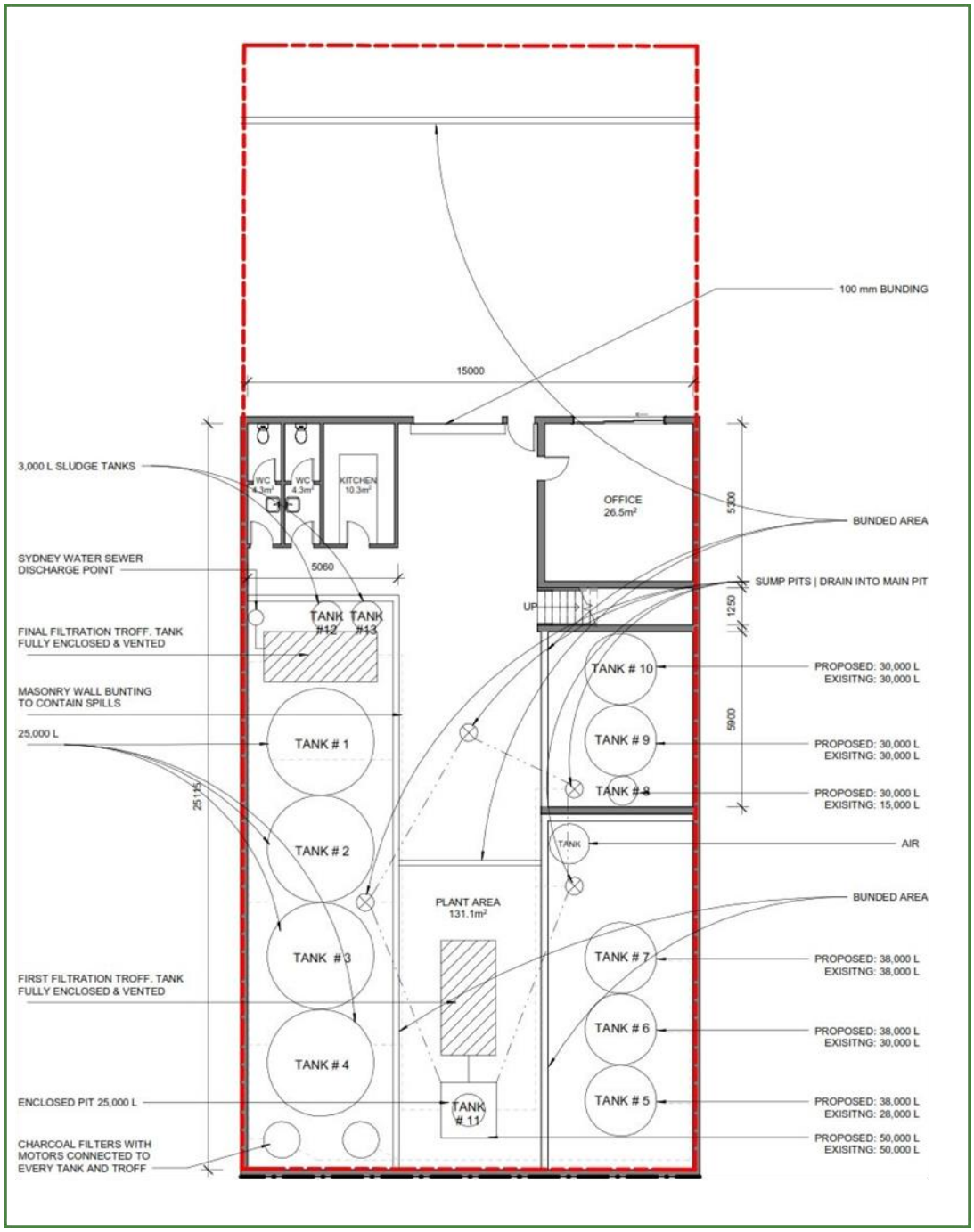


Figure 1-2: Floor plan for Yennora LWTP (Source: AQOMP, Benbow Environmental, 2023)

The incoming and out-going waste types according to this SSD-10407 and Air Quality and Odour Management Plan (AQOMP, April 2023) are detailed below:

Incoming waste type (tonnes per annum)

- Out-of-date liquids (food waste): 6,700

- Shampoo/liquid soaps: 1,600
- Shoes: 200
- Clothes: 250
- Makeup: 1,250

Total: 10,000

Outgoing waste type (tonnes per annum)

- Plastic: 950
- Cardboard: 950
- Aluminium: 950
- Liquid food waste: 4,600
- Liquid waste (other – for processing at 14 Kiora Crescent): 1,100
- Steel: 450
- Timber: 250
- Glass: 450
- Cloth: 200
- General solid waste: 100

The waste treatment and management process for each distinct waste stream has been described in the AQOMP (April, 2023) and is summarised below:

- Out-of-date, expired or perishable liquid food waste (such as fruit juices, soft drinks, shampoos and soaps) are divided by waste stream (food waste/liquid soaps etc.) and fed into a shredder to separate liquids from packaging.
- Shredded packaging containers (cardboard, plastics, aluminium) are collected and recycled.
- Liquid food wastes are collected into intermediate bulk containers (IBCs) and stored at 16 Kiora Crescent.
- Liquid soap wastes are collected and sent to 14 Kiora Crescent for further processing.
- IBCs containing food waste are transported off site to be used in irrigation practices for agricultural properties/farmlands. The contents of the IBCs would comply with the relevant resource recover exemptions/orders and guidelines.

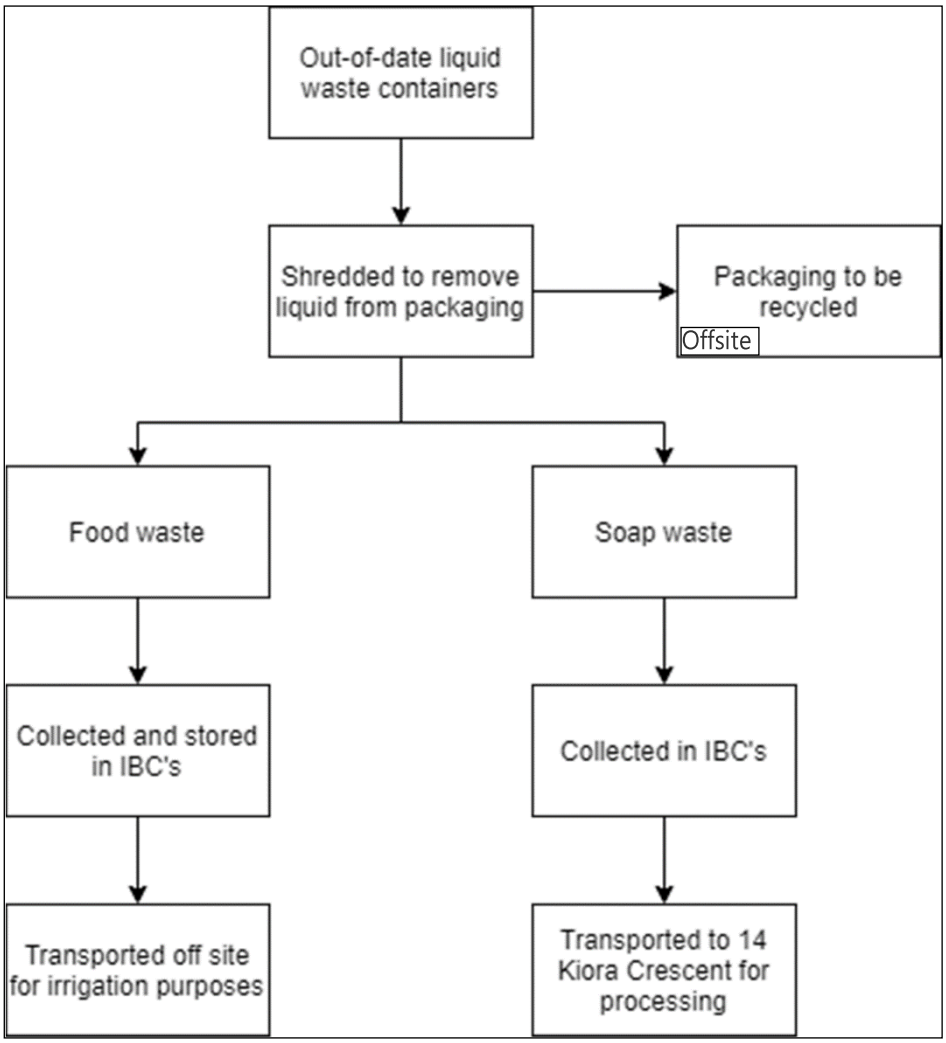


Figure 1-3: Process diagram of liquid product waste treatment **(Source: AQOMP, Benbow Environmental, 2023).**

Under the subject SSD-10407, the operator was granted approval to expand their operations to process 110,000 tonnes per annum and store a maximum quantity of 477 tonnes on site. The limits of the approval are as follows:

- Receipt and processing of no more than 100,000 tonnes of industrial liquid waste per year;
- Receipt and processing of no more than 10,000 tonnes combined of liquid product waste, liquid food waste, shoes, make up or clothes per year;
- Storage of no more than 377 tonnes of liquid waste at any one time (industrial liquid waste and liquid product waste) at the Liquid Waste Treatment Plant (LWTP) at 14 Kiora Crescent;

- Storage of no more than 100 tonnes (combined) of liquid product, liquid food waste, shoes, make up or clothes at any one time at Waste Processing Facility (WPF) at 16 Kiora Crescent; and
- No dairy products, including out-of-date dairy products can be received at the site.

The air quality and odour treatment system and mitigation measures on site are described in the AQOMP to include:

- Biotrickling filter system;
- Vertical dispersion stack, 6 m above roofline;
- Indoor operations (enclosure roller doors); and
- Deodoriser.

1.2 Approval Requirements

Condition of Consent (CoC) B24 of SSD-10407 sets out the requirement for undertaking this Independent Odour Audit, and B24(a) sets out the requirement for the independent auditor to be appropriately qualified and experienced and approved by the Planning Secretary. Enviro Waste Services sought and was granted approval from DPE for their proposed Independent Odour Auditor on 4 October 2023. A copy of the approval is provided in Appendix B.

1.3 The Audit Team

In accordance with CoC B24 and Section 3.1 of the IAPAR, Independent Auditors must be suitably qualified, experienced, and independent of the Project, and appointed by the Planning Secretary. The approved Auditor is:

> Ibrahim Awad (Lead Auditor): BSc, MEngSc, MEnvLaw, Exemplar Global Certified Lead Environmental Auditor (Certificate No 110720). Ibrahim has 25 years of experience in environmental and compliance auditing and is also a DPE approved Independent Environmental Auditor on major projects in NSW.

1.4 The Audit Objectives

The objective of this Independent Odour Audit is to satisfy SSD-10407 CoC B24 and B25 which state that:

B24. The Applicant must carry out an Odour Audit of the development no later than six months after the commencement of operation of the development. Division 9.4 of Part 9 of the EP&A Act applies to this audit which is for the purpose of auditing the development against the odour impact predictions of the development. The audit must: (a) be carried out by a suitably qualified, experienced and independent person(s), whose appointment has been endorsed by the Planning

Secretary; (b) audit the development in full operation; (c) include a summary of odour complaints and any actions that were carried out to address the complaints; (d) assess the operation against odour impact predictions in the EIS and RtS; (e) review design and management practices in the development against industry best practice for odour management; and (f) include an action plan that identifies and prioritises any odour mitigation measures that may be necessary to reduce odour emissions. Note: The Odour Audit may be prepared so that it addresses the requirements of this consent and the EPL for the development.

B25. Within six months of commissioning of the Odour Audit required by Condition B24, or as otherwise agreed by the Planning Secretary, the Applicant must submit a copy of the Odour Audit report to the satisfaction of the Planning Secretary, together with the Applicant's response to any recommendations contained in the Odour Audit report.

Independent Audits of the development must be conducted and carried out in accordance with the DPE Independent Post Approval Requirements (IAPAR). The IAPAR sets out the scope, methodology and reporting requirements for each Independent Audit.

This Independent Odour Audit seeks to fulfill the requirements of CoC B24 and B25, verify compliance with the relevant CoCs and assess the effectiveness of environmental management on the Project using the scope, methodology and reporting requirements from the IAPAR.

1.5 Audit Scope

This Independent Odour Audit relates to the Project works and operations between the granting of consent of SSD-10407 on 26 November 2021 and the completion of the site inspection on 2 November 2023 (the audit period).

The scope of the Independent Odour Audit comprises:

- an assessment of compliance with:
- all air quality and odour management related conditions of consent for the period from the commencement of operations to the conduct of the site audit;
- all post approval and compliance documents prepared to satisfy the above conditions of consent, including an assessment of the implementation of Air Quality and Odour Management Plan; and
- all environmental licences and approvals applicable to the development including environment protection licences issued under the Protection of the Environment Operations (POEO) Act 1997.
- a review of the environmental performance of the development, including but not necessarily limited to, an assessment of:
- actual impacts compared to predicted impacts documented in the environmental impact assessment;
- the physical extent of the development in comparison with the approved boundary;

- incidents, non-compliances and complaints that occurred or were made during the audit period;
- the performance of the development having regard to agency policy and any particular environmental issues identified through consultation carried out when developing the scope of the audit, and
- feedback received from the Department, and other agencies on the environmental performance of the project during the audit period.

- a high-level assessment of whether the Air Quality and Odour Management Plan is adequate, and
- any other matters considered relevant by the auditor or the Department, taking into account relevant regulatory requirements and legislation, knowledge of the development's past performance and comparison to industry best practices.

2. AUDIT METHODOLOGY

2.1 Audit process

The Independent Odour Audit was conducted in accordance with AS/NZS ISO 19011.2019 - Guidelines for Auditing Management Systems and the methodology set out in the Department's IAPAR. An overview of the audit activities, as specified in AS/NZS ISO 19011, is presented in Figure 2.

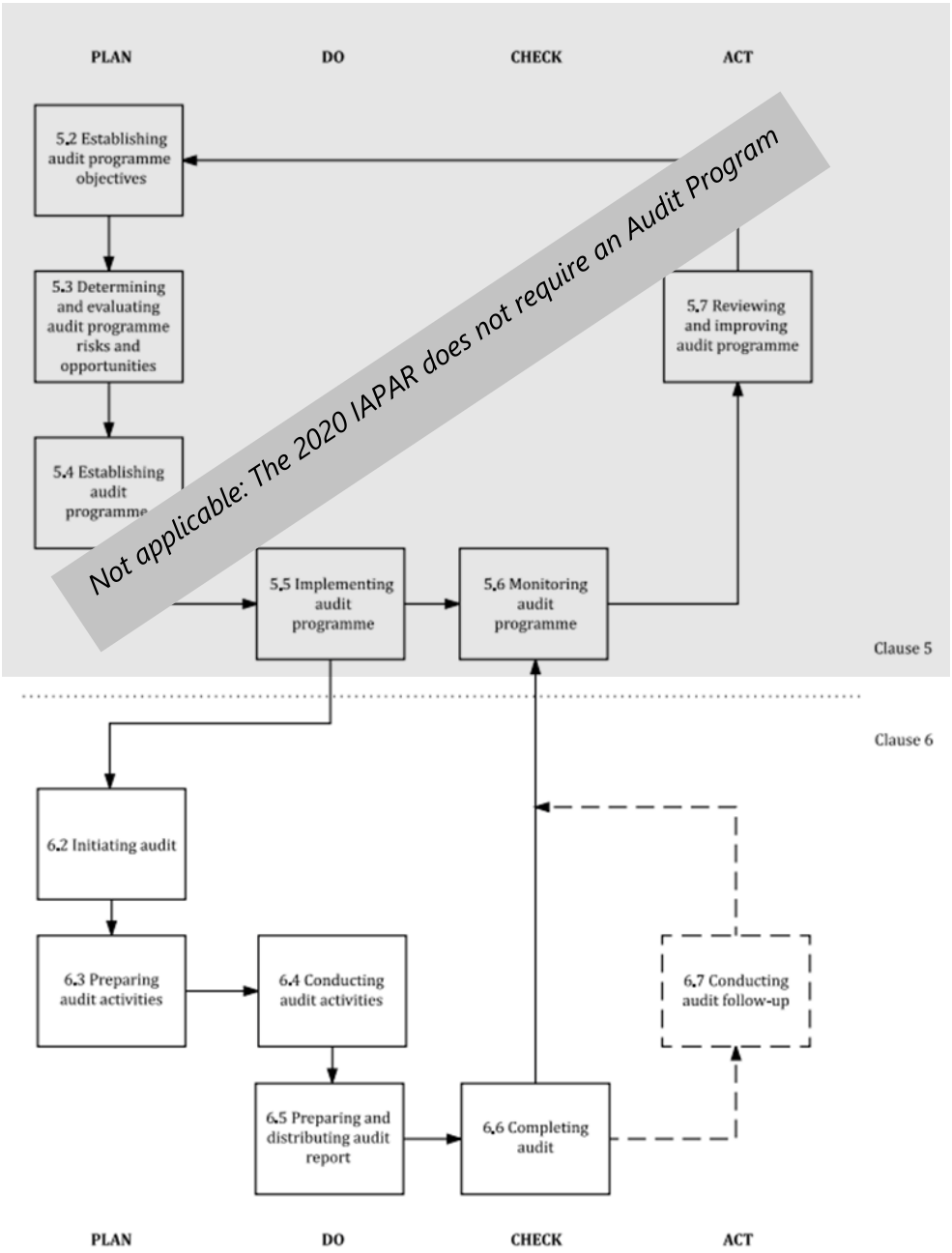


Figure 2: Audit activities overview (modified from AS/NZS ISO 19011). Subclause numbering refers to the relevant subclauses in the Standard.

2.2 Audit Process Detail

2.2.1 Audit initiation and scope development

Prior to the commencement of the audit the following tasks were completed:

- Establish initial contact with the Auditee.
- Confirm the audit team and seek the Department's approval for nominated auditor.
- Confirm the audit purpose, scope and criteria.
- Consult with the Department on the audit scope.

DPE's Industry Assessments Team (Sydney Region) was consulted on 31 October 2023 to obtain their input into the scope of the Independent Odour Audit in accordance with Section 3.2 of the IAPAR. The consultation records are presented in Appendix C. A summary of the key issues and areas of focus raised by DPE in their email dated 31 October 2023 are presented in Table 1.

Table 2.2-1: Key issues and areas of focus raised during DPE consultation

Ref No.	Issues and Focus	How Addressed
1	NSW Planning confirmed (in their email dated 31 October 2023) that the auditor can use/reference the odour sampling data / report provided by Benbow through their air quality contractor Ektimo (conducted on 22 Nov. 22) and that there is no need to conduct new odour sampling for the purpose of this audit.	The auditor has used the results of the air testing / sampling in the said documents in the assessment of compliance, and referenced these in the audit findings in this report.
2	NSW Planning would like the auditor to assess the findings with respect to the odour exceedances recorded in the above odour sampling/report and compare against those predicted in the EIS/RfS, and provide comment/recommendations.	The auditor has assessed the odour exceedances recorded and compared against those predicted in the EIS/RfS and provided related comment and recommendations in in the Audit Findings Table 3 and Section 3.7 'Actual versus predicted impacts' of this report.
3	The auditor confirmed that NSW Planning supports the auditor approaching Council and the EPA to provide any information with respect to any complaints, incidents and/or notices/penalties relating to odour from this plant.	The auditor has consulted both the EPA and Cumberland City Council (14/11/23 and 17/1/24 respectively) with respect to any complaints, incidents and notices/penalties and has documented the outcomes of this consultation in the Audit Findings, Table 3.

2.2.2 Preparing Audit Activities

The Auditor performed a document review, prepared an audit plan, and prepared work documents (audit checklists) and distributed to the auditee's Project team in preparation for the Independent Odour Audit.

The primary documents reviewed prior to and after the site visit are as follows:

- Development consent SSD-10407, 26 November 2021
- Environmental Impact Statement – Yennora Liquid Waste Treatment Plant, 14-16 Kiora Cresent, Yennora, Rev 4, November 2020.
- Response to Submissions (RtS) - Yennora Liquid Waste Treatment Plant, 14-16 Kiora Crescent, Yennora (SSD 10407), Rev 2, 16 February 2021.
- Air Quality and Odour Management Plan (AQOMP) Rev. 2 – Benbow Environmental, 28 April 2022.
- EPA Licence 20444, Variation, August 2022.
- DPE Assessment Report SSD-10407 Recommendation.

2.2.3 Site Personnel Involved

The on-site audit activities took place on 2 November 2023. The following personnel took part in the audit along with the auditor:

- Simon Saba, Group General Manager, Enviro Waste Services Group.
- Tony Salloum, HSEQ & Compliance Manager, Enviro Waste Services Group.
- John-Paul Hawach – Operations Manager, Enviro Waste Services Group.

2.2.4 Meetings

Opening and closing meetings were held between the Auditor and Project personnel.

During the opening meeting, held at the start of the 2 November 2023 audit session, the objectives and scope of the Independent Odour Audit, the resources required, and methodology to be applied were discussed.

At the closing meeting, held on 2 November 2023, the preliminary audit findings were presented, additional information required was outlined, preliminary recommendations (as appropriate) were made, and post-audit corrective actions were confirmed.

2.2.5 Interviews

The Auditor conducted interviews during the site inspection with key personnel involved in the Project operation, including those with responsibility for environmental management, to assist with verifying the compliance status of the development. All other communication was conducted remotely, which included detailed request for information and auditee responses to the request. Audit interviews were conducted on 2 November 2023 with the following people:

- Simon Saba, Group General Manager, Enviro Waste Services Group.
- Tony Salloum, HSEQ & Compliance Manager, Enviro Waste Services Group.
- Ravi Maharaj – Technical Manager, Enviro Waste Services Group.

- Rob Kennane – Factory Manager, Enviro Waste Services Group.
- John-Paul Hawach – Operations Manager, Enviro Waste Services Group.

Additionally, phone and/ or email contact and discussions with respect to the audit and the provision of relevant documentation have been held with:

- Simon Saba, Group General Manager, Enviro Waste Services Group.
- Tony Salloum, HSEQ & Compliance Manager, Enviro Waste Services Group.

2.2.6 Site inspection

An onsite inspection of the project was conducted by the auditor on 2 November 2023 and included a visual inspection and interviews with key staff/stakeholders on the following areas:

- Site entry and truck access
- Indoor operations (including enclosure roller doors)
- Truck emptying tank and grid/filter system
- Biotrickling filter / activated carbon filter system
- Liquid waste treatment tanks
- Vertical dispersion stack above roofline
- Deodoriser
- DAF unit
- Wash down area and drains
- Waste storage and collection areas and bins

Inspection and post-inspection photos are presented in Appendix D.

2.2.7 Document review

The Independent Odour Audit included investigation and review of Project files, records and documentation that acts as evidence of compliance (or otherwise) with a compliance requirement. The documents sighted are include:

- Air Quality and Odour Management Plan (AQOMP), Rev. 2, 28 April 2022.
- DPE Assessment Report, November 2021.
- Risk Assessment Form, Odour and Air Quality Factory, 2/10/23.
- Ektimo Odour and Emission Testing Report, R014718, 1//5/23 – EPA Point 1.
- Ektimo Odour and Emission Testing Report, R013553, 22/11/22 – Box Filter, DAF, Stack.

- EMS-FORM001-v2-Environmental Pollution Incident & Near Miss Reporting form, 1/10/13.
- EMS-POL026-Environmental-Procedure-Enquiry/Complaint/Nonconformity Handling_17/5/22.
- EMS-SOP005_v01_Environmental Odour Complaint Flowchart.
- EPA License 20444_License Variation_August 22.
- Odour Audit Report_Benbow_Rev 2_June 23.
- Odour and Air Quality Equipment Checklist_Weekly Monitoring Checklist-Oct, Nov, Dec 23.
- Record of Odour Intensity, June-September 23.
- SOP029-v4-Factory Tank Ventilation
- Odour Site Environmental Inspection Checklist-5/9/23.

2.2.8 General Audit Findings

Independent Audit findings were based on verifiable evidence. The evidence included:

- relevant records, documents and reports
- interviews of relevant site personnel
- photographs
- figures and plans, and
- site inspections of relevant locations, activities and processes.

2.2.9 Compliance evaluation

The Auditor determined the compliance status of each compliance requirement using the descriptors from Table 2 of the IAPAR. These are replicated in Table 2 below.

Table 2: Compliance status descriptors

Status	Description
Compliant	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	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.

Observations and notes may also be made to provide context, identify opportunities for improvement or highlight positive initiatives.

Table 2-1: Additional Compliant status descriptors

Descriptor	Explanation

Opportunity for Improvement (OFI)	A suggestion or opportunity to implement good or better practice to improve effectiveness, further reduce exposure to risk or improve information management. When specifically stated as a Recommendation, a formal response and action plan are required.
Observation (OBS)	Documented requirement and/ or implementation issue which may not strictly affect required performance or compliance outcomes. Also termed a non-conformance (as opposed to non-compliance) in the industry, observations could be an early indication of potential non-compliance and/ or an adverse performance outcome.

2.2.10 Evaluation of post approval documentation

The Auditor assessed whether post approval documents:

- have been developed in accordance with the CoCs and all other environmental licences and approvals applicable to the Project (if any) and their content is adequate, and
- have been implemented in accordance with the CoCs and all other environmental licences and approvals applicable to the Project (if any).

The adequacy of post approval documents was determined on the basis of whether:

- there are any non-compliances resulting from the implementation of the document.
- whether there are any opportunities for improvement.

2.2.11 Completing the audit

The Independent Odour Audit Report was distributed to the proponent to review and check factual matters and for input into actions in response to findings (where relevant). The Auditor retained the right to make the final findings or recommendations based on the facts presented.

3. AUDIT FINDINGS

3.1 Approvals and documents audited, and evidence sighted

The requirements audited comprised all the conditions from Conditions of Consent of SSD-10407 applicable to the works being undertaken, and selected mitigation measures and commitments from the following plans:

- Air Quality and Odour Management Plan (AQOMP) Rev. 2 – Benbow Environmental, 28 April 2022.

The evidence sighted against each requirement is detailed within Appendix A.

3.2 Non-compliance, Observations and Actions

This Section, including Table 3, presents the non-compliances and observations from the Independent Odour Audit. Actions in response to each of the findings are also presented. Detailed findings against each requirement are presented in Appendix A.

- Of the total eight (8) relevant Conditions of Consent (CoC) audited, there were four (4) non-compliances and two (2) observations identified with respect to these requirements. These relate to:
- Technical non-compliances for B20, B21, B22 and B24.
- Technical observations for B19 and B23.
- The non-compliances and observations related to:
  - Incorrect description of the odour treatment system in the consent and related documents, with no biotrickling filter system in place.
  - Emission stack is approx. 3m above roofline instead of 6m.
  - Odour emissions from DAF unit are not extracted and vented to odour treatment systems and stack.
  - AQOMP was submitted and approved by Planning Secretary prior to commencement of operation.
  - Odour audit was not completed within 6 months of operation and initial odour auditor was not approved by Planning Secretary.
  - There was one recorded exceedance for odour testing above the DAF unit.

Additionally, there were five (5) non-conformances and one (1) observation with respect to the Appendix B of the Consent, EPL and AQOMP requirements in Appendix A. However, these are largely a repeat of the same non-compliances and observations found for the requirements in the conditions of consent.

Table 1: Audit findings and actions

Appendix A – Ref No.	CoC	Type	Details of Requirement and Audit Finding	Proposed or completed action	By whom and by when	Status / Auditee Response
IA_02	B19	Observation	**Requirement:** *The Applicant must install and operate equipment in line with best practice to ensure that the development complies with all load limits, air quality criteria/air emission limits and air quality monitoring requirements as specified in the EPL applicable to the site.* **Observation:** The AQOMP describes a biotrickling filter system as being in place where in fact the odour treatment system in operation involves a granular carbon filter system. The auditor notes that the existing granular carbon filter appears, on the basis of the odour testing results, air quality monitoring and record of complaints, to be capable of treating odour to the required standard, particularly when checked and maintained regularly. The auditor notes that general compliance of the EPL limits for VOCs and Benzene have been achieved (with the exception) of an exceedance for the DAF, and therefore using	The auditor recommends that the AQOMP be revised to describe the existing system in operation, and notify DPE of the update to the AQOMP. Additionally, the auditor recommends: 1. That a procedure to regularly check/inspect and maintain the activated carbon filter be developed and implemented and that the activated carbon granules be replaced every 3-6 months to ensure efficacy and required performance, as required. 2. That should future and repeated air quality / odour sampling exceedances be recorded, that the auditee commission a review, and consider the installation of biotrickling filter system, especially where there are	Auditee (GM and EHS Manager) Within 8 weeks from date of the report.	Recommendation 1 – CLOSED following consideration of auditee response dated 28/3/24, and implementation of corrective actions and/ or recommendations since the on-site inspection. Recommendation 2 – OPEN.

Appendix A – Ref No.	CoC	Type	Details of Requirement and Audit Finding	Proposed or completed action	By whom and by when	Status / Auditee Response
			the existing system, and with implementation of the corrective action/recommendation for odour extraction/ventilation and treatment / release via the carbon filter and stack, might continue to be sufficient. This is especially the case were more frequent checking and replacement of the granulated activated carbon (between 3-6 months) and proper dosing of caustic into the DAF unit is implemented.	additional benefits and added value in using such a system to achieve compliance and performance outcomes, as well as allow cost and operational and maintenance efficiencies.		
IA_03	B20	Non-compliance	**Requirement:** *All tanks must vent to the biotrickling filter system and the air discharged from the biotrickling filter must be exhausted through the stack 6 m above the roofline. The biotrickling filter system stack must have a compliant sampling plane in accordance with AS4323.1-1995.* **Non-compliance:** As mentioned above, the auditor notes that there is a discrepancy between the odour treatment system described in the EIS, RtS, Consent and AQOMP and that in operation at the site. The existing odour treatment system on site includes a granular carbon filter system through which extracted air/odour from the	The auditor recommends that the auditee revise the AQOMP to accurately describe the existing odour treatment system in place and notify the Department and EPA of the changes. The auditor also recommends that the auditee install a fan exhaust extraction system above the DAF that is vented to the Carbon Filter and that an appropriately designed and operated exhaust stack be installed (for the emission	Auditee (GM and EHS Manager) Within 8 weeks from date of audit report.	CLOSED – following consideration of auditee response dated 28/3/24, and implementation of corrective actions and/ or recommendations since the on-site inspection.

Appendix A – Ref No.	CoC	Type	Details of Requirement and Audit Finding	Proposed or completed action	By whom and by when	Status / Auditee Response
			plant is reticulated/exhausted, and emitted through a stack. There is currently no, nor has there every been, according to the evidence provided to the auditor, a biotrickling filter system. The auditor notes that at the time of the inspection the carbon filter system does vent to the emission stack but the DAF (Dissolved Air Flotation) treatment tank did not. The auditor notes that at the time of the inspection the stack above the roofline was approx. 3m and not 6m as described in the EIS and AQOMP). The sampling plane appears to be in accordance with the standards, and has been verified by the qualified odour testing consultant, Ektimo.	of odour) that is 6m above the roofline.		
IA_04	B21	Non-compliance	**Requirement:** *Prior to the commencement of operation, the Applicant must prepare an Air Quality and Odour Management Plan (AQOMP) to the satisfaction of the Planning Secretary. The AQOMP must form part of the OEMP required by Condition C2. The AQOMP must:*	The auditor recommends that the auditee revise and update the AQOMP to accurately describe the existing odour treatment system in place, notify the Department and EPA of the changes, and submit the revised AQOMP to DPE via the Planning Portal.	Auditee (GM and EHS Manager) Within 8 weeks from date of audit report.	CLOSED – following consideration of auditee response dated 28/3/24, and implementation of corrective actions

Appendix A – Ref No.	CoC	Type	Details of Requirement and Audit Finding	Proposed or completed action	By whom and by when	Status / Auditee Response
			• *be prepared by a suitably qualified and experienced person(s);* • *be prepared in consultation with the EPA;* • *detail and rank all emissions from all sources of the development, including odour;* • *describe a program that is capable of evaluating the performance of the operation and determining compliance with key performance indicators;* • *identify the control measures that that will be implemented for each emission source; and* • *describe the following for each of the proposed controls:* *(i) key performance indicator;* *(ii) monitoring method;* *(iii) location, frequency and duration of monitoring;* *(iv) record keeping;* *(v) complaints register;*	Additionally, the auditee should seek advice from DPE on any further consultation required with regards the updated AQOMP.		since the on-site inspection.

Appendix A – Ref No.	CoC	Type	Details of Requirement and Audit Finding	Proposed or completed action	By whom and by when	Status / Auditee Response
			(vi) response procedures; and *(vii) compliance monitoring.* **Non-compliance:** The auditor notes that the AQOMP was prepared by a suitably qualified consultant being Benbow Environmental and that it was prepared in consultation with the EPA, as evidenced in Section 1.3 'Consultation' of the Plan. The Plan details emissions sources including odour, as well as describing performance indicators for determining compliances as well as control measures, as per i to vii in this condition. The auditor notes that the main shortcoming of the plan and its implementation, is the discrepancy between what is described as being the odour treatment system in the Plan (i.e. biotrickling filter system) versus what is actually in operation at the site i.e. granular carbon filtration tank.			
IA_05	B22	Non-compliance	**Requirement:** *The Applicant must:*	The auditor recommends that the auditee:	Auditee (GM and EHS Manager)	Recommendations 1 and 2 - CLOSED, following auditee response and

Appendix A – Ref No.	CoC	Type	Details of Requirement and Audit Finding	Proposed or completed action	By whom and by when	Status / Auditee Response
			(a) not commence operation until the AQOMP required by Condition B21 is approved by the Planning Secretary; and *(b) implement the most recent version of the AQOMP approved by the Planning Secretary for the duration of the development.* **Observation:** The auditor notes that the auditee notified commencement of operation to DPE in letter dated 17/11/23, with the date of commencement of operation being 23/10/22. The auditee had developed the AQOMP prior to the commencement of operation but had not sought nor attained approval for the plan by the Planning Secretary. The auditee noted that they had overlooked this requirement.	1. notify DPE of the date of commencement of operation. 2. submit a revised and updated AQOMP with an accurate description of the existing odour treatment system to DPE seeking the Planning Secretary's approval for the plan. 3. Consult with DPE on requirements to notify the EPA of the updated AQOMP and related corrections and consult with them on any further requirements, as required. 4. Implement the revised and updated AQOMP once approved by the Planning Secretary.	Within 8 weeks from date of audit report.	implementation of corrective actions and/ or recommendations since the on-site inspection. Recommendations 3 and 4 – OPEN.
IA_06	B23	Observation	**Requirement:** *The Applicant must ensure the development does not cause or permit the emission of any offensive odour (as defined in the POEO Act).*	The auditor recommends the auditee implement the below three corrective actions to help reduce the potential for any such exceedances in future, and	Auditee (GM and EHS Manager)	Recommendations 1-3 – CLOSED, following auditee response dated 28/3/24, and

Appendix A – Ref No.	CoC	Type	Details of Requirement and Audit Finding	Proposed or completed action	By whom and by when	Status / Auditee Response
			Observation: Of the required odour monitoring conducted and results reported, there was one exceedance for the DAF unit, with results showing 4,600 OU versus the maximum modelled concentration limit of 2,050 OU. The exceedance, if not mitigation, may have the potential to impact the nearest industrial receivers in the immediately and adjacent area. The auditor notes that the nearest residential sensitive receivers are located 330m south-southeast of the site. To verify the potential impact of this exceedance, the auditee engaged their consultant Benbow and sub-consultant Ektimo to conduct additional odour modelling to determine the impact of the exceedance on the nearest sensitive receivers (Odour Audit_Rev_2_June _2023 Benbow Environmental). The results show that even with the exceedance at the DAF, the ground level impacts are still below the concentration limit of 7 OU and is considered	mitigate any such events, including: 1. More regular and scheduled routine checks and inspections of the carbon filter with 3-6 month replacement of carbon granules, as required, as well as a review of the treatment system should repeated exceedance occur in future. 2. Increase in the height of the vent stack from 3 to the required 6m. 3. Installation of odour extraction (fan exhaust) above DAF unit and reticulation to carbon filter and stack.	Within 8 weeks from date of audit report.	implementation of corrective actions and/ or recommendations since the on-site inspection.

Appendix A – Ref No.	CoC	Type	Details of Requirement and Audit Finding	Proposed or completed action	By whom and by when	Status / Auditee Response
			minor and unlikely to cause a nuisance to the nearest sensitive receivers. The auditor notes that there have been no odour related complaints received by the auditee since the commencement of operation, nor at the time of the exceedance, nor has there been any complaints registered by Council and the EPA (as verified through the auditor's consultation) with these agencies.			
IA_07	B24	Non-compliance	**Requirement:** *The Applicant must carry out an Odour Audit of the development no later than six months after the commencement of operation of the development. Division 9.4 of Part 9 of the EP&A Act applies to this audit which is for the purpose of auditing the development against the odour impact predictions of the development. The audit must:* *(a) be carried out by a suitably qualified, experienced and independent person(s), whose appointment has been endorsed by the Planning Secretary;* *(b) audit the development in full operation;*	1. The auditor recommends that the auditee notify the Department of the non-compliance with respect the required timing and completion of the Odour Audit (i.e. more than 6 months following commencement of operation). 2. The auditor recommends the auditee implement the corrective actions and recommendations in this Odour Audit Report. 3. The auditor also recommends that the auditee continually maintain and monitor the current	Auditee (GM and EHS Manager) Within 8 weeks from date of audit report.	Recommendations 1 and 2 – CLOSED, following auditee response dated 28/3/24, and implementation of corrective actions and/ or recommendations since the on-site inspection. Recommendation 3 – OPEN.

Appendix A – Ref No.	CoC	Type	Details of Requirement and Audit Finding	Proposed or completed action	By whom and by when	Status / Auditee Response
			(c) include a summary of odour complaints and any actions that were carried out to address the complaints; *(d) assess the operation against odour impact predictions in the EIS and RtS;* *(e) review design and management practices in the development against industry best practice for odour management; and* *(f) include an action plan that identifies and prioritises any odour mitigation measures that may be necessary to reduce odour emissions.* *Note: The Odour Audit may be prepared so that it addresses the requirements of this consent and the EPL for the development.* **Non-compliance:** An initial odour audit was completed by BenBow Environmental on 6/6/23. This initial odour audit was conducted about 10 months following commencement of operation and was outside of the required 6 months following commencement of operation on 23/10/22.	odour treatment system (through regular inspections and more frequent changes of activated carbon granules); and conduct a review and explore options for the implementation of a more advanced system should there be any repeated and significant odour exceedances in future.		

Appendix A – Ref No.	CoC	Type	Details of Requirement and Audit Finding	Proposed or completed action	By whom and by when	Status / Auditee Response
			However, the initial odour audit was conducted by the auditee's environmental consultant and was not accepted by DPE as the consultant was not independent (as they had prepared the AQOMP) and weren't approved by the Planning Secretary to conducted the audit. The auditee has since engaged Ibrahim Awad of 7th Sense to conduct the Odour Audit. The current Odour Audit covers the requirements a-f detailed in this condition as set out below: a. The current auditor is appropriately qualified and experienced as their appointment was approved by the Planning Secretary/DPE on 4/10/23. b. The odour audit was conducted while the facility was in full operation during a weekday and was receiving liquid waste trucks and the auditor was able to observe the site's activities, odour treatment systems and odour emissions while the facility was processing waste.			

Appendix A – Ref No.	CoC	Type	Details of Requirement and Audit Finding	Proposed or completed action	By whom and by when	Status / Auditee Response
			c. An evaluation of the auditee's complaints register and consultations with Council and the EPA were conducted to assess odour complaints. d. The auditor has reviewed the odour assessments and proposed or recommended management / mitigations in the EIS and RTS and compared against the auditee's current performance and management practices. The auditor notes that the main concerns for odour came from the EPA and relate to the sufficiency of odour controls when the facility was at full capacity, as well as acceptance of waste materials that may result in offensive odours, such a expired dairy products, and liquid food waste/oils. Based on the odour monitoring and results, as well as odour observations and complaint records, the auditor is satisfied that the current odour controls/mitigations, and performance is in line with that predicted in the EIS and in line with the RFS. e. The auditor believes that with implementation of the corrective actions / recommended improvements in this audit			

Appendix A – Ref No.	CoC	Type	Details of Requirement and Audit Finding	Proposed or completed action	By whom and by when	Status / Auditee Response
			report (i.e. more regular checks on performance of granular carbon filter and replacement of activated carbon granules (3-6 month intervals), installation of DAF fan extraction and ducting to carbon filter and stack, and ongoing monitoring), the existing controls are sufficient to manage potentially offensive odours and their impact on sensitive receivers. However, the auditor is also in agreement with the consultant in the RTS that added odour control measures such as introduction of biotrickling filters, additional carbon filters and/ or extraction and treatment of fugitive odours may need to be considered if future and repeated exceedances are recorded. f. The auditor has requested that the auditee respond to the audit findings and proposed corrective actions and recommendations and provide an action plan that identifies and prioritises mitigation measures as outlined in (e) above.			

3.3 Adequacy of Environmental Management Plans, sub-plans and post approval documents

The adequacy of post approval documents must be determined on the basis of whether:

- there are any non-compliances resulting from the implementation of the document.
- whether there are any opportunities for improvement.

A review was conducted of the:

- Air Quality and Odour Management Plan (AQOMP), Rev 2, Benbow Environmental, April 2022.

The plan was assessed against the relevant requirements stated in CoC C21, whereby:

The AQOMP must:

- *be prepared by a suitably qualified and experienced person(s);*
- *be prepared in consultation with the EPA;*
- *detail and rank all emissions from all sources of the development, including odour;*
- *describe a program that is capable of evaluating the performance of the operation and determining compliance with key performance indicators;*
- *identify the control measures that that will be implemented for each emission source; and*
- *describe the following for each of the proposed controls:*

(i) key performance indicator;

(ii) monitoring method;

(iii) location, frequency and duration of monitoring;

(iv) record keeping;

(v) complaints register;

(vi) response procedures; and

(vii) compliance monitoring.

The Plan was also assessed against the requirement stated in CoC B22, whereby:

The Applicant must:

(a) not commence operation until the AQOMP required by Condition B21 is approved by the Planning Secretary; and

(b) implement the most recent version of the AQOMP approved by the Planning Secretary for the duration of the development.

The auditor notes that the AQOMP is generally sufficient to address CoC C21 and has been prepared by a suitably qualified consultant and in consultation with the EPA. However, the Plan contains an incorrect description of the odour treatment system, referencing a biotrickling filter system, whereas in fact the odour treatment system in place and being utilised is a carbon filter system that utilises activated carbon granules through which extracted odour is vented.

It appears that the incorrect description of the odour treatment system was first made in the EIS, and has been repeated in all subsequent documentation, including the updated EIS, RtS, Consent, Consent Recommendation Report, and AQOMP.

The auditor has raised this issue with the auditee and has attempted to understand and seek evidence as to how the Consultant has made this error. As far as the auditor is able to determine, and based on all the evidence provided, there has never been a biotrickling filter system in place on the premises, though early communications by the auditee to DPE and the EPA show that the auditee either thought that they had a biotrickling filter system and/ or were led to believe that, and / or either misunderstood or misrepresented the system. Subsequently the consultation required, and undertaken with the EPA, was based on the assumption that there was a biotrickling filter system in place, and therefore the consent, for example, CoC B20, also references the use of a biotrickling filter system.

Other than the administrative and documentary errors that have resulted from this incorrect description of the odour treatment system, the auditor does not believe, based on the results of the air quality and odour testing, as well as the record of complaints, that the current system in overly ineffective or insufficient. However, the auditor has recommended that DPE and the EPA be notified of this error, and that the AQOMP be revised and updated to provide an accurate and true description of the odour treatment system in place, and that this revised and updated AQOMP be shared with both DPE and the EPA for their information and/or further consultation. The auditor has also recommended that the auditee investigate the option of upgrading to a biotrickling filter system should there be any future serious and/ or repeated non-compliances with the air quality and odour testing limits and requirements and/ or any public odour complaints.

With respect to CoC B22, whereby the auditee must not commence operation until the AQOMP is approved by the Planning Secretary, the auditee was unaware of this requirement and had in fact commenced operation of the development without having first submitted the AQOMP to DPE for approval. At the recommendation of the auditor, the auditee has subsequently submitted the AQOMP to DPE for the Planning Secretary's approval in a letter dated 18 December 2023. The letter makes reference to the correct description of the carbon filter system.

3.4 Summary of notices from agencies

To the Auditors knowledge no formal notices were issued by the Department during the audit period in relation to the non-compliances.

3.5 Complaints

The auditor has consulted both Cumberland City Council and the EPA with respect to any air quality or odour complaints received since the commencement of operation of the development, and no complaints have been registered or recorded. Copies of the auditor's correspondence with Council and the EPA are provided in Appendix C.

3.6 Incidents

There have been no recorded and/ or reported air quality and odour related incidents in the Development for the period since the commencement of operation up until the date of the site inspection on 2 November 2023.

3.7 Actual versus predicted impacts

The auditor notes that the auditee engaged the services of Benbow Environmental to conduct an assessment of the actual versus predicted odour impacts and these were detailed in Benbow Report Rev 2 dated 6 June 2023.

The updated EIS Revision 5, dated 5 February 2021, includes an odour assessment (Appendix 2 – Odour Impact Assessment, November 2020) predicting the 99th percentile ground level impacts, based on modelled data and compared against the odour concentration criterion of 7 OU/m3 (for residences ≤ 2). The EIS shows that the predicted impacts were significantly below the limit of 7OU, with the highest level of impact of 0.424 OU being at an industrial receptor on 12 Kiora Crescent, Yennora. The assessment considered all sensitive receptors, including residents and childcare centres, which were below 0.042 OU. The EIS predicted that the impacts of odour emitted from the facility would be very minor in nature and the predicted concentrations would be unlikely to cause nuisance or offence to persons within the vicinity of the site.

The auditor has reviewed the additional modelling conducted by Benbow Environmental based on the testing and results conducted by Ektimo, the exceedance at the DAF unit and the modelling of this exceedance and impact on surrounding receivers, the regular odour monitoring conducted by the auditee, as well as the record of complaints/odour incidents held by the auditee, and provided by Council and the EPA.

The auditor is in agreement with the additional Benbow modelling and assessment of the impact of the DAF exceedance which shows that the exceedance had a minimal odour impact as the predicted 99th percentile ground level impacts were still significantly below the odour concentration limit of 7

OU and are still in compliance at all sensitive receptors and therefore the odour level would be considered very minor and unlikely to cause nuisance or offence to persons in the vicinity of the site.

The auditor is of the view that the actual and predicted odour impacts are in line with those modelled and assessed in the EIS, and that based on the current testing and modelling results, there are no additional odour control measures required to be implemented above and beyond those that have already been recommended in this audit report.

4. CONCLUSION

This Audit Report presents the findings for the Independent Odour Audit of the Yennora Liquid Waste Treatment Plant (SSD-10407), covering the period between the granting of consent on 26 November 2021 and the completion of the site inspection on 2 November 2023 (the audit period).

The on-site audit inspection was conducted on 2 November 2023 and resulted in the finding of four (4) non-compliances and two (2) observations. These relate to:

- Technical non-compliances with respect to B20, B21, B22 and B24;
- Technical observations with respect to B19 and B23.

In general, the audit and site inspection found that the proponent had overlooked and failed to comply with several of their responsibilities under the consent and had relied too heavily upon their consultant to fulfil obligations for which they have core responsibility. These oversights were mostly administrative in nature and fortunately have not resulted in any major adverse odour and air quality impacts or outcomes, nor any public complaints.

The auditor has noted that at the time of completing this audit report, the auditee had taken action to implement a substantial number of the corrective actions and recommendations made.

The Auditor would like to thank the auditees from the Yennora LWTP for their high level of cooperation and assistance during the Independent Odour Audit.

APPENDIX A: AUDIT CHECKLIST

Table 2: Yennora Liquid Waste Treatment Plant – Independent Odour Audit No. 1 (SSD-10407)

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
Relevant conditions and requirements from: SSD-10407 (26 November 2021), EPL-20444 (2 August 2022), Air Quality and Odour Management Plan (28 April 2022).				
PART A: ADMINISTRATIVE CONDITIONS				
IA_01	A22 - OPERATION OF PLANT AND EQUIPMENT All plant and equipment used on site, or to monitor the performance of the development, must be: maintained in a proper and efficient condition; and operated in a proper and efficient manner.	Audit interview and inspection on 2/11/23. Odour Ventilation – Weekly Monitoring Checklist – September and October 2023 spreadsheet. Customer Work Order No. 3078 for supply and installation of auto doser timer and float, and wiring of new equipment for deodoriser – Scott Gould – 20/10/2023. Customer Work Order No. 3078 for installation/maintenance of new timer for auto deodoriser and testing – Scott Gould – 1/11/2023.	The auditor notes that the plant and odour control systems / equipment appeared to be operating well and were properly maintained at the time of the audit. The auditor has reviewed and noted evidence and records of maintenance schedules and continuous improvement works such as the odour control equipment / deodoriser.	Compliant
PART B: SPECIFIC ENVIRONMENTAL CONDITIONS - AIR QUALITY				
Air Quality Discharges				

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
IA_02	B19. The Applicant must install and operate equipment in line with best practice to ensure that the development complies with all load limits, air quality criteria/air emission limits and air quality monitoring requirements as specified in the EPL applicable to the site.	Audit interview and on-site inspection on 2/11/23. AQOMP, Rev. 2, Benbow Environmental, dated 28/4/2022. SOP029 – V05 – Factory Tanks Ventilation, 25/6/22, updated 1/11/23. DAF – Ventilation Chart. SOP-029-V06-Factory Tanks Ventilation, Maintenance Program, Activated Carbon, dated 5/2/24.	The auditor notes that there is a discrepancy between the odour treatment system described in the approved AQOMP and that in operation at the plant. **Observation:** The AQOMP describes a biotrickling filter system as being in place where in fact the odour treatment system in operation involves a granular carbon filter system. The auditor recommends that the AQOMP be revised to describe the existing system in operation, and notify DPE of the update to the AQOMP. The auditor notes that the existing granular carbon filter appears, on the basis of the odour testing results, air quality monitoring and record of complaints, to be capable of treating odour to the required standard, particularly when checked and maintained regularly.	**Observation**

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
			The auditor notes that general compliance of the EPL limits for VOCs and Benzene have been achieved (with the exception) of an exceedance for the DAF, and therefore using the existing system, and with implementation of the corrective action/recommendation for odour extraction/ventilation and treatment / release via the carbon filter and stack, might continue to be sufficient. This is especially the case were more frequent checking and replacement of the granulated activated carbon (between 3-6 months) and proper dosing of caustic into the DAF unit is implemented. However, the auditor does recommend: 1. That a procedure to regularly check/inspect and maintain the activated carbon filter be developed and implemented and that the activated carbon granules be replaced every 3-6 months to ensure efficacy and required performance, as required.	

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
			2. That should future and repeated air quality / odour sampling exceedances be recorded, that the auditee commission a review, and consider the installation of biotrickling filter system, especially where there are additional benefits and added value in using such a system to achieve compliance and performance outcomes, as well as allow cost and operational and maintenance efficiencies.	
IA_03	B20. All tanks must vent to the biotrickling filter system and the air discharged from the biotrickling filter must be exhausted through the stack 6 m above the roofline. The biotrickling filter system stack must have a compliant sampling plane in accordance with AS4323.1-1995.	Audit interview and on-site inspection on 2/11/23. AQOMP, Rev. 2, Benbow Environmental, dated 28/4/2022. SOP029 – V05 – Factory Tanks Ventilation, 25/6/22, updated 1/11/23. DAF – Ventilation Chart. Report from Ektimo – confirming compliance of sampling plane with AS4323.1-1995.	As mentioned above, the auditor notes that there is a discrepancy between the odour treatment system described in the EIS, RtS, Consent and AQOMP and that's in operation at the site. The existing odour treatment system on site is a granular carbon filter tank system through which extracted air/odour from the plant is reticulated/exhausted, and emitted through a stack. There is currently no, nor has there been, according to the evidence provided to the auditor, a biotrickling filter system.	**Not-compliant**

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
			The auditor notes that at the time of the inspection the carbon filter system does vent to the emission stack, but the DAF (Dissolved Air Flotation) treatment tank did not. The auditor notes that at the time of the inspection the stack above the roofline was approx. 3m and not 6m as required in the EIS and AQOMP). The sampling plane appears to be in accordance with the standards, and has been verified by the qualified odour testing consultant, Ektimo. The auditor recommends that the auditee revise the AQOMP to accurately describe the existing odour treatment system in place and notify the Department and EPA of the changes. The auditor also recommends that the auditee install a fan exhaust extraction system above the DAF that is vented to the Carbon Filter and that an appropriately designed and operated exhaust stack be installed (for the emission of odour) that is 6m above the roofline.	
Air Quality and Odour Management Plan				

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
IA_04	B21. Prior to the commencement of operation, the Applicant must prepare an Air Quality and Odour Management Plan (AQOMP) to the satisfaction of the Planning Secretary. The AQOMP must form part of the OEMP required by Condition C2. The AQOMP must: • be prepared by a suitably qualified and experienced person(s); • be prepared in consultation with the EPA; • detail and rank all emissions from all sources of the development, including odour; • describe a program that is capable of evaluating the performance of the operation and determining compliance with key performance indicators; • identify the control measures that that will be implemented for each emission source; and • describe the following for each of the proposed controls:	Audit interview and on-site inspection on 2/11/23. AQOMP, Rev. 2, Benbow Environmental, dated 28/4/2022. Consultation with EPA and responses detailed in Section 1.3 'Consultation' of the Plan. Draft copy AQOMP provided to the EPA on 20 January 2022. Email from EPA with response/comments dated 7 April 2022 in Attachment 1, AQOMP.	The auditor notes that the AQOMP was prepared by a suitably qualified consultant being Benbow Environmental and that it was prepared in consultation with the EPA, as evidenced in Section 1.3 'Consultation' of the Plan. The Plan details emissions sources including odour, as well as describing performance indicators for determining compliances as well as control measures, as per i to vii in this condition. **Non-compliance:** The auditor notes that the main shortcoming of the plan and its implementation, is the discrepancy between what is described as being the odour treatment system in the Plan (i.e. biotrickling filter system) versus what is actually in operation at the site i.e. granular carbon filtration tank. The auditor also notes other inaccurate descriptions of the system, for example it is noted that the emissions stack is 6m when it is approx. 3 m.	**Not-compliant**

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
	(i) key performance indicator; (ii) monitoring method; (iii) location, frequency and duration of monitoring; (iv) record keeping; (v) complaints register; (vi) response procedures; and (vii) compliance monitoring.		The auditor recommends that the Plan be updated to more accurately reflect and describe the existing odour treatment system in place and that this plan be submitted to DPE, and shared with the EPA.	
IA_05	B22. The Applicant must: (a) not commence operation until the AQOMP required by Condition B21 is approved by the Planning Secretary; and (b) implement the most recent version of the AQOMP approved by the Planning Secretary for the duration of the development.	Audit interview and inspection on 2/11/23. AQOMP v2 dated April 2022. Letter from auditee to DPE notifying the development of the AQOMP and correction with respect the description of the odour treatment system, and seeking Planning Secretary approval, dated 18/12/23.	The auditor notes that the auditee notified commencement of operation to DPE in letter dated 17/11/23, with the date of commencement of operation being 23/10/22. The auditee had developed the AQOMP prior to the commencement of operation but had not sought nor attained approval for the plan by the Planning Secretary. The auditee noted that they had overlooked this requirement. The auditor recommends that the auditee:	**Non-compliant**

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
			1. notify DPE of the date of commencement of operation. 2. submit a revised and updated AQOMP with an accurate description of the existing odour treatment system to DPE seeking the Planning Secretary's approval for the plan. 3. notify the EPA of the updated AQOMP and related corrections and consult with them on any further requirements. 4. Implement the revised and updated AQOMP once approved by the Planning Secretary.	
Odour Management				

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
IA_06	B23. The Applicant must ensure the development does not cause or permit the emission of any offensive odour (as defined in the POEO Act).	Audit interview and inspection on 2/11/23. Odour monitoring reports and results - Ektimo dated 1/4/23 for EPA Point 1 – Biotrickling Filter vent stack for sampling conducted on 30/3/23 for Benzene and VOCs (annual requirement), and results for sampling of Box Filter, DAF and Stack for sampling conducted on 23/11/22. Enviro Waste Services Group, Complaints Register 2022-2023 for the Yennora LWTP. Consultation with Cumberland Council and EPA on 14/11/23 and 171/24, respectively.	Of the required odour monitoring conducted and results reported, there was one exceedance for the DAF unit, with results showing 4,600 OU versus the maximum modelled concentration limit of 2,050 OU. The exceedance, if not mitigation, may have the potential to impact the nearest industrial receivers in the immediately and adjacent area. The auditor notes that the nearest residential sensitive receivers are located 330m south-southeast of the site. To verify the potential impact of this exceedance, the auditee engaged their consultant Benbow and sub-consultant Ektimo to conduct additional odour modelling to determine the impact of the exceedance on the nearest sensitive receivers (Odour Audit_Rev_2_June _2023 Benbow Environmental). The results show that even with the exceedance at the DAF, the ground level impacts are still below the concentration limit of 7 OU and is considered minor and unlikely to cause a nuisance to the nearest sensitive receivers.	**Observation**

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
			The auditor notes that there have been no odour related complaints received by the auditee since the commencement of operation, nor at the time of the exceedance, nor has there been any complaints registered by Council and the EPA (as verified through the auditor's consultation) with these agencies. **Observation:** None-the-less, the auditor has recommended three corrective actions to help reduce the potential for any such exceedances in future, and mitigate any such events, including: - More regular and scheduled routine checks and inspections of the carbon filter with 3-6 month replacement of carbon granules, as required, as well as a review of the treatment system should repeated exceedance occur in future. - Increase in the height of the vent stack from 3 to the required 6m.	

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
			- Installation of odour extraction (fan exhaust) above DAF unit and reticulation to carbon filter and stack.	
IA_07	B24. The Applicant must carry out an Odour Audit of the development no later than six months after the commencement of operation of the development. Division 9.4 of Part 9 of the EP&A Act applies to this audit which is for the purpose of auditing the development against the odour impact predictions of the development. The audit must: (a) be carried out by a suitably qualified, experienced and independent person(s), whose appointment has been endorsed by the Planning Secretary; (b) audit the development in full operation; (c) include a summary of odour complaints and any actions that were carried out to address the complaints; (d) assess the operation against odour impact predictions in the EIS and RtS;	Audit interview and odour audit inspection on 2/11/23. Letter of approval of odour auditor (Ibrahim Awad of 7th Sense) by DPE dated 4/10/23. Odour Audit Report, by 7th Sense, dated December 2023. EPA License Variation - EPL 20444 - Notice Number 1617300 - File Number EF13/8371- dated 2/8/22. EIS, Rev. 4, Benbow, November, 2020. Appendix 2 – Odour Impact Assessment, Benbow Environmental, November 2020. Response to Submissions (RTS), Benbow Environmental, February 2021.	An initial odour audit was completed by BenBow Environmental on 6/6/23. **Non-compliance:** The initial odour audit was conducted about 10 months following commencement of operation and was outside of the required 6 months following commencement of operation on 23/10.22, and was conducted by a person that has not been approved by the Planning Secretary. The odour audit completed by the DPE approved odour auditor was conducted on 2/11/23, approximately one year following commencement of operations. The current Odour Audit covers the requirements a-f detailed in this condition as set out below:	**Non-compliant**

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
	(e) review design and management practices in the development against industry best practice for odour management; and (f) include an action plan that identifies and prioritises any odour mitigation measures that may be necessary to reduce odour emissions. Note: The Odour Audit may be prepared so that it addresses the requirements of this consent and the EPL for the development.		a. The current auditor is appropriately qualified and experienced as their appointment was approved by the Planning Secretary/DPE on 4/10/23. A copy of the approval is provided in App B. b. The odour audit was conducted while the facility was in full operation during a weekday and was receiving liquid waste trucks and the auditor was able to observe the site's activities, odour treatment systems and odour emissions while the facility was processing waste. c. An evaluation of the auditee's complaints register and consultations with Council and the EPA were conducted to assess odour complaints.	

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
			d. The auditor has reviewed the odour assessments and proposed or recommended management / mitigations in the EIS and RTS and compared against the auditee's current performance and management practices. The auditor notes that the main concerns for odour came from the EPA and relate to the sufficiency of odour controls when the facility was at full capacity, as well as acceptance of waste materials that may result in offensive odours, such a expired dairy products, and liquid food waste/oils. Based on the odour monitoring and results, as well as odour observations and complaint records, the auditor is satisfied that the current odour controls/mitigations, and performance is in line with that predicted in the EIS and in line with the RFS.	

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
			e. The auditor believes that with implementation of the corrective actions / recommended improvements in this audit report (i.e. more regular checks on performance of granular carbon filter and replacement of activated carbon granules (3-6 month intervals), installation of DAF fan extraction and ducting to carbon filter and stack, and ongoing monitoring), the existing controls are sufficient to manage potentially offensive odours and their impact on sensitive receivers. However, the auditor is also in agreement with the consultant in the RTS that added odour control measures such as introduction of biotrickling filters, additional carbon filters and/ or extraction and treatment of fugitive odours may need to be considered if future and repeated exceedances are recorded.	

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
			f. The auditor has requested that the auditee respond to the audit findings and proposed corrective actions and recommendations and provide an action plan that identifies and prioritises mitigation measures as outlined in (e) above.	
IA_08	B25. Within six months of commissioning of the Odour Audit required by Condition B24, or as otherwise agreed by the Planning Secretary, the Applicant must submit a copy of the Odour Audit report to the satisfaction of the Planning Secretary, together with the Applicant's response to any recommendations contained in the Odour Audit report.	Audit interview and odour audit inspection on 2/11/23. Letter of approval of odour auditor (Ibrahim Awad of 7th Sense) from DPE dated 4/10/23. Email from Enviro Waste Services Group engaging 7th Sense to commence odour audit dated 4/10/23. Odour Audit Report, by 7th Sense, dated February 2024.	As noted above (IA_07), the proper approval of the Independent Odour Auditor (endorsed by the Planning Secretary) was received on 4/10/23 and the auditor commissioned by the auditee on 4/10/23. The audit was conducted on 2/11/23 and the auditee has until the 4/4/24 to submit a copy of the Odour Audit report.	Not triggered
APPENDIX 2 - APPLICANT'S MANAGEMENT AND MITIGATION MEASURES				
IA_09	Air and odour Maintain existing air and odour mitigation controls including: • Biotrickling filter system;	Audit interview and odour audit inspection on 2/11/23. Biotrickling / carbon filter system	There is a non-compliance with regards the height of the stack which is about 3m high rather than 6m and there is no biotrickling filter systems in place but rather an activated carbon filter system.	**Not-compliant**

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
	• Vertical dispersion stack, 6m above roofline; • Indoor operations; and • Deodoriser.	Maintenance records for carbon filter / replacement records of granulated activated carbon, SOP-029 -V06, Factory Tanks Ventilation, Maintenance Program, Activated Carbon, dated 5/2/24. Vertical dispersion stack Work order and photos for replacement and installation of 6m stack. Procedure for management of odour related to indoor operations SOP/Procedure and management of roller door / enclosure to minimise odour Maintenance procedure and records for DAF. Maintenance records for deodoriser Customer Work Order No. 3078 for supply and installation of auto doser timer and float, and wiring of new equipment for deodoriser – Scott Gould – 20/10/2023. Customer Work Order No. 3078 for installation/maintenance of new timer for auto deodoriser and testing – Scott Gould – 1/11/2023.	The auditor has recommended that the stack height be extended to 6m and that the auditee notify the Department of the incorrect description of the odour treatment system, as well as revised and update the AQOMP to provide an accurate description of the system and re-submit to DPE for approval, and seek advice on any further consultations with the EPA.	

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
EPL 20444 - Notice of Variation of License (2 August 22)				
L2 - Concentration Limits				
IA_10	L2.1 - For each monitoring/discharge point or utilisation area specified in the table\s below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.	Audit interview and inspection on 2/11/23. Odour monitoring reports and results - Ektimo dated 1/4/23 for EPA Point 1 – Biotrickling Filter vent stack for sampling conducted on 30/3/23 for Benzene and VOCs (annual requirement), and results for sampling of Box Filter, DAF and Stack for sampling conducted on 23/11/22.	The auditor notes that there was an exceedance of the odour limit above the DAF unit and has recommended that a fan exhausted odour extraction systems be installed above the DAF and vented to the carbon filter and stack.	**Not-compliant**
IA_11	L2.2 - Air Concentration Limits POINT 1 Pollutant / Units of measure / Averaging period / 100 percentile concentration limit / Reference conditions - Benzene / milligrams per cubic metre / 1 / Dry, 273 K, 101.3 kPa / 1 Hour	Audit interview and inspection on 2/11/23. Odour monitoring reports and results - Ektimo dated 1/4/23 for EPA Point 1 – Biotrickling Filter vent stack for sampling conducted on 30/3/23 for Benzene and VOCs (annual requirement), and results for sampling of Box Filter, DAF and Stack for sampling conducted on 23/11/22.	There auditor notes that there were no exceedances for benzene or VOCs for Point 1 (the stack).	Compliant

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
	- volatile organic compounds as n-propane equivalent / milligrams per cubic meter / 40 / Dry, 273 K, 101.3 kPa / 1 Hour			
L6 - Potentially Offensive Odour				
IA_12	L6.1 The licensee must not cause or permit the emission of offensive odour beyond the boundary of the premises.	Audit interview and inspection on 2/11/23. Auditee complaints register 2023. Auditor consultation emails with Cumberland Council and EPA on 14/11/23 and 17/1/24, respectively.	The auditor notes that there were no odour related complaints received by the auditee, Cumberland Council or the EPA since the commencement of operation under this consent.	Compliant
IA_13	L6.2 No condition of this licence identifies a potentially offensive odour for the purpose of the section 129 of the Protection of the Environment Operations Act 1997.	Audit interview and inspection on 2/11/23. Auditee complaints register. Auditor consultation emails with Cumberland Council and EPA on 14/11/23 and 17/1/24, respectively.	The auditor notes that no sources of potentially offensive odours have been identified outside of what is required to be monitored under this EPL and consent.	Not triggered
O2 - Maintenance of plant and equipment				

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
IA_14	O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity: a) must be maintained in a proper and efficient condition; and b) must be operated in a proper and efficient manner	Audit interview and odour audit inspection on 2/11/23. <u>Biotrickling / carbon filter system</u> Maintenance records for carbon filter / replacement records of granulated activated carbon dated, SOP-029-V06 – Factory Tanks Ventilation – Maintenance Program, Activated Carbon dated 5/2/24. <u>Vertical dispersion stack</u> Work order and photos for replacement and installation of 6m stack. <u>Procedure for management of odour related to indoor operations.</u> SOP/Procedure and management of roller door / enclosure to minimise odour. Maintenance procedure and records for DAF. <u>Maintenance records for deodoriser</u> Customer Work Order No. 3078 for supply and installation of auto doser timer and float, and wiring of new equipment for deodoriser – Scott Gould – 20/10/2023.	The auditor notes that the auditee has generally maintained odour control systems in good working order and has retained records of routine maintenance and improvements. The auditor has recommended that additional corrective actions and/ or improvements be made to the odour control systems in response to an exceedance at the DAF unit. This includes more regular checks and routine replacement of activated carbon granules where required (every 3-6 months), extraction system above the DAF and ducting to carbon filter and dispersion stack; and commissioner of study / review to assess the benefits of implementing additional odour control / treatment systems (e.g. additional carbon filter/biotrickling filter) where there are future and repeated exceedances recorded under the required odour monitoring.	**Observation**

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
		Customer Work Order No. 3078 for installation/maintenance of new timer for auto deodoriser and testing – Scott Gould – 1/11/2023.		
O4 - Processes and Management				
IA_15	O4.5 All liquid waste must be received and treated in an enclosed building with roller doors.	Audit interview and odour audit inspection on 2/11/23. SOP/Procedure and management of roller door / enclosure to minimise odour.	The auditor notes that the auditee has a procedure that requires the roller door to be closed when liquid waste is being received within the building. The auditor witnessed this procedure being implemented on the day of the on-site audit inspection.	Compliant
IA_16	O4.7 All tanks must vent to the biotrickling filter system and the air discharged from the biotrickling filter must be exhausted through a stack 6 m above the roofline.	Audit interview and odour audit inspection on 2/11/23. SOP029 – V05 – Factory Tanks Ventilation, 25/6/22, updated 1/11/23. DAF – Ventilation Chart.	The auditor notes that at the time of the on-site audit inspection, all tanks were vented to the carbon filter system and exhausted through a approx. 3m stack. The auditor notes that the DAF unit which was the source of the odour monitoring exceedance was not vented to the carbon filter and exhausted through the stack. **Non-compliance**	**Not-compliant**

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
			The auditor notes that there was no biotrickling filter system in use at the time of the audit, instead all tanks were being vented to an activated carbon filter. The auditor also notes that the air discharged from the carbon filter was being exhausted through an approx. 3m stack (above the roofline) rather than a 6m stack. The auditor recommends that the AQOMP be revised and updated to provide a proper and accurate description of the odour control systems being used, and that DPE is notified of the non-compliances relating to the above and be provided with a copy the updated AQOMP.	
IA_17	O4.8 The biotrickling filter system stack must have a compliant sampling plane in accordance with AS4323.1-1995.	AQOMP, Rev. 2, Benbow Environmental, dated 28/4/2022. SOP029 – V05 – Factory Tanks Ventilation, 25/6/22, updated 1/11/23. DAF – Ventilation Chart. Email/letter from Ektimo – confirming compliance of sampling plane with AS4323.1-1995.	The auditor notes that the odour testing consultant Ekitimo has checked and verified that the sampling plane they are using is compliant with the standard.	Compliant

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
M2 - Requirement to monitor concentration of pollutants discharged				
IA_18	M2.1 - For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutants specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:	Audit interview and site inspection on 2/11/23. Section 5.1, Air Quality, AQOMP Rev. 2, Benbow Environmental, April 2022. Air Emission Monitoring (Stack Testing) EPL Conditions L2.2 & M2.2 Ektimo testing results report for sampling conducted on 30/3/23, dated 1/5/23 (Box Filter, DAF and Stack). Ektimo test method 31/3/23 confirming compliance with AS4323.3 (NATA accredited) and section 4 – 'Test Methods' of Ektimo test report.	The auditor notes that testing was conducted for the DAF, and there was an exceedance recorded. The auditor recommended that the auditee install a fan extraction system above the DAF and vent to the carbon filter and stack, as required in the AQOMP.	**Not-compliant**
IA_19	M2.2 - Air Monitoring Requirements POINT 1 Pollutant / Units of measure / Frequency / Sampling Method - Benzene / micrograms per cubic metre / Yearly / TM-34	Audit interview and site inspection on 2/11/23. Section 5.1, Air Quality, AQOMP Rev. 2, Benbow Environmental, April 2022. Air Emission Monitoring (Stack Testing) EPL Conditions L2.2 & M2.2	The auditor notes that the auditee engaged a qualified odour testing consultant to conduct an odour test at Point 1 (the stack) The auditor notes that the results for both Benzene and VOCs (as n-propane) was within the limits set in the revised EPL.	Compliant

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
	- volatile organic compounds as n-propane equivalent / micrograms per cubic metre / Yearly / TM-34	Ektimo testing results report for sampling conducted on 30/3/23, dated 1/5/23.		
M3 - Testing methods – concentration limits				
IA_20	M3.1 - Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with: a) any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or b) if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or c) if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.	Audit interview and site inspection on 2/11/23. Section 5.1, Air Quality, AQOMP Rev. 2, Benbow Environmental, April 2022. Air Emission Monitoring (Stack Testing) EPL Conditions L2.2 & M2.2 Ektimo testing results report for sampling conducted on 30/3/23, dated 1/5/23. Ektimo test method 31/3/23 confirming compliance with AS4323.3 (NATA accredited) and section 4 – 'Test Methods' of Ektimo test report.	The auditor notes that the auditee engaged a qualified odour testing consultant to conduct an odour test at Point 1 (the stack) and that the methodology and standards used were as required.	Compliant
M4 - Recording of Pollution Complaints				

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
IA_21	M4.2 The record must include details of the following: a) the date and time of the complaint; b) the method by which the complaint was made; c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect; d) the nature of the complaint; e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and f) if no action was taken by the licensee, the reasons why no action was taken.	Audit interview and site inspection on 2/11/23. Complaints Management, Section 5.1, Air Quality, AQOMP Rev. 2, Benbow Environmental, April 2022. Enviro Waste Services Group, Complaints Register 2022-2023 for the Yennora LWTP.	The auditor notes that the auditee maintains a complaints procedure and record system and that there were no complaints received or registered by the auditee. The auditor has also consulted with Council and the EPA and neither has received nor registered any odour related complaints for the audit period.	Compliant
Air Quality and Odour Management Plan (AQOMP) – 191251-04_AQOMP_Rev2, Benbow Environmental, 28 April 2022				
IA_22	3.2 KEY PERFORMANCE INDICATORS The objective of this AQOMP is to minimise the impacts of the site operations on local air quality. Mitigation measures implemented in order to achieve this objective are detailed in Section 2.2.	Air Quality and Odour Management Plan, Revision 2, Benbow Environmental, Updated as per EPA feedback on 28/4/2022, for DPE approval.	As the odour treatment system in place and in use is a dry activated carbon filter, and not a wet biotrickling filter system, the use and application of pH and temperature testing is not applicable.	**Not-compliant**

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
	Key performance indicators associated with the performance of the site are provided in Table 3-3. Table 3-3: Key Performance Indicators Measure Target Timing Responsibility Documentation Meet relevant air quality criteria. Comply with development consent and POEO Act (See section 3.1) Checked 6 months after commencement of operations and/or in response to odour complaint. - Odour Audit and/or Odour Compliance Report - Odour Complaints - Zero complaints - Ongoing Complaints register - Offensive Odour Emissions - No offensive odour beyond boundary (Intensity Rank <3) Monthly odour monitoring checklist* - Biotrickling Filter System - Temperature Between 15°C - 45°C	a. No Filter system Checking temperature & pH has been conducted for the carbon filter system. b. The auditee communication notes to the auditor stating that after further discussion with Benbow & Ektimo, it has been clarified that: i. the current design of the biotrickling filter (actually carbon filter), is impractical to test pH & Temperature, ii. AQOMP has been modified removing words "BIOTRICKLING FILTER" and Replaced with "Carbon Filteration" iii. DA consent & EPL to reflect the proposed change. iv. Attachment #4_Draft_change-modification application letter. v. Proposed Changes marked in Purple – page 22 and the table 3-3 page 25 vi. Corrected AQOMP re-submitted and uploaded on the portal of the department of the Planning.	The auditor recommends that the auditee notify the Department and EPA of the correct description of the odour treatment system and request that this requirement for pH and temperature testing be removed.	

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
	- Daily monitoring Maintenance records – Biotrickling Filter System - pH 7-8 – Daily monitoring - Maintenance records	c. Enviro waste operations procedure for replacement of the "Granular Activated Carbon" on 9 monthly basis instead of Yearly. d. Next full emission testing is scheduled for 30.03.2023,		
IA_23	5. COMPLIANCE MONITORING PROGRAM 5.1 AIR QUALITY - Point 1: Biotrickling filter system stack - Air Emission Monitoring (Stack Testing) Pollutant / Units of Measure / Frequency / Sampling Method Benzene / Milligrams per cubic metre / Yearly / TM-34 VOCs (as n-propane) / Milligrams per cubic metre / Yearly / TM-34	Audit interview and site inspection on 2/11/23. Section 5.1, Air Quality, AQOMP Rev. 2, Benbow Environmental, April 2022. Air Emission Monitoring (Stack Testing) EPL Conditions L2.2 & M2.2 Ektimo testing results report for sampling conducted on 30/3/23, dated 1/5/23.	The auditor notes that the auditee engaged a qualified odour testing consultant to conduct an odour test at Point 1 (the stack) for the biotrickling filter system (carbon filter) to cover benzene and VOCs, in accordance with standards. The auditor notes that the results for both Benzene and VOCs (as n-propane) was within the limits set in the revised EPL.	Compliant
IA_24	Odour Audit – Table 5-2: Odour Audit Concentrations Location Max Odour Concentration Modelled* - Stack 9,740 OU - Box Filter 2,660 OU	Audit interview and inspection on 2/11/23. Ektimo odour monitoring testing results (reported in Benbow Odour Audit Rev. 2 of June 2023) conducted on 30/3/23 for the stack, box filter and DAF (while operating).	The results for the testing of odour for the stack, box filter and DAF conducted on 23/11/23 show that there was an exceedance for the DAF (2,100 OU sampling concentration compared to 2,050 OU Mx Odour Concentration Modelled) but compliance for the stack and box filter.	**Not-compliant**

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
	- DAF 2,050 OU	Ektimo odour testing report for EPA Point 1 – Biotrickling Filter (carbon filter) conducted on 30/3/23 to Enviro Waste Services on 1/5/23 (R014718), monitoring for EPA Point 1 – biotrickling (carbon) filter vent stack for odour, VOCs and Benzene, Flow rate, velocity, temperature and moisture. Odour Audit Report, Rev. 2, Benbow, June 2023. SOP029 – V05 – Factory Tanks Ventilation, 25/6/22, updated 1/11/23. DAF – Ventilation Chart Odour concentration-EKTIMO report. Solution-Air suction system installed over SOP029- Factory Ventilation system-implemented to reflect the changes.	The auditor notes that at the time of the audit on-site inspection that the DAF unit did not have an air extraction and ventilation system above it and was not reticulated / connected to the carbon filter and emission stack. The results of the odour testing conducted on 30/3/23 show that for the biotrickling (carbon filtration) vent stack the results were below those stipulated in the revised NSW EPA licence 20444 (dated 2 August 2022). The auditor recommends that an odour extraction system be installed above the DAF to reduce the source of odour and address the exceedance identified in the Ektimo report, and that the extraction system be connected/reticulated to the carbon filter and stack and treated.	
IA_25	1.2.2 Odour Monitoring Three (3) locations along the site boundary should be monitored at least once a month, or where unexpected or abnormal odour emissions are being generated.	Audit interview and inspection on 2/11/23. Odour Monitoring - Record of the Odour Intensity, (Enviro Waste Services – internal spreadsheet and record table), June to October 2023.	The auditor confirms that the three locations are being monitored and the results recorded, and that the records have been viewed and verified.	Compliant

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
		Odour monitoring record for a. 3 locations along the site boundary; b. Copy of the monitoring report attached		
IA_26	1.2.2.2 Recording Odour Results STEP 1: Using the German Standard VDI 3882 Part 1 odour intensity scale provided below, record the odour intensity every 30 seconds over a 10 minute period. (It is important to note that it is very easy to become desensitised to odour. Avoiding odorous areas before commencing the assessment is essential. Additionally, the nose must be held closed for the 30 seconds between samples) STEP 2: Enter the highest intensity rank experienced during the 10 minute period into the record table overleaf. Odour needs to be observed monthly. STEP 3: When an odour intensity of 3–6 is experienced, corrective action is required. GERMAN VDI 3882 Odour Intensity Scale	Audit interview and inspection on 2/11/23. Odour Monitoring Procedure - Record of the Odour Intensity, (Enviro Waste Services – internal spreadsheet and record table), June to October 2023. Odour monitoring record for a. 3 locations along the site boundary; b. Copy of the monitoring report attached	The auditor has verified and confirms that the required procedure for observing and ranking odour intensity is being followed.	Compliant

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
	Odour Intensity Intensity Rank (Code) Extremely strong 6 / Very strong 5 / Strong 4 / Distinct 3 Weak 2 / Very weak 1 / Not perceptible 0			
IA_27	2. REPORTING PROTOCOL This reporting protocol is to be used to manage and report any: ▪ Incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria); ▪ complaint; ▪ failure to comply with statutory requirements; and a protocol for periodic review of the plan. Personnel responsible to action investigations and/or corrective measures, should performance issues be identified, or odour complaints occur	Audit interview on 2/11/23. Pollution and Incident Complaint Procedure and Register, Enviro Waste Services Group.	The auditor notes that the auditee maintains a reporting protocol for recording and reporting any incidents and non-compliances, and complaints.	Compliant
IA_28	6.1 COMPLAINTS PROCEDURE	Audit interview and inspection on 2/11/23. Pollution and Incident Complaint Procedure and Register, Enviro Waste Services Group.	The auditor notes that the auditee does maintain a complaints procedure and records.	Compliant

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
	If there is an odour complaint, odour monitoring, as described below is to be undertaken immediately at the monitoring location shown in Section 5.2by the assigned environmental officer, as well as at the location of the complaint (where possible). Odour complaints are to be dealt with as per the Complaints Procedure detailed within the OEMP. The complaints response form (provided overleaf for convenience) within this procedure includes all manner of potential environmental harm issues (including odour) that may cause nuisance at the nearest sensitive receivers. The incident report form and complaints response form below must be filled in, along with the odour monitoring record. These events must be recorded in the register. The air quality and odour control measures should be confirmed that they are in place and maintained and any source of excessive odour emissions or poor air quality identified and stopped.		The auditor notes that no complaints have been lodged by any member of the public, nor recorded by Council or the EPA.	

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
IA_29	8. ENVIRONMENTAL PERFORMANCE IMPROVEMENT AND INVESTIGATION This AQOMP facilitates continual improvement of the site operations in implementing the "Plan, do, check and act" model as follows: • Plan: Identify opportunities and plan for change – through the perpetual review provision and annual monitoring. • Do: implement the change – through the preventative and corrective actions process. • Check: Use data to analyse the results of the change and determine whether it made a difference – through the monitoring and review process. • Act: If the change was successful, implement it on a larger scale	Audit interview and inspection on 2/11/23. Revised AQOMP Rev 3 dated 6/11/23 and submitted to DPE on 18/12/23.	The auditor notes that the auditee has made revisions and updates to the AQOMP in response to the auditors findings and corrective actions and recommendations. Further the auditor notes that the auditee has made changes to the odour control and treatment system including a new procedure for more regular inspections and replacement of carbon granules in the carbon filter, and a fan extraction system on top of DAF unit vented to the carbon filter and stack.	Compliant
IA_30	9. PERPETUAL REVIEW PROVISION To ensure ongoing environmental performance of the development, this AQOMP may require updating on a regular basis.	Audit interview and inspection on 2/11/23. AQOMP, internal Revision 1, by Tony Salloum, reviewed for Planning & Preparation for the Odour Audit, 01.09.2023.	The auditor notes that the auditee has scheduled regular reviews of the AQOMP and will be updating the AQOMP following the submission of the Compliance Report and this Independent Odour Audit Report.	Compliant

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
	It is recommended that the plan AQOMP is reviewed by a suitably qualified environmental professional. This AQOMP and the strategies and programs it contains must be reviewed within every three (3) months of the following: (a) the submission of a Compliance Report; (b) the submission of an incident report; (c) the submission of an Independent Audit; (d) the approval of any modification of the conditions of the consent; orthe issue of a direction of the Planning Secretary which requires a review. The Planning Secretary must be notified in writing that a review is being carried out. Further reviews may be required under this consent may be required whenever it may be necessary to either improve the environmental performance of the development, cater for a modification or comply with a direction.			

Unique ID	Compliance Requirement	Evidence Collected	Independent Audit Findings and Recommendations	Compliance Status
	Where revisions are required, they must be revised to satisfy the Planning Secretary the revised document must be submitted to the Planning Secretary for approval within six weeks of the review.			

APPENDIX B: Auditor Approval

Department of Planning and Environment

Our ref: SSD-10407-PA-10

Simon Saba
General Manager
Enviro Waste Services Group Pty Ltd
14 Kiora Crescent
Yennora NSW 2161

4 October 2023

Subject: Yennora Liquid Waste Treatment Plant – Appointment of Independent Odour Audit Expert

Dear Mr Saba,

I refer to your request for the Planning Secretary's endorsement of Mr Ibrahim Awad of Seventh Sense Sustainability Consultants as a suitably qualified, experienced, and independent person to carry out an Independent Odour Audit of the Yennora Liquid Waste Treatment Plant, as required by Schedule 2, Condition B24 (a) of SSD-10407.

The Department has reviewed the nomination and information you have provided and is satisfied that Mr Awad is suitably qualified, experienced, and independent. Consequently, as nominee of the Planning Secretary, I approve the appointment of Mr Awad to carry out the Independent Odour Audit for the development, in accordance with condition B24 (a).

Should you wish to discuss the matter further, please contact David Ansen, Planning Officer on (02) 8289 6721 or email david.ansen@planning.nsw.gov.au.

Yours sincerely

Lindsey Blecher
Team Leader
Industry Assessments

As nominee of the Planning Secretary

APPENDIX C: Agency consultations

Hi Ibrahim,

Thank you for taking the time to call and discuss issues leading into the independent odour audit.

Confirming that we are satisfied with use of sampling data prepared for an odour audit collected by Ekitmo in November 2022, and that the discussed approach is appropriate.

Please don't hesitate to call or email.

Kind regards,
David Ansen
Planning Officer
Industry Assessments | Department of Planning and Environment

T 02 8289 6721 | **E** david.ansen@planning.nsw.gov.au
Level 31 4 Parramatta Square, 12 Darcy Street, Parramatta NSW 2150

From: Ibrahim Awad <ibrahim.awad@7thsense.com.au>
Sent: Tuesday, 31 October 2023 11:23 AM
To: David Ansen <david.ansen@planning.nsw.gov.au>
Subject: Independent Odour Audit - Yennora Liquid Waste Treatment Plant - SSD-10407

Hi David

Good to talk just then and thanks for your input and advice with respect to the issues/concerns that you would like me to consider in the conduct of the above audit.

I've noted the key points we discussed below:

1. NSW Planning confirmed that the auditor can use/reference the odour sampling data / report provided by Benbow through their air quality contractor Ektimo (conducted on 22 Nov. 22) and that there is no need to conduct new odour sampling for the purpose of this audit.
2. NSW Planning would like the auditor to assess the findings with respect to the odour exceedances recorded in the above odour sampling/report and compare against those predicted in the EIS/RfS, and provide comment/recommendations.
3. The auditor confirmed that NSW Planning supports the auditor approaching Council and the EPA to provide any information with respect to any complaints, incidents and/or notices/penalties relating to odour from this plant.

Please let me know if there is anything that I've missed and/ or if you would like to add.

Thanks,
Ibrahim

Dear Ibrahim,

Thank you for your email. I have searched our databases and have not found any record of public odour complaints reported to the EPA with respect to the Yennora Liquid Waste Treatment Plant (EPL 20444).

You can contact me on the details below if you have any further queries.

Sincerely,
Steven

Steven Tan
Unit Head
Operations
NSW Environment Protection Authority
D 02 9995 6705

www.epa.nsw.gov.au @NSW_EPA

The EPA acknowledges the traditional custodians of the land and waters where we work. As part of the world's oldest surviving culture, we pay our respect to Aboriginal elders past, present and emerging.

Report pollution and environmental incidents 131 555 or +61 2 9995 5555

---------- Forwarded Message ----------
From: ibrahim.awad 7thsense.com.au [ibrahim.awad@7thsense.com.au]
Sent: 17/01/2024 5:16 PM
To: info@epa.nsw.gov.au
Subject: Inquiry on odour complaints - Independent Odour Audit - Yennora Liquid Waste Treatment Facility (SSD-10407)

Dear EPA Officer

I'm the Independent Odour Auditor approved by DPE to conduct the independent odour audit of the Yennora Liquid Waste Treatment Plant – see attached DPE approval letter.

As part of the audit, the auditor typically gets in touch with the EPA and Council to request information on any public odour complaints received with respect this facility.

Could you please confirm if you have received any odour related complaints from the public with respect this facility over the past 2 years, and if so, the number and nature of those complaints?

Hi Mr Awad,

I wish to confirm that a review of the customer request system by our team has found no known recent concerns regarding odour or environmental concerns raised for that site and our staff are not aware of impacts there. The property records also did not show any current orders/notices outstanding against that site issued by Council for such matters.

You may however wish to undertake a GIPA information request via Council's website - see below link:

https://www.cumberland.nsw.gov.au/access-information

This will be a more formal search undertaken by Council's Records department to ensure any and all records including historical records and penalty registers are searched should you require it.

I hope this is of assistance.

Thanks,
Karen

CUMBERLAND CITY COUNCIL

KAREN BOULTER
TEAM LEADER ENVIRONMENTAL HEALTH

16 Memorial Avenue, PO Box 42 Merrylands NSW 2160
T +61 2 8757 9646
E Karen.Boulter@cumberland.nsw.gov.au
W www.cumberland.nsw.gov.au

From: Ibrahim Awad <ibrahim.awad@7thsense.com.au>
Sent: Tuesday, 14 November 2023 10:38 AM
To: Karen Boulter <Karen.Boulter@cumberland.nsw.gov.au>
Subject: [EXTERNAL] Complaints/notices - Independent Environmental and Odour Audit - Yennora Liquid Waste Treatment Plant, 14 Kiora Crescent, Yennora

CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Hi Karen

It was nice to speak to you a couple of weeks ago and sorry it took me a while to get to this email.

As I mentioned over the phone, I have been appointed as the DPE approved Independent Environmental and Odour Auditor for the audit of the above Yenorra Liquid Waste Treatment Facility, against the conditions of consent SSD-10407-PA-9.

As part of the audit, the auditor will typically consult with the relevant Council to ask if there are any issues or concerns that they would like to raise, particularly with respect to any environmental or odour complaints received / registered by Council with respect the above facility, as well as any notices/penalties issued by Council with respect to environmental incidents or non-compliances.

If you could please let me know if you have any of the above issues and/ or any relevant concerns that would be much appreciated.

Please also feel free to give me a call on 0426 832 993 if you would like to discuss.

Thanks,
Ibrahim

Appendix D – Photos – Inspection and Post-Inspection

On-site Inspection Photos	
Photo 1: Liquid waste truck reversing into receiving area	Photo 2: Enclosure for odour containment
Photo 3: Roller doors of enclosure being closed while truck is discharging into liquid waste treatment shed	Photo 4: Deodoriser spray points - outdoor

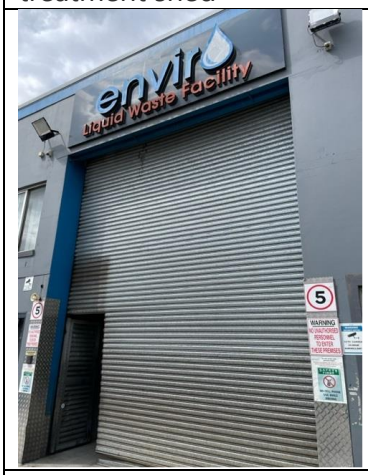



Photo 5: Deodoriser spray point - indoor	Photo 6: Deodorising equipment

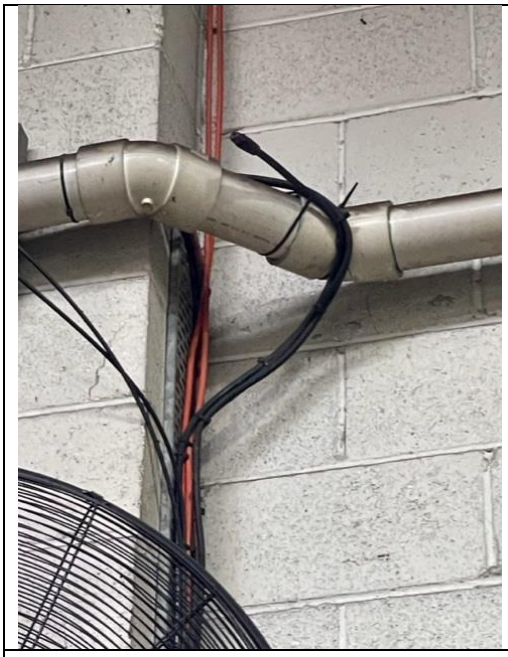


Photo 7: DAF unit

Photo 8: Carbon Filter Tank

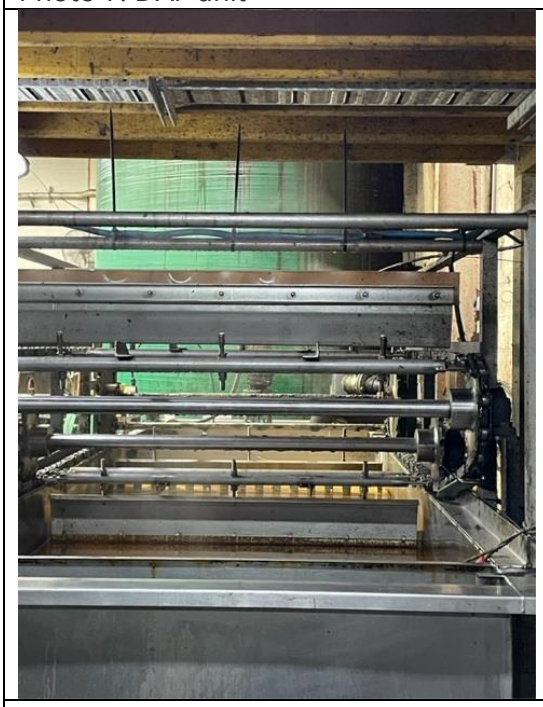


Photo 9: Vented pipe from carbon filter to stack

Photo 10: Stack above roofline

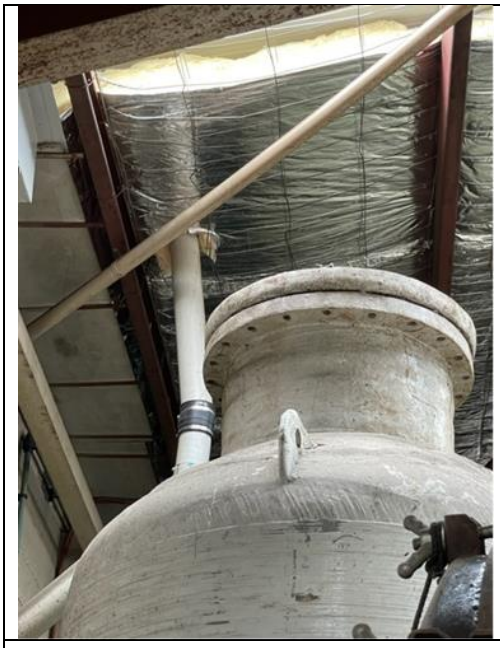


Photo 11: Odour sampling point 1	Photo 12: Odour sampling point 2
Post-inpection Photos	
Photo 1: New fan extracted odour extraction pipes vented to carbon filter and then stack	Photo 2: New DAF ventilation system

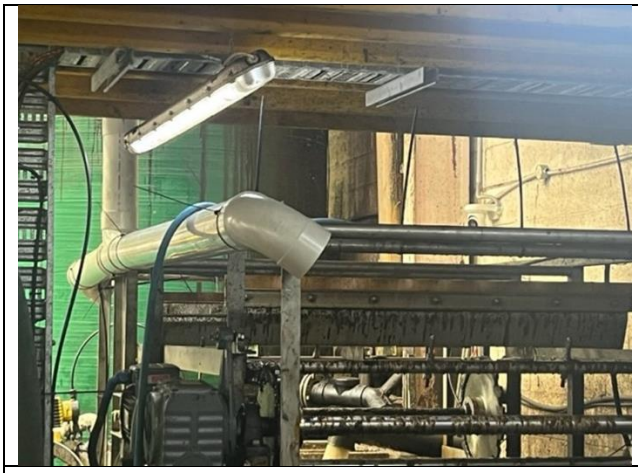
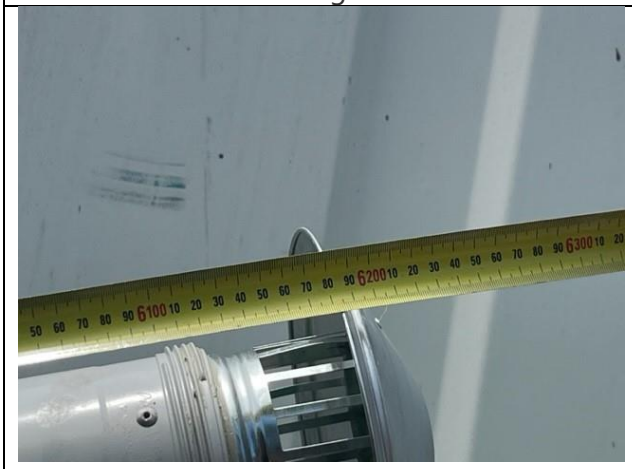


Photo 3: DAF odour extraction in operation

Photo 4: New 6m stack being installed

Photo 5: Evidence of length of stack

Photo 6: New stack in place 6m above roofline



Seventh Sense
Sustainability Consultants