ENVIRONMENTAL MANAGEMENT PLAN
PREPARED FOR
ALS LIMITED
277-289 WOODPARK ROAD, SMITHFIELD NSW 2164

Prepared for: ALS Limited
Calibre Professional Services One Pty Ltd

Prepared by: Matthew Taylor, Environmental Scientist
R T Benbow, Principal Consultant

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Benbow
ENVIRONMENTAL

Engineering a Sustainable Future for Our Environment

Head Office: 25-27 Sherwood Street Northmead NSW 2152 AUSTRALIA
Tel: 61 2 9896 0399 Fax: 61 2 9896 0544
Email: admin@benbowenviro.com.au
Visit our website: www.benbowenviro.com.au

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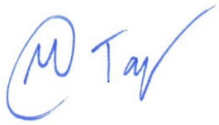
Prepared by:	Position:	Signature:	Date:
Matthew Taylor	Environmental Scientist		07 June 2021

Reviewed by:	Position:	Signature:	Date:
Emma Hansma	Senior Engineer		07 June 2021

Approved by:	Position:	Signature:	Date:
R T Benbow	Principal Consultant		07 June 2021

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Benbow ENVIRONMENTAL
A.B.N. 17 160 013 641

Head Office:
25-27 Sherwood Street Northmead NSW 2152 Australia
P.O. Box 687 Parramatta NSW 2124 Australia
Telephone: +61 2 9896 0399 Facsimile: +61 2 9896 0544
E-mail: admin@benbowenviro.com.au
Visit our Website at www.benbowenviro.com.au

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1. INTRODUCTION

Benbow Environmental have been engaged by Calibre Professional Services One Pty Ltd on behalf of ALS Limited to prepare an Environmental Management Plan (EMP) for the proposed expansion of the existing facility located at 277-289 Woodpark Road, Smithfield NSW 2164.

The site currently operates with Jalco occupying the majority of the building for the use of warehouse distribution of laundry powders and liquid detergents which are manufactured in the adjacent industrial building. ALS only occupies a small proportion of the front of the building. ALS proposes to expand and occupying the entire warehouse building.

The EMP identifies environmental legal requirements and assesses specific impacts based on the site activities. It is the guiding document to facilitate the implementation of environmental management at the site including specific objectives and targets for both the short and long term. A copy of this EMP will be available on site at all times.

A description of the site's operations and the scope and objectives of this EMP are outlined in the following sections.

1.1 OBJECTIVES OF THE EMP

The objectives of the EMP are:

- To ensure all staff and contractors are aware of the legal requirements and responsibilities pertaining to environmental management related to all site operations covered by this EMP;
- To ensure that all staff and contractors are aware of the environmental aspects and impacts related to the site operations;
- To ensure staff and contractors are aware of their responsibilities and are competent in implementing the specific environmental safeguards that apply to their activities;
- To ensure that review processes are incorporated into the plan to reaffirm continual improvement;
- To ensure all relevant legislation is complied with; and
- To minimise any environmental harm as a result of the site operations.

In addition to these objectives, it shall be the aim of senior management to change and improve the EMP with the updating of environmental legislation, the development of new practices and technology, and in the case of complaints or incidents. The EMP should be updated to reflect such changes.

1.2 EMP REQUIREMENTS

This EMP has been prepared in line with the *Guideline for the Preparation for Environmental Management Plans* (NSW DIPNR, 2004). Requirements for the EMP are categorically addressed in Table 1-1.

Table 1-1: EMP Requirements

EMP Requirement	Section of EMP
Background	
Introduction	Section 1
Project Description	Section 2.2
EMP Context	Section 2
EMP Objectives	Section 1.1
Environmental Policy	Section 3.3 and Attachment A5
Environmental Management	
Environmental Management Structure and Responsibility	Section 4.1
Approval and Licencing Requirements	Section 3.2 and Attachment A1
Reporting	Section 4.4.1 and Attachment A4
Environmental Training	Section 4.2
Emergency Contacts and Response	Section 4.4.1
Implementation	
Risk Assessment	Section 3.4 and Attachment A2
Environmental Management Activities and Controls	Section 3.5 and Attachment A4
Environmental Management Plans or Maps	Attachment A4
Environmental Schedules	
Monitor and Review	
Environmental Monitoring	Section 5 and Attachment A4
Environmental Auditing	Section 5.2
Corrective Action	Section 5.4 and Attachment A3
EMP Review	Section 5.3

Additionally, ALS Limited provides a number of operational management plans that include environmental considerations and requirements for their staff. This EMP may be used in conjunction with the following ALS Limited management plans and documents:

- Emergency Response Booklet;
- Disaster Management Plan;
- HSE Training and Competency;
- Incident Investigation and Training;
- Sydney Water Tradewaste Agreement (2017); and
- Any ALS Limited management plan that includes environmental protection measures or procedures.

1.3 Environmental Procedures, Records & Forms

A set of environmental procedures and plans has been compiled into a manual and provided as Attachment A4. These procedures are a pragmatic way for staff and contractors to carry out activities in an environmentally responsible way and ensure this EMP is adequately implemented, and include the following:

- Air Quality Management;
- Noise Management;
- Storm & Surface Water Management;

- Storage & Handling of Hazardous Materials;
- Spill Procedure;
- Waste Management; and
- Workplace Inspection.

Likewise, a set of records and forms associated with the environmental management of the site are also provided as Attachment A3. These registers and forms include:

1. Environmental and Induction Training Register
2. Incident Reporting Forms
3. Complaints Forms
4. Corrective and Preventative Actions Form

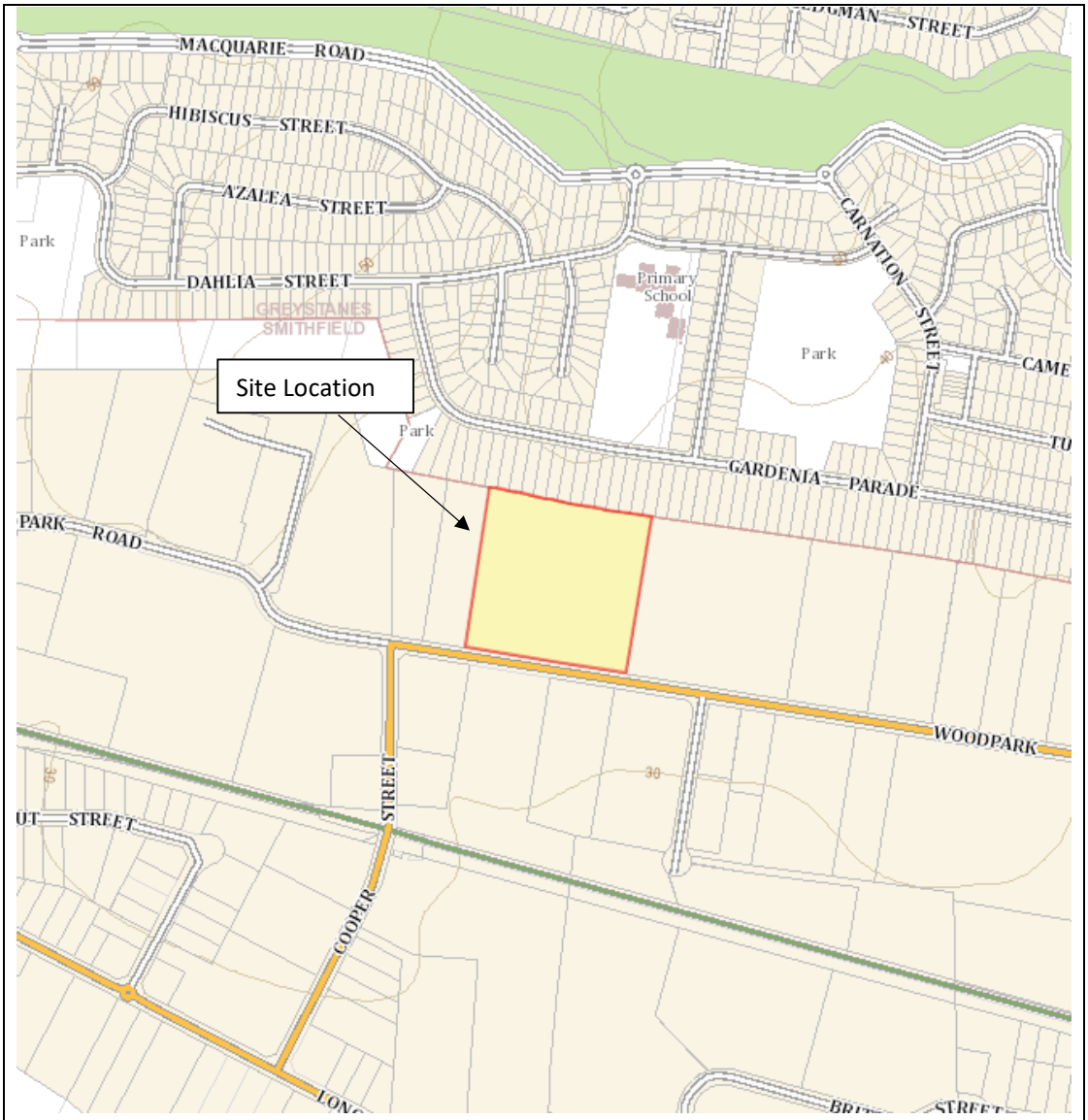
2. SITE DESCRIPTION

2.1 SITE LOCATION

The site is located at 277-289 Woodpark Road, Smithfield NSW 2164 (also known as Lot 1 DP 1024505), as shown in Figure 2-1 and
Figure 2-2.

The site is a fully developed industrial site within IN1 – General Industrial zoned land, as per the *Holroyd Local Environmental Plan 2013*.

Figure 2-1: Site Location (Local Area)



Source: SIX Maps 2021

N Not to scale	LEGEND: Site Boundary	Benbow Environment 25-27 Sherwood Street Northmead NSW 2152

Figure 2-2: Site Location (Aerial Photograph)

Source: SIX Maps 2021

N Not to scale	LEGEND: Site Boundary Development Boundary	Benbow Environment 25-27 Sherwood Street Northmead NSW 2152

2.2 SITE OPERATIONS AND FACILITIES

The proposed development involves the redevelopment of the existing eastern industrial building to provide two levels for laboratory testing facilities within the building following the vacation of the existing warehouse use by Jalco. The existing paved loading dock areas are to be converted to a car parking area. The development includes:

- Construction of a new Level 1 mezzanine floor within the existing warehouse;
- Fitout of the new Level 1 Environmental Laboratory and Eastern offices;
- Construction of plant platforms and installation of rooftop infrastructure;
- New Nitrogen and Argon tank storage location;
- Relocation of existing Environmental Laboratory from southern section of the building into new area on Level 1;
- Creation of a forklift corridor to the rear pallet storage and partial pallet storage construction;
- Reconfiguration of the two eastern driveways into one consolidated driveway;
- Further construction of the new Level 1 mezzanine floor within the existing building at the south-west corner, including a staff balcony over a portion of the front carpark;
- Construction and fitout of new offices and staff amenities in the southern section of the building;
- Construction and fitout of the Food and Pharmaceuticals laboratory, Tribology, Asset Care and Hydrographics laboratories on the Ground Floor;
- Construction of new on-grade carpark inside the rear of the existing warehouse (1,280 m^2);
- Construction and reallocation of a new Dangerous Goods area;
- Relocation of the temporary pedestrian access path and re-instatement of carparks along the eastern boundary;
- Reconfiguration of the rear carpark;
- Creation of a forklift corridor to the rear pallet storage and extension of the pallet storage area.

The site will operate as a commercial laboratory facility that undertakes a number of environmental and chemical analysis for numerous industries. The facility will consolidate five (5) of ALS Limited's divisions onto one site. Division laboratories to be located on site include:

1. Environmental;
2. Food and Pharmacological;
3. Tribology;
4. Hydrographics; and
5. Asset Care.

2.3 HOURS OF OPERATION

The facility will operate 24 hours, 7 days per week.

External truck and forklift movements are to be limited to 7am-10pm Monday to Saturday, 8am-10pm on Sundays and public holidays.

3. PLANNING REQUIREMENTS

The planning and legal requirements that affect the operation of this site include any legislation which relates to activities or potential environmental impacts of the operations.

The following federal and state acts and associated regulations are key legislation pertaining to the environmental management of the site:

- Protection of the Environment Operations Act, 1997 (POEO Act);
- Environmental Planning and Assessment Act, 1979 (EP&A Act); and
- Work Health and Safety Act, 2011 (WHS Act).

Note that changes to legislation or regulations during operations would require a corresponding change to the EMP and specific procedures. Visit http://www.legislation.nsw.gov.au/ for further details.

All licences, permits and approvals required for the project are also presented.

3.1 LEGAL REQUIREMENTS

A register of legal and other requirements for the facility is provided in Attachment A1. Changes to legislation or regulations may require a corresponding change to the EMP.

Affected procedures would need to be modified accordingly.

3.2 LICENCES, PERMITS & APPROVALS

Attachment A1 contains a list of environmental licences, permits and approvals that are required for the site operations. This list needs to be maintained by the Managing Director or delegate and should be reviewed at regular intervals.

3.2.1 Development Consent Conditions

The development consent conditions (DCC) are issued by Council on acceptance of a proposed development or alteration/addition to existing developments under the NSW *Environmental Planning and Assessment Act 1979*. The DCCs that apply to the site need to be fulfilled in order to comply with current environmental and planning legislation, policies and guidelines.

Once DCCs are received, this EMP should be updated to ensure environmental aspects and requirements are met. Typical conditions of consent relevant to environmental issues are to be considered throughout this EMP.

3.2.2 Environmental Protection Licence

The site will not undertake scheduled activities on site, and therefore will not require an environment protection licence (EPL) under the *Protection of the Environment Operations Act 1997*.

3.3 ENVIRONMENTAL POLICY

Values and environmental commitments have been formalised in an Environmental Policy, provided as Attachment A5. This policy is considered integral to the way the company conducts itself and would be incorporated into all operations and functions of the business.

3.4 SIGNIFICANT ENVIRONMENTAL ASPECTS & POTENTIAL IMPACTS

A register of environmental aspects and potential impacts is provided as Attachment A2. A risk assessment was undertaken on each identified potential impact to determine its significance using a risk rating based on the likelihood and consequence descriptors. The risk assessment methodology is provided in the sub-sections that follows.

Mitigation measures were considered in the register.

3.4.1 Risk Assessment Methodology

The methodology described in the following sections was used in assessing the risks associated with site activities.

The following sub-section defines the risk criteria used in this assessment.

3.4.1.1 Consequence Estimation

Consequence descriptor is used to quantify the potential on-site and off-site impacts in terms of environmental, health and financial impacts. Consequence is described in Table 3-1.

Table 3-1: Consequence Table

Level	Descriptor	Consequences or Impact Description
1	Insignificant	Confined on-site environmental impacts able to be promptly rectified. No injuries. Financial loss less than $2,000.
2	Minor	Confined environmental impacts requiring short term recovery with potentially little or no off-site impacts. First Aid treatment. Financial loss $2,000 to $20,000.
3	Moderate	Confined environmental impacts requiring medium term recovery both on-site and off-site. Medical treatment required. Financial loss $20,000 to $200,000,
4	Severe	Unconfined environmental impacts requiring long term recovery and leaving residual damage both on-site and off-site. Extensive injuries, loss of product capability. Financial loss $200,000 to $1M.
5	Catastrophic	Widespread environmental impact requiring long term recovery and leaving major damage both on-site and off-site. Death. Financial loss more than $1M.

3.4.1.2 Likelihood Estimation

This aspect involves determining how likely an event is to occur. Likelihood is the chance that something might happen and is defined for the purposes of this assessment in Table 3-2.

Table 3-2: Likelihood Table

Level	Descriptor	Likelihood Description
A	Almost Certain	Very likely. The event is expected to occur in most circumstances.
B	Likely	Strong possibility. The event will probably occur in most circumstances.
C	Possible	The event might occur at some time.
D	Unlikely	Not expected. There is a slight possibility the event could occur at some time.
E	Rare	Highly unlikely. The event may occur only in exceptional circumstances.

3.4.1.3 Level of Risk

The level of risk is defined by Table 3-3.

Table 3-3: Level of Risk Table

		Consequence				
		Insignificant 1	Minor 2	Moderate 3	Severe 4	Catastrophic 5
Likelihood	A (almost certain)	M (5)	H (10)	H (15)	V (20)	V (25)
	B (likely)	L (4)	M (8)	H (12)	H (16)	V (20)
	C (possible)	L (3)	M (6)	M (9)	H (12)	H (15)
	D (unlikely)	L (2)	L (4)	M (6)	M (8)	H (10)
	E (rare)	L (1)	L (2)	L (3)	L (4)	M (5)

The area shown in red indicates a very high level of risk (V) where mitigation measures are essential.

The area in orange is a high level of risk (H) which is intolerable and where risk reduction is required.

The area shown in yellow indicates a moderate level of risk (M). Whilst the risk is not unacceptable, there should be practical measures taken to lower the risk. For risks where further mitigation is not economically viable, judgment needs to be exercised as to whether the level of risk is acceptable or not. While risk of an incident may be tolerable, steps still need to be taken to reduce the risk level to as low as reasonably practicable.

The area, shown in green, indicates a low level of risk (L) and is broadly considered to be acceptable. Further risk mitigation may not be required/appropriate. However, low and accepted risks should be monitored and routinely reviewed to ensure that they remain acceptable.

3.5 Environmental Objectives, Targets and Programmes

This section details the site environmental objectives, targets and programs to manage the significant environmental aspects identified in Section 3.4.

The recommended environmental objectives, targets and programs for the sites are summarised in Table 3-4. Procedures presented in Attachment A4 provide a detailed description of the management and monitoring for each aspect.

Table 3-4: Environmental Objectives & Performance Targets

Objectives	Actions	Performance Indicators and Targets	Frequency	Responsibility
Maintain 100% environmental compliance	1. Implement this EMP 2. Ensure EMP is implemented by undertaking internal or external audits 3. Comply with applicable environmental laws	• No compliance issues	Annually	Managing Director
Minimise air emissions	1. Implement control measures 2. Undertake weekly inspection	• Weekly inspection checklist complete • No excessive air emissions exiting the site	As per Air Quality Management procedure	Site/ Operations Manager
Minimise noise emissions	1. Implement control measures 2. Undertake weekly inspection	• Weekly inspection checklist complete • No noise complaints	As per Noise Management Procedure	Site/ Operations Manager
Prevent surface water contamination	1. Implement control measures 2. Undertake weekly inspection of stormwater pits	• Weekly inspection checklist complete • Visual water quality indicators met	As per Storm & Surface Water Management Procedure	Site/ Operations Manager
Reduce waste generation	1. Identify waste reduction opportunities 2. Review waste records	• Weekly inspection checklist complete • 10% reduction in waste generated in 2nd year of operation	As per Waste Management Procedure	Site/ Operations Manager
General	1. Improve employee awareness of environmental issues	• Train employees on specific issues related to this EMP within one year of operations	As per Section 4.2	Site/ Operations Manager

4. IMPLEMENTATION AND OPERATION

Successful implementation of this EMP requires knowledge, skills and training, as well as the appropriate allocation of resources, and the clear delegation of responsibilities. It is also important that appropriate communication is established with the various stakeholders involved (e.g. surrounding residential community and regulatory authorities).

This section discusses the following:

- The key environmental roles and responsibilities; and
- Environmental training and appropriate communication strategies/procedures.

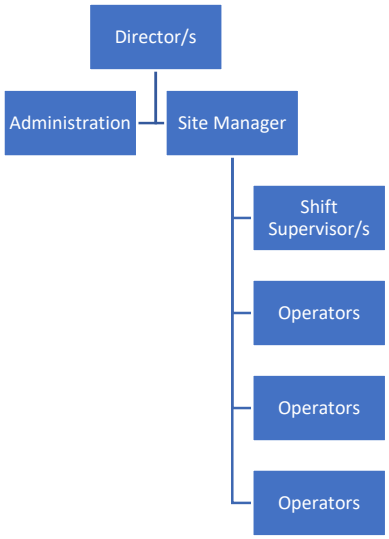
4.1 KEY ROLES AND RESPONSIBILITIES

Key roles and responsibilities for protecting the environment and implementing environmental procedures are provided in Table 4-1. This description provides a guide to the roles the facility would require during operation. The structure of these roles is provided in Figure 4-1.

Table 4-1: Key Roles & Responsibilities

Role/Position	Responsibilities
Managing Director	• Ensure the company environmental policy is implemented in the EMP for the site. • Allow adequate resources to ensure satisfactory implementation and maintenance of the EMP. • Monitor overall EMP performance.
Site/Operations Manager	• Implement EMP across all functions and maintenance areas of the site. • Manage changes to EMP from changes across site operations. • Ensure responsibilities of others are delegated and understood. • Implement corrective and preventative actions as required.
Environmental Officer/Delegate	• Implement EMP across all business functions. • Maintain EMP documentation including updating changes to business activities, legislation, procedures, objectives, targets and programmes and training. • Delegate tasks to other staff members in order to achieve objectives and implement EMP programs. • Annually review and update the EMP. • Ensure appropriate training relating to environmental management is undertaken and assess staff's competence.
Shift Supervisors	• Undertake any delegated EMP tasks to enable effective implementation of the EMP. • Carry out work activities in accordance with the EMP and procedures. • Ensure operators & staff are aware of their environmental responsibilities and legal requirements. • Inform the Environmental manager of any issues with implementing the EMP or if amendments are needed as soon as practicable.
All Staff and Contractors	• Undertake work activities in accordance with the EMP and procedures. • Inform manager of any issues with implementing the EMP, corrective and/or preventative actions required or amendments needed as soon as practicable.

Figure 4-1: Example Organisational Structure Chart



4.2 ENVIRONMENTAL TRAINING

Environmental training is essential for all staff working at the site to ensure that the environmental aspects of the site activities, and their management, are understood.

Training of staff will need to be assessed on a periodic basis, while contractors would be assessed on a job-by-job basis. It is recommended that environmental training be included as part of the site induction and revisited annually. Two separate site induction training programs need to be developed – one for Employees and one for Contractors.

This training shall be conducted by site management prior to those persons carrying out their works on site.

4.2.1 Site Induction

All employees must have successfully completed the site induction training prior to starting work at the site. Employee site induction training would contain an environmental component that would cover the following areas:

- How to communicate and respond in an emergency situation, who to contact and what assistance is available.
- Where to go in an emergency, how to evacuate to a safe location and who will co-ordinate an evacuation.
- Incident response and reporting requirements.
- Aspects of the site operations and how these could potentially impact on the environment.
- Awareness of potential impacts of staff work activities and the environmental benefits of improved personal performance.
- Awareness of the corporate environmental policy and objectives of the site EMP.
- Awareness of legal requirements and individual accountability under environmental legislation applicable to the site, including penalties for offences under environmental legislation.

- How the potential impacts are managed on site – including monitoring, site inspections and any regular maintenance undertaken.
- Understanding of the various roles and responsibilities, with relevant procedures; e.g.: Administration staff should understand how the complaints register is implemented, and Staff responsible for daily site operations should be trained in any inspection checklists and how to follow up on any non-conformances.

Shortfalls could be addressed in toolbox talks or by specific on-site training.

4.2.2 Training for Contractors

Contractors would be physically inducted by the Site/Operations Manager, who would provide a tour of the site and outline site policy, procedures, and scope of works during the tour. Also included in the site induction for contractors would be where to go in the event of an emergency, how to evacuate to a safe location and who will co-ordinate an evacuation.

4.2.3 Regular Site Meetings/Toolbox Talks

Site meetings/Toolbox talks would be undertaken monthly. In addition to safety aspects, the agenda for the meetings should include the following environmental components:

- Any environmental spills, incidents or complaints;
- Results of any environmental monitoring undertaken; and
- Outcomes of the Workplace Inspection.

4.2.4 Specific Environmental Training

Specific environmental training should be arranged for any environmental matters that need to be communicated to employees. These would be organised on an as needs basis.

4.2.5 Training Register

At the completion of the site induction, all employees and contractors must sign a document stating that they understand and agree to abide by the site's procedures.

Details of all environmental training programs need to be recorded. A training register has been provided as a form in Attachment A3.

4.3 COMMUNICATION

The Managing Director and/or Site/Operations Manager would communicate with relevant stakeholders when required. Stakeholders may include community groups, sub-contractors, regulatory authorities, non-regulatory agencies and the State Government.

4.3.1 Community Relations

It is important to foster open communications with the other stakeholders of the site to ensure that an integrated approach is used to deal with issues which reflect on all stakeholders. Regular communications with adjacent facilities should be undertaken to ensure any environmental management issues from either party are addressed promptly.

4.3.1.1 Complaints Response

All complaints or enquiries should be handled in a courteous manner. Every complaint is a potential opportunity for improvement in environmental management. A procedure for handling complaints is provided below:

- Record in Log Book and on a Complaint Response Form:
  - Name of Complainant;
  - Address;
  - Telephone Number; and
  - Details of Complaint: date, time of occurrence, precise location of event.

- Connect/refer caller to one of the following staff members who are authorised to discuss the complaint with the caller:
  - Managing Director/s; and
  - Personnel with environmental responsibilities.

- Authorised staff member requests details of the complaint or information required by the caller and completes the Complaint Response Form and the Complaint Response Logbook Index (Attachment A3).

- Complaint is investigated and discussed at a toolbox meeting to determine whether it warrants being added to the incident register and whether a more detailed investigation is required.

- If further investigation is required, an incident number is allocated and recorded on the Complaint Response Logbook & Incident Register. If no investigation is warranted, the complaint can be closed out.

- Any response, investigations and actions taken to rectify the issue are recorded in the incident register.

4.3.2 Regulatory Authorities

Communications with regulatory authorities, such as the local council, shall occur on an as-needed basis. All communication with regulatory authorities concerning environmental matters is to be noted and records of any subsequent actions appropriately filed.

4.3.3 Internal Communication

The site management is to establish simple yet effective communication channels for implementation of the EMP. Typical methods of communication that may suit the size of the operation include the Regular Site Meetings or Toolbox Talks with formal records.

Document control and written communication would be necessary when new contractors or employees are trained or changes are made to the EMP or any other matters that affect the holistic environmental management of the site.

4.4 INCIDENTS & EMERGENCIES

Emergency situations (including pollution incidents) shall be dealt with in accordance with the Emergency Plan (EP).

An Emergency Control Organisation (ECO) needs to be established for the site and should consist of a group of personnel that has the responsibility of providing first response action to an emergency in terms of organising the necessary resources, communications, evacuation of personnel and implementing any corrective actions that may be necessary to return the emergency situation back to normal. The same applies for a pollution incident. Specific details of the ECO are provided in the EP.

4.4.1 Response Actions for Pollution Incidents

In the event of a pollution incident, the site's Pollution Incident Response Management Plan should be implemented. The first response of personnel on site based on their initial assessment is to phone 000 in an emergency.

Initial assessment needs to be made by ECO members present on site. If safe to do so:

1. Remove all persons from immediate danger
2. Secure the area
3. Commence evacuation

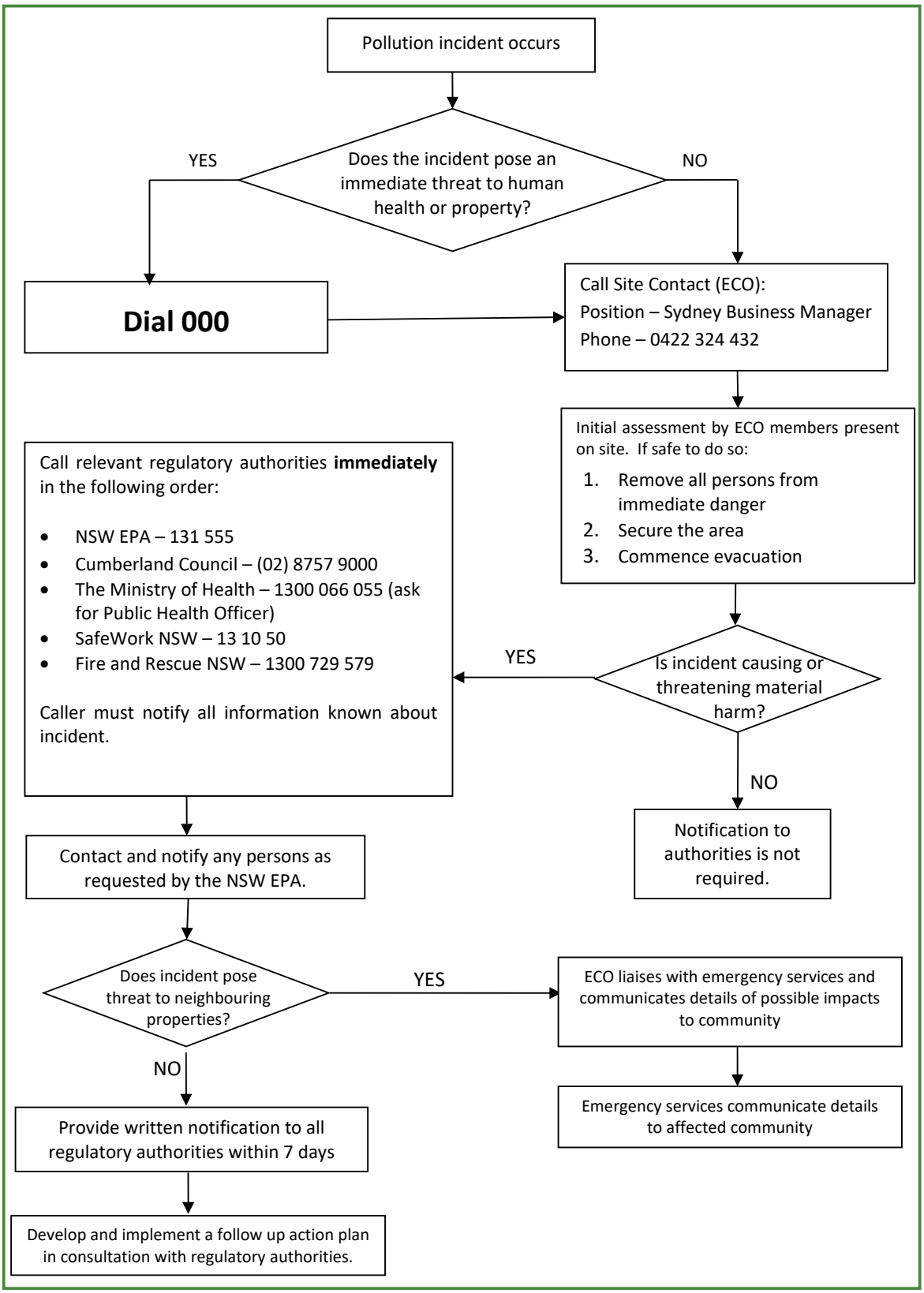
Under Part 5.7 of the POEO Act, a pollution incident that occurs in the course of an activity so that material harm to the environment is caused or threatened must be notified immediately to relevant authorities.

If the incident presents an immediate threat to human health or property, call 000 immediately. If the incident does not require emergency services, notify the following regulatory bodies, in order of relevance, as follows:

1. NSW Environment Protection Authority	131 555
2. Cumberland Council	(02) 8757 9000
3. The Ministry of Health	1300 066 055 (ask for Public Health Officer)
4. SafeWork NSW	13 10 50
5. Fire and Rescue NSW	1300 729 579

A simple flowchart detailing how to respond in the event of a pollution incident is provided as Figure 4-2.

Figure 4-2: Response Plan for Pollution Incident



5. MONITORING, CORRECTIVE & PREVENTATIVE ACTIONS

This section details the monitoring and inspection plan to facilitate proper implementation, maintenance and due diligence of the EMP. Corrective and preventative actions are also detailed to facilitate continuous improvement of environmental management across operations.

5.1 ENVIRONMENTAL INSPECTIONS

Regular inspections of the facility would assess the adequacy of control measures implemented at the site, so that corrective and/or preventative action can be taken where required.

Weekly inspections are recommended. An Inspection Checklist as a procedure is provided in Attachment A4. This covers air, noise, water, waste/litter and general management of the site.

5.2 ENVIRONMENTAL AUDITING

Auditing is necessary to evaluate compliance and shall be conducted on a regular basis. It is recommended that external consultants conduct a review of the audit every 2-5 years. Independence must be demonstrated by the freedom from responsibility for the activity being audited or freedom from bias and conflict of interest.

Internal environmental management system audits shall be undertaken. The audit shall encompass the assessment of the following:

- Assess the effectiveness of the environmental control implemented on site, and the procedures used in the application of the EMP;
- Review of Monitoring and Inspection Plan results and/or reports for non-conformances, and records of corrective and preventive actions on areas of non-compliance to the EMP. Assessment of the adequacy of these actions;
- Degree of conformance to nominated procedures, and review of complaint register;
- Identification of areas of the system which could be improved, and identifying where possible missing procedures, procedures which require updating, documentation which could be simplified, or other target areas;
- Overall commitment to, and implementation of, the EMP;
- Updates in industry best practice;
- Changes in legislation;
- Annual set of objectives/target; and
- Revisions to objectives/targets due to Regional or Global initiatives by Government.

5.3 EMP Review

Throughout operation, certain circumstances may change and as a result, modifications and/or refinements to the EMP may be required. Therefore, a review of the EMP is recommended to be annually, to coincide with the end of the fiscal/financial year.

Reviews shall be undertaken by the Managing Director and/or Appointed Environmental Officer and delegates and would need to consider the following:

- Changes to site activities, raw materials and/or chemicals;
- Changes to legislation;
- Variations to licences, approvals, consents or permits;
- Any monitoring, inspection and audit results;
- Any pollution incidents or complaints; and
- The effectiveness of safeguards and controls.

Outcomes of the EMP reviews may require modifications to the EMP and related documentation.

5.4 Corrective and Preventative Actions

This section of the EMP details non-conformance with the EMP, and corrective and preventative actions. Non-conformances include errors and deficiencies that can be identified through the Inspection Checklist, Environmental Monitoring results and/or from any complaints received in relation to site activities. Non-conformances should be effectively logged and promptly resolved. Non-conformances are to be reviewed by site management who will coordinate the appropriate corrective and preventative actions to address the respective non-conformances. Site management will then inform any staff or contractors who are affected by significant non-conformances about the subsequent required actions.

5.4.1 Request for Corrective Action

Corrective Actions are an ideal way to demonstrate and account for any issues and improvements to the EMP. A Corrective Action Request (CAR) should be issued and processed using the CAR form provided in Attachment A3. A CAR can be initiated by any staff member, and should be passed to the appropriate staff or contractors responsible for the source of the non-conformance. Different events often initiate a CAR being raised, some typical ones follow:

- Council or other regulatory agency direction or request;
- Detection of non-conformances during site inspection;
- Public complaints;
- Periodic meetings; and/or
- Environmental incident or near miss.

Site management shall ensure that CARs are actioned within a reasonable time frame. Records shall be maintained by the site management for all relevant corrective actions.

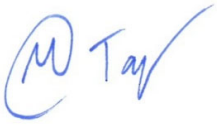
5.5 RECORDS

Records relating to non-conformances, and their corrective and/or preventive action request forms, are maintained by site management. Other types of records, such as environmental monitoring results or correspondence between any regulatory authorities, shall also be maintained by site management.

These records would be kept in the office on site and would be compiled, as access to these records may occasionally be required by stakeholders and by regulatory authorities.

Reports and records concerning any environmental audits and regular inspections of the operations should also be maintained and archived.

This concludes the EMP.



Matthew Taylor
Environmental Scientist

R T Benbow
Principal Consultant

6. LIMITATIONS

Our services for this project are carried out in accordance with our current professional standards for site assessment investigations. No guarantees are either expressed or implied.

This report has been prepared solely for the use of ALS Limited, as per our agreement for providing environmental services. Only ALS Limited is entitled to rely upon the findings in the report within the scope of work described in this report. Otherwise, no responsibility is accepted for the use of any part of the report by another in any other context or for any other purpose.

Although all due care has been taken in the preparation of this study, no warranty is given, nor liability accepted (except that otherwise required by law) in relation to any of the information contained within this document. We accept no responsibility for the accuracy of any data or information provided to us by ALS Limited for the purposes of preparing this report.

Any opinions and judgements expressed herein, which are based on our understanding and interpretation of current regulatory standards, should not be construed as legal advice.

ATTACHMENTS

Attachment A1: Legal Register

Attachment A1: Legal and Other Requirements

Legislation	Activity / Aspect	Section / Clause	Requirements	Comments
Environmental Planning and Assessment Act 1979	All	All	Comply with development consent conditions (DCCs) as set out by Cumberland Council.	Compliance with all DCCs is required.
Protection of the Environment Operations Act 1997	Environmental Harm	S115 S116 S117	The principal objective of the legislation is to avoid causing environmental harm. Harm is defined in the Protection of the Environment Operations Act 1997 as being: ***"harm"**, in relation to the environment includes any direct or indirect alteration of the environment that has the effect of degrading the environment and, without limiting the generality of the above includes any act or omission that results in pollution.* ***"Pollution"** means:* *(a) water pollution, or* *(b) air pollution, or* *(c) noise pollution, or* *(d) land pollution.* Clause 115 relates to the offence for wilful or negligent disposal of waste likely to harm the environment. Clause 116 relates to offences for wilful or negligent causing leaks, spills or escapes of substances likely to harm the environment. Clause 117 relates to offences for wilful or negligent emission of ozone depleting substances likely to harm the environment.	The implementation of the EMP would ensure that the environmental impacts of the activities taking place on site are minimised. Safeguards and procedures would ensure that site operations avoid causing environmental harm or pollution.

Legislation	Activity / Aspect	Section / Clause	Requirements	Comments
	Water Pollution	S120 S123	Clause 120 relates to the prohibition of pollution of waters: *A person who pollutes any waters is guilty of an offence.* Clause 123 details the maximum penalty for water pollution offences. Tier 2 penalties apply. *A person who is guilty of an offence under this Part is liable, on conviction.*	Applies. Safeguards exist to prevent waste/sediments entering the stormwater network and migrating off-site. The site holds a tradewaste agreement. Wastewater generated on site is treated before being discharged to the sewer. Responsibility extends to all employees. If found guilty of a water pollution offence, both the company and the individual can be held liable.

Legislation	Activity / Aspect	Section / Clause	Requirements	Comments
	Air Pollution and Odour	Part 5.4	Clause 124 relates to the operation of plant (other than domestic plant): *The occupier of any premises who operates any plant in or on those premises in such a manner as to cause air pollution from those premises is guilty of an offence if the air pollution so caused, or any part of the air pollution so caused, is caused by the occupier's failure:* *(a) to maintain the plant in an efficient condition, or* *(b) to operate the plant in a proper and efficient manner.* Clause 125 relates to maintenance work on plant. Clause 126 relates to dealing with materials. Clause 128 relates to standards of air impurities not to be exceeded. Clause 129 relates to the emission of odours from licensed premises. Clause 132 details the maximum penalty for air pollution offences. Tier 2 penalties apply. *A person who is guilty of an offence under this Division is liable, on conviction*	Potential for air pollution to occur is associated with chemical vapours, particulate matter and fugitive gas emissions from laboratory operation. Air emissions on site are appropriately managed with the use of wet air scrubbers, filters and rooftop exhaust stacks. Odour is not expected during normal facility operation. Responsibility extends to all employees. If found guilty of an air pollution offence, both the company and the individual can be held liable.

Legislation	Activity / Aspect	Section / Clause	Requirements	Comments
	Noise Pollution	S139 S140 S141	Clause 139 relates to the operation of plant: *The occupier of any premises who operates any plant (other than control equipment) at those premises in such a manner as to cause the emission of noise from those premises is guilty of an offence of the noise so caused, or any part of it, is caused by the occupier's failure:* *(a) To maintain the plant in an efficient condition, or* *(b) To operate the plant in a proper and efficient manner.* Clause 140 relates to dealing with materials: *The occupier of any premises who deals with materials in or on premises in such a manner as to cause the emission of noise from those premises is guilty of an offence if the noise so caused, or any part of it, is caused by the occupier's failure to deal with those materials in a proper and efficient manner.* Clause 141 details the maximum penalty for noise offences. Tier 2 offences apply. *A person who is guilty of an offence under this Part is liable, on conviction.*	Applies. The main sources of noise are associated with on-site plant (mobile and stationary) operation and vehicle movements. A Noise Impact Assessment (NIA) has been undertaken and found that noise levels would be met at all surrounding residential receivers during all time periods. Noise management is included in the EMP (Attachment A4).
	Land Pollution	S142A	Clause 142A relates to the pollution of land. Tier 2 penalties apply. *A person who pollutes land is guilty of an offence.*	Waste management is included in the EMP (Attachment A4) and the Waste Management Plan (WMP).

Legislation	Activity / Aspect	Section / Clause	Requirements	Comments
	Waste	S143 S145	Waste needs to be disposed of in a manner which does not create or is likely to create environmental harm. Clause 143 relates to the unlawful transporting or depositing of waste: *If a person transports waste to a place that cannot lawfully be used as a waste facility for that waste, or causes or permits waste to be so transported:* *(a) the person, and* *(b) if the person is not the owner of the waste, the owner,* *are each guilty of an offence.* *All waste must be classified in accordance with the EPA's Waste Classification Guidelines.* Clause 145 relates to general littering.	All waste disposal is undertaken by appropriately licensed waste contractors. Waste disposal must be undertaken in accordance with the NSW EPA's *Waste Classification Guidelines*. All waste should be stored in an environmentally safe manner. Hazardous waste is to be stored in an appropriately safe and secure manner. False or misleading information regarding pollution incidents is an offence under the Act.
	Duty to notify pollution incidents	S148	Clause 148 *Pollution incidents causing or threatening material harm to be notified.* • *Kinds of incidents to be notified* *This Part applies where a pollution incident occurs in the course of an activity so that material harm to the environment is caused or threatened.* • *Duty of person carrying on activity to notify* *A person carrying on the activity must, immediately after the person becomes aware of the incident, notify each relevant authority of the incident and all relevant information about it.*	In the event of an incident, the duty to notify extends to all staff and contractors of the site. Staff and/or contractors are required to notify the employer. When management is not contactable, they are required to notify the relevant authorities. Refer to Reporting Requirements in Section 4.4.1 of the EMP.

Legislation	Activity / Aspect	Section / Clause	Requirements	Comments
	Control equipment	S167	Clause 167 relates to the responsibility of the occupier of any premises to maintain and operate any control equipment installed at the premises in a proper and efficient manner.	This applies to the wet air scrubbing system, HEPA filters and stormwater network.
Protection of the Environment Operations (Clean Air) Regulation 2010	Standards of concentration for scheduled premises	Sch 4	General standards of concentration apply to scheduled premises.	Does not apply, not a scheduled premises.
Protection of the Environment Operations (Waste) Regulation 2014	Waste and transport	Part 4 Part 5	Part 4 relates to the tracking of certain waste transported within, out of and into NSW. Part 5 relates to reporting on transportation of waste from NSW to an interstate waste facility if the waste has been generated in the metropolitan levy area.	Trackable waste associated with the facility would abide by parts 4 and 5.
Water Management Act 2000	Water access licence	S56 S60A S89 S91A	A licence may be required in the relevant water sharing plan area for the right to share available water from a particular water source. Water cannot be taken from a waterbody without a licence.	Does not apply.
	Water management works	S90 S91B S91C S91D	Approval is required for construction and/or use of a water supply work, drainage work or flood work.	Does not apply.
	Waterfront land	S91	A controlled activity approval is required for works on or under waterfront land.	Does not apply.
Water Act 1912 Applies to water sources in NSW where water sharing plans have not commenced.	Surface water	S10	A licence or permit may be required for the taking and using of water from a stream or river, capture of water in a farm dam.	Does not apply.
	Groundwater	S112	A licence may be required for extraction of groundwater.	Does not apply.

Legislation	Activity / Aspect	Section / Clause	Requirements	Comments
Work Health and Safety Regulation 2017	Labelling of hazardous chemicals	S341	Hazardous chemical used, handled or stored at the workplace must be correctly labelled in accordance with clause 335. Schedule 9, Part 3 of the Regulation sets out requirements for labelling.	All hazardous chemicals on site must be correctly labelled.
	Hazardous chemicals register	S346	A register of hazardous chemicals used, handled and stored at the site needs to be prepared and maintained and include the current safety data sheets for each hazardous chemical listed.	A copy of the hazardous chemical register will be available within the office.
	Manifest of hazardous chemicals	S347	If quantities of hazardous chemicals exceed manifest quantities in Schedule 11, a manifest of hazardous chemicals must be prepared. The manifest must comply with Schedule 12 of the regulation.	Does not apply.
	Manifest Quantities	S348	Notification to SafeWork is required if manifest quantities in Schedule 11 are exceeded.	Does not apply.
	Placarding Requirements	S349 S350	Outer warning placards are to be displayed if the placard quantity in Schedule 11 is exceeded. A placard must comply with Schedule 13.	Placarding of hazardous chemicals needs to comply with Schedule 13.
	Emergency Plans and Safety Equipment	S359 S360 S361 S362	Fire protection and firefighting equipment designed for the types of hazardous chemicals used and stored at the site must be installed, tested and maintained. Equipment must be available for use in an emergency.	Appropriate fire protection equipment is required at the facility.
Dangerous Goods (Road and Rail Transport) Act 2008	Transport of dangerous goods	S9	Clause 9 requires transport of dangerous goods by road or rail to be in a safe manner.	DGs shall be transported by a licensed contractor.
Contaminated Land Management Act 1997	Reporting contamination	S60	Clause 60 relates to the duty of a person undertaking activities that have contaminated land and the land owner to report contamination.	Applies upon discovery and/or incident.

Legislation	Activity / Aspect	Section / Clause	Requirements	Comments
Noxious Weeds Act 1993	Weed control & reporting	S12 S15	Clause 12 relates to private occupiers of land responsibility to control noxious weeds on land. Clause 15 requires occupiers of land to notify local control authority of notifiable weeds.	Applies upon discovery.
Biodiversity Conservation Act 2016 No 63	Protection of animals and plants	Part 2	Clause 2.1 relates to offences for harming animals that are a threatened species, part of a threatened ecological community or a protected animal. Clause 2.2 relates to offences for picking plants. Clause 2.3 and 2.4 relate to offences for damaging areas of outstanding biodiversity and habitat of threatened species or ecological community.	Does not apply.
	Clearing of native vegetation	S2.11	A biodiversity conservation licence is required for clearing of native vegetation	Does not apply.
Environment Protection and Biodiversity Conservation Act 1999 (Cth)	Flora and fauna conservation	Part 13	A permit is required for activities that will affect listed species and ecological communities within a commonwealth area.	Does not apply.
Heritage Act 1977	Heritage	S57 S139 S146	Clause 57 requires approval for work to any item to which an interim heritage order or listing on the state heritage register applies. Clause 139 requires that an excavation permit is required to disturb any land knowing or having reasonable cause to suspect disturbance may uncover a relic. Clause 146 requires that discovery of a relic must be notified to the Heritage Council.	Applies upon discovery.
Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Cth)	Protection of places and objects	S20 S22	Clause 20 relates to reporting of any discovery of Aboriginal remains to the Minister. Clause 22 requires compliance with the provisions of any declaration in relation to a significant Aboriginal area or object.	Applies upon discovery.

Legislation	Activity / Aspect	Section / Clause	Requirements	Comments
National Greenhouse and Energy Reporting Act 2007 and Regulations 2008	Greenhouse Gas emissions	S13	Requirement for the accounting and reporting of greenhouse gases emitted and energy consumed or produced during a financial year if the facility meets the thresholds in Clause 13.	Does not apply.
Fisheries Management Act 1994	Permits	S144 S201 S205 S219	Clause 144: Aquaculture permit Clause 201: Permit to carry out dredging or reclamation work Clause 205: Permit to cut, remove, damage or destroy marine vegetation on public water land or an aquaculture lease, or on the foreshore of any such land or lease. Clause 219: Permit to: (a) set a net, netting or other material, or (b) construct or alter a dam, floodgate, causeway or weir, or (c) otherwise create an obstruction, across or within a bay, inlet, river or creek, or across or around a flat	Does not apply.

Table A1-1: Licences, Approvals and Permits

Type	Relevant Legislation	Required?	Agency
LICENCES			
Environment Protection Licence	Schedule 1 of the Protection of the Environment Operations Act 1997	No	NSW EPA
Surface Water Licence	Water Act 1912	No	Office of Water
Groundwater Licence	Water Act 1912	No	Office of Water
Water Access Licence	Water Management Act 2000	No	Office of Water
PERMITS			
Permits under the Fisheries Management Act	Fisheries Management Act 1994	No	DPI Fishing and Aquaculture
Aboriginal Heritage Impact Permit	National Parks & Wildlife Act 1974	No	OEH
Permits under the Heritage Act 1977	Heritage Act 1977	No	OEH
APPROVALS			
Development Consent	Environmental Planning and Assessment Act 1979	**Yes**	Cumberland Council
Alter or erect improvements within a mine subsidence district	Mine Subsidence Compensation Act 1961	No	Mine Subsidence Board
Consent for works and structures in a public road	Roads Act 1993	No	RMS
Sub-division or development of bush fire prone land	Rural Fires Act 1997	No	Commissioner of the NSW Rural Fire Service

Attachment A2: Environmental Aspects Register

Environmental Aspects Register

Environmental Aspects Register for ALS Limited – 277-289 Woodpark Road, Smithfield NSW 2164										
Activity	Aspect	Potential Impacts on the Environment	Pre-Control Risk			Mitigation Measures (Physical, Procedures and Plans)	Post-Control Risk		
			Consequence	Likelihood	Raw Risk		Consequence	Likelihood	Residual Risk
Laboratory Operations	General commercial laboratory analysis and operational activities	Noise emissions	2	C	M	Limit external truck and forklift movement times, limit vehicle idling times, locate noise generating equipment within building, separation distance from sensitive receivers, weekly inspection checklist	2	D	L
		Generation of air pollutants	3	B	H	Air pollutants exhausted through wet air scrubbing system, particles collected in HEPA filters, filtered air discharged through rooftop stacks, weekly inspection checklist	2	D	L
		Contamination of water	3	B	H	Hazardous waste stored inside dedicated bins/sealed containers, lockable waste receptacles/storage areas, waste collected regularly by licenced contractor, wastewater treated on site and discharged under Tradewaste Agreement, fully sealed surfaces, bunded storage areas, spill kits, weekly inspection checklist	2	D	L
		Contamination of stormwater runoff	3	B	H	Fully sealed surfaces, stormwater pits covered in filters, operational activities undertaken within building, roofwater collected internally and discharged directly to stormwater network, weekly inspection checklist	2	D	L
		Excess accumulation of unwanted waste	2	D	L	Dedicated waste storage bins, waste collected by licenced contractor, weekly inspection checklist	1	D	L
Vehicle Movements	Deliveries/handling of materials	Noise emissions	2	C	M	Limit external truck and forklift movement times, limit vehicle idling times, separation distance from sensitive receivers, weekly inspection checklist	2	D	L
		Generation of air pollutants	3	C	M	Handling/loading/unloading activities undertaken in warehouse, sealed surfaces, no loose materials handled, limit vehicle idling time, weekly inspection checklist	2	D	L
		Excessive use of energy, fossil fuel resources	1	E	L	None	1	E	L
	Staff/visitor vehicles	Noise emissions	2	D	L	Dedicated parking bays at front and rear of site, separation distance from sensitive receivers, weekly inspection checklist	2	D	L

Environmental Aspects Register for ALS Limited – 277-289 Woodpark Road, Smithfield NSW 2164										
Activity	Aspect	Potential Impacts on the Environment	Pre-Control Risk			Mitigation Measures (Physical, Procedures and Plans)	Post-Control Risk		
			Consequence	Likelihood	Raw Risk		Consequence	Likelihood	Residual Risk
		Generation of air pollutants	2	D	L	Sealed driving surfaces, limit vehicle idling time, weekly inspection checklist	1	D	L
		Excessive use of energy, fossil fuel resources	1	E	L	None	1	E	L
WASTE MANAGEMENT	General waste (general solid waste, recycling waste)	Potential for general waste to escape onto land or into waterways resulting in contamination	3	D	M	Waste stored inside dedicated bins, waste collected by licenced contractor, fully sealed surfaces, weekly inspection checklist	2	D	L
		Generation of odour	2	D	L	Non-odorous general wastes stored on site, dedicated general waste bins, waste collected regularly by licenced contractor, weekly inspection checklist	2	D	L
		Incorrect management or disposal of wastes	3	D	M	Dedicated general waste bins, waste collected regularly by licenced contractor, weekly inspection checklist	2	D	L
	Hazardous waste (chemical waste, biological waste)	Potential for hazardous waste to escape onto land or into waterways resulting in contamination	3	B	H	Hazardous waste stored inside dedicated bins/sealed containers, lockable waste receptacles/storage areas, waste collected regularly by licenced contractor, fully sealed surfaces, bunded storage areas, spill kits, weekly inspection checklist	2	D	L
		Incorrect disposal/handling of liquid wastes	3	B	H	Hazardous waste stored inside dedicated bins/sealed containers, lockable waste receptacles/storage areas, waste collected regularly by licenced contractor, wastewater treated on site and discharged under Tradewaste Agreeement, fully sealed surfaces, bunded storage areas, spill kits, weekly inspection checklist	2	D	L
		Generation of odour	2	D	L	Non-odorous hazardous wastes stored on site, dedicated hazardous waste bins/sealed containers, waste collected regularly by licenced contractor, weekly inspection checklist	2	D	L
		Incorrect management or disposal of hazardous wastes	3	B	H	Hazardous waste stored inside dedicated bins, lockable waste receptacles/storage areas, waste collected regularly by licenced contractor, fully sealed surfaces, bunded storage areas, spill kits, weekly inspection checklist	2	D	L
	Amenity & other office waste	Incorrect management of waste, litter	1	C	L	Designated waste bins, weekly inspection checklist	1	E	L

Environmental Aspects Register for ALS Limited – 277-289 Woodpark Road, Smithfield NSW 2164										
Activity	Aspect	Potential Impacts on the Environment	Pre-Control Risk			Mitigation Measures (Physical, Procedures and Plans)	Post-Control Risk		
			Consequence	Likelihood	Raw Risk		Consequence	Likelihood	Residual Risk
HAZARDOUS MATERIALS	Combustible material	**Fire** In the event of fire: -Generation of significant air pollutants -Release of contaminated firefighting water to surface water, ground water, soil	5	D	H	Strict control of ignition sources in storage and handling areas, hot-work permit system, buildings locked when unattended, site Emergency Response Procedure, employees trained in emergency response and evacuation procedures, fire services (e.g. fire alarms, hydrant, hose reel, extinguishers) throughout facility, no smoking policy, segregated Dangerous Goods Stores, storage and handling of flammable and combustible liquid in compliance with AS 1940-2017, oil/diesel leakages promptly attended to, spill kits, bunded storage areas	5	E	M
		Potential for hazardous materials to escape onto land or into waterways resulting in contamination				Hazardous materials stored inside lockable storage areas, fully sealed surfaces, bunded storage areas, spill kits, weekly inspection checklist			

Notes:
Pre-Control risk is the risk of the identified potential impacts without controls in place
Post-Control risk is the risk assessed once controls and procedures are in place.
Risk assessment is undertaken following the methodology outlined below (Reference: Standards Australia, HB-203 2006 Environmental Risk Management – Principles and process)
L = Low M = Medium H = High V = Very High

Activity: This is the process/activity undertaken at the site
Aspect: These are the aspects of the activity that may have impacts. For example: Generation of wastewater, Noise emission, Air/Odour emissions, Sediment laden runoff, Spills of chemical, Disturbance of acid sulfate soils, Vehicle movements, etc.
Potential Impacts on the Environment: These are the potential impacts of each aspect - these are assessed for risk separately.

Attachment A3: Environmental Forms

ALS LIMITED ENVIRONMENTAL MANAGEMENT PLAN

FORMS

ALS Limited

277-289 Woodpark Road, Smithfield NSW 2164

Issued and Approved by:	Date:

Document Reference: 211045-02_EMP_Att A3_Forms
Date of Issue: 26 May 2021

Prepared by:

Benbow ENVIRONMENTAL

Head Office: 25-27 Sherwood Street Northmead NSW 2152
AUSTRALIA
Tel: 61 2 9896 0399 Fax: 61 2 9896 0544
Email: admin@benbowenviro.com.au
Visit our website: www.benbowenviro.com.au

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NO:	**F1.1**	**DATE:**	**May 2021**
PREPARED BY:	Benbow Environmental	**ISSUE NO.:**	1
SUBJECT:	**1.1 ENVIRONMENTAL TRAINING REGISTER**		

Course Name:	Date:
Trainers Name:	Location:

Training Course Content:

Attendees:

Name	Position	Signature

Course Name:	Date:
Trainers Name:	Location:

Training Course Content:

Attendees:

Name	Position	Signature

NO:	**F1.2**	**DATE:**	**May 2021**
PREPARED BY:	Benbow Environmental	**ISSUE NO.:**	1
SUBJECT:	**1.2 INCIDENT REPORT FORM**		

INCIDENT REPORTING – BASIC FACTS	**FORM**

Date & Time of Incident: .....

Site Address: .....

Reference No. .....

Expected cause, duration & specific location of the event/incident:

The type, volume and concentration (if known) of every pollutant discharged or spilt as a result of the incident:

Immediate action taken in relation to the event:

The name, address and telephone number of any witnesses of the event:

Any other relevant matters:

I verify that all the information provided herein is a true and accurate of the events that have occurred.

Signed: .....

Name: .....

Date: .....

INCIDENT REPORTING			REGISTER
Date	**Reference No.***	**Nature & cause of the incident**	**Verification of corrective / preventative actions**
			I verify that all the nominated corrective and preventative actions have been implemented effectively. Signed:..... Name: ..... Date: .....
			I verify that all the nominated corrective and preventative actions have been implemented effectively. Signed:..... Name: ..... Date: .....
			I verify that all the nominated corrective and preventative actions have been implemented effectively. Signed:..... Name: ..... Date: .....
			I verify that all the nominated corrective and preventative actions have been implemented effectively. Signed: ..... Name: ..... Date: .....
			I verify that all the nominated corrective and preventative actions have been implemented effectively. Signed: ..... Name: ..... Date: .....
			I verify that all the nominated corrective and preventative actions have been implemented effectively. Signed: ..... Name: ..... Date: .....

* The reference number quoted would reference related incident reports with details of each incident.

NO:	**EP1.3**	**DATE:**	**May 2021**
PREPARED BY:	Benbow Environmental	**ISSUE NO.:**	1
SUBJECT:	**1.3 COMPLAINTS RESPONSE FORM**		

REF: …… REV: 1

LOG BOOK REFERENCE NO: ……

DATE: ……TIME: ……AM/PM

NAME OF PERSON WHO RECEIVED CALL: ……

NAME OF COMPLAINANT: ……TELEPHONE NO: ……

ADDRESS: ……

DETAILS OF COMPLAINT:

DATE OF OCCURANCE: ……TIME AM/PM: ……

TYPE OF INCIDENT:

NOISE	☐	STORMWATER	☐
AIR EMISSIONS	☐	ODOUR	☐
TRAFFIC/TRANSPORT	☐	FIRE	☐
EROSION/SEDIMENT	☐	WASTE	☐
OTHER	☐	DETAILS: ……	

PRECISE LOCATION OF INCIDENT: ……

PARTICULAR DETAILS RELATING TO THE INCIDENT: ……

……

……

COMPLAINTS RESPONSE FORM **PAGE 2 OF 2**

ACTION TAKEN:

COMPLAINANT TRANSFERRED TO:

MESSAGE TAKEN FOR: ……..

CORRECTIVE AND PREVENTATIVE ACTION:

INFORMATION BULLETIN SENT ☐

COMPLAINT INVESTIGATED BY: .....CPAR NO.....

RESULTS OF INVESTIGATION: .....

.....

.....

.....

ON COMPLETION OF CORRECTIVE AND PREVENTATIVE ACTION:

LETTER SENT TO COMPLAINANT YES NO N/A DATE: .....

WORK PRACTICE MODIFIED YES NO N/A DATE: .....

COMPLAINT RESPONSE COMPLETE: .....
PRINT NAME

SIGNATURE: .....

DATE: ..... TIME: .....AM/PM

COMPLAINTS REGISTER

Ref no.	Date	Complaint details	Action Taken	Sign

NO:	**EP1.4**	**DATE:**	**May 2021**
PREPARED BY:	Benbow Environmental	**ISSUE NO.:**	1
SUBJECT:	**1.4 CORRECTIVE & PREVENTATIVE ACTION FORM**		

REF: …… REV: 1

☐ CORRECTIVE ACTION ☐ PREVENTATIVE ACTION

Name of personnel requesting corrective/preventative action: Signature:

…… ……

Personnel responsible for action: Date:

…… ……

Outline of the 'Initiating Event' and necessary corrective and/or preventative actions (to be filled out by those requesting action):

……

……

……

……

Actions taken to fulfil the requirement of the corrective and/or preventative action:

……

……

……

……

Corrective and/or preventative action complete:

Signature: …… **Date:** ……

NO:	**F1.5**	**DATE:**	**May 2021**
PREPARED BY:	Benbow Environmental	**ISSUE NO.:**	1
SUBJECT:	**1.5 INDUCTION TRAINING FORM**		

INDUCTION TRAINING	FORM

This is to certify that _____ (name) has completed induction training at _____ (site name & address) and is competent in the following areas:

Training Completed:	**(Tick)**
• Awareness of the purpose and objectives of the site EMP.	☐
• Awareness of legal requirements and individual accountability under environmental legislation applicable to the site, including penalties for offences under environmental legislation.	☐
• Aspects of site operations that could potentially impact the environment.	☐
• How potential impacts are managed on site including monitoring, site inspections and any regular maintenance undertaken.	☐
• Understanding of the various roles and responsibilities, with relevance to procedures.	☐
• Mitigation measures and controls.	☐
• Incident response and reporting requirements.	☐
• How to communicate, respond and where to go in an emergency situation	☐

I verify that I understand the information provided herein as part of the induction training and agree to abide by the site's procedures.

Signed: .....

Name: .....

Date: .....

Confirmed by _____ (Name of person providing training)

Signed: .....

Date: .....

ALS Limited
ENVIRONMENTAL MANAGEMENT PLAN

ENVIRONMENTAL PROCEDURES MANUAL

277-289 Woodpark Road, Smithfield NSW 2164

Issued and Approved by:	Date:

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Prepared by:

Benbow ENVIRONMENTAL

Head Office: 25-27 Sherwood Street Northmead NSW 2152 AUSTRALIA
Tel: 61 2 9896 0399 Fax: 61 2 9896 0544

Email: admin@benbowenviro.com.au
Visit our website: www.benbowenviro.com.au

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PROCEDURE NAME:	**AIR QUALITY MANAGEMENT**	**DATE:**	**June 2021**
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1. AIR QUALITY MANAGEMENT

1.1 PURPOSE

The purpose of this procedure is to set out the process relating to management and monitoring of air emissions from site activities.

Potential air pollutants associated with the operation of a commercial laboratory include:

- Dust/particulate matter ($PM_{2.5}$, PM_{10} and TSP);
- Products of combustion (oxides of carbon, nitrogen and sulphur);
- Argon (Ar) and nitrogen (N_2) gases;
- Mercury (Hg), lead (Pb), and acid vapours;
- Volatile Organic Compounds (VOCs); and
- Odour.

1.2 RESPONSIBILITIES

- All staff and contractors of ALS Limited; and
- General Manager/Shift Supervisor.

1.3 REFERENCES

- Protection of the Environment Operations Act 1997;
- NSW EPA *Approved Methods for Modelling and Assessment of Air Pollutants in New South Wales* (2016); and
- NSW EPA *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales* (2007).

1.4 DEFINITIONS

Air Emissions
Any particles or odour discharged to the local air amenity.

Air impurity
Includes smoke, dust (including fly ash), cinders, solid particles of any kind, gases, fumes, mists, odours and radioactive substances.

Air pollution
Means the emission into the air of any air impurity.

1.5 PROCEDURE

- All laboratory operational activities undertaken within building.
- Work stations that involve chemical analysis that emit vapours/fumes or particulate matter are exhausted through fume cupboard hoods.
- Exhausted air is fed through wet air scrubbing systems (for vapour control) and HEPA filters (for particulate matter control).
- Wet air scrubbing systems and HEPA filters are cleaned and maintained monthly (at a minimum). Waste to be removed by licenced contractor.
- Filtered air is emitted through rooftop stacks.
- Minimal non-odorous materials generated or stored on site during normal operation.
- All trafficable and operational surfaces on site are fully sealed to prevent road dust generation and emissions.
- Working and operational areas are kept clean and tidy to ensure any accumulated residual waste is collected, stored and disposed of appropriately.
- Low on-site speed limits for all vehicles (<15 km/h)
- Vehicles are serviced and maintained according to manufacturer's specifications.
- On-site vehicles and plant are switched off when not in use.
- Employees must ensure no visible dust or particulate matter leaves the premises.
- Employees must ensure that no material, including sediment, is tracked from the premises.
- All operations and activities occurring at the premises must be carried out by employees in a manner that prevents and minimises the emission of air pollutants from the premises.

1.6 COMPLAINTS HANDLING

All complaints or enquiries should be handled in a courteous manner. A procedure for handling complaints is provided below:

- Record in Log Book and on a Complaint Response Form:
  - Name of Complainant;
  - Address;
  - Telephone Number; and
  - Details of Complaint: date, time of occurrence, precise location of event.

- Connect/refer caller to one of the following staff members who are authorised to discuss the complaint with the caller:
  - Director/s; and
  - Personnel with environmental responsibilities.

- Authorised staff member requests details of the complaint or information required by the caller and completes the Complaint Response Form and the Complaint Response Logbook Index (Attachment A3 of the Environmental Management Plan).

- Complaint is investigated and discussed at a toolbox meeting to determine whether it warrants being added to the incident register and whether a more detailed investigation is required.

- If further investigation is required, an incident number is allocated and recorded on the Complaint Response Logbook & Incident Register. If no investigation is warranted, the complaint can be closed out.

- Any response, investigations and actions taken to rectify the issue are recorded in the incident register and recorded with *Corrective Action Procedure.*

1.7 INSPECTION AND RECORDS

A Workplace Inspection Checklist has been prepared to assist staff in checking that all procedures and equipment used to control and mitigate potential pollution are functioning effectively.

Any issues or non-conformances noted during workplace inspections must be recorded. Documentation for any corrective and preventative actions (e.g. CAR forms) must also be maintained, as described in the *Corrective and Preventative Actions* section of the EMP. Any other relevant records must also be kept for inspection by regulatory authorities.

PROCEDURE NAME:	**NOISE MANAGEMENT**	**DATE:**	**June 2021**
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2. NOISE MANAGEMENT

2.1 PURPOSE

The purpose of this procedure is to set out the process relating to management and monitoring of noise from the site operations and includes:

- Any noise management controls and techniques to be implemented for minimising noise on a day to day basis; and
- Noise complaint procedure and details of any monitoring required.

2.2 NOISE SOURCES

Noise sources associated with the facility include:

- Vehicle movements;
- Mobile plant (e.g. forklifts);
- Fixed/stationary mechanical plant (e.g. air compressors);
- Laboratory fume cupboard exhausts; and
- External cool room condensers.

2.3 PROCEDURE

The following practices should be implemented to minimise noise impacts.

2.3.1 General Site Activities

- All laboratory operational activities undertaken within building.

- Locate noise generating equipment/plant within building.

- Regular inspections shall be conducted in accordance with the Workplace Inspection Procedure to identify areas of potential noise generation. Indicators may include:

  - Evidence of oil leaks or damage to equipment/vehicles;
  - Un-secured or damaged noise guards or equipment;
  - Noticeable, excessive or unusual sources of noise; and
  - General wear and tear of equipment.

- If problem areas of additional noise generation are identified, action should be taken to alleviate any additional noise as soon as practicable by site management.

- Noise shall be included in the awareness training and induction of staff and contractors.

2.3.2 Vehicle Movements

- External truck and forklift movements are to be limited to 7am-10pm Monday to Saturday, 8am-10pm on Sundays and public holidays.

- Liaise with drivers to ensure that they are aware of noise impacts on neighbouring receivers and that they adopt the recommended practices to minimise such problems.

- On-site vehicles to be maintained in accordance with a preventative maintenance program to ensure optimum performance and early detection of wearing or noisy components.

- Enforcing the following practices for on-site vehicle movements:

  - Low on-site speed limits (<15 km/h);
  - Minimise the use of truck exhaust brakes on site;
  - Minimising reversing distances and hence noise generated by reversing beepers;
  - No extended periods of on-site revving/idling.

The implementation of the above strategies should sufficiently minimise the potential for noise to cause annoyance at the nearest sensitive receptors.

2.3.3 Roof-top Mechanical Plant

- Ensure all noise generating equipment on roof-top mechanical plant is serviced regularly.

- Consult a suitably qualified acoustic consultant when changes are made to the roof-top mechanical plant equipment/structure.

2.4 COMPLAINTS

Any complaints received regarding noise pollution should be handled in accordance with the *Complaints Response Procedure* in the EMP. Any noise complaint would trigger the need for monitoring as described in the following section.

2.5 NOISE MONITORING

Noise monitoring is to be undertaken with Class 1 sound level meter/logger sets to comply with AS 1259 and was set on A-weighted, fast response. The microphone is to be positioned at 1.5 metres above ground level and fitted with a windsock. The instrument needs to be calibrated prior and subsequent to the measurement period to ensure the reliability and accuracy of the instrument sets. The instrument sets are also to be calibrated by a NATA accredited laboratory within two years of the measurement period.

Noise monitoring should be undertaken at the location of the complaint or best available location to adequately determine the noise at the location of the complaint.

The attended measurements are recommended to be undertaken with the following conditions:

- Where feasible when the background levels are predicted to be low;
- Wind speed <5 m/s; and
- No rainfall.

The measurements are recommended to be undertaken when the background levels are predicted to be low, with negligible wind and no rain during standard operational conditions.

Any exceedance to noise limits need further investigation is required to mitigate impacts.

Results of all noise monitoring undertaken need to be presented in a report and kept on record. Should a noise complaint be received, either through a regulatory body or directly by the facility, the Complaints Procedure of the EMP should be followed.

2.6 INSPECTION AND RECORDS

A Workplace Inspection Checklist has been prepared to assist staff in checking that all procedures and equipment used to control and mitigate potential pollution are functioning effectively.

Any issues or non-conformances noted during workplace inspections must be recorded. Documentation for any corrective and preventative actions (e.g. CAR forms) must also be maintained, as described in the *Corrective and Preventative Actions* section of the EMP. Any other relevant records must also be kept for inspection by regulatory authorities.

PROCEDURE NAME:	**STORM & SURFACE WATER MANAGEMENT**	**DATE:**	**June 2021**
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3. STORM & SURFACE WATER MANAGEMENT

3.1 PURPOSE

This procedure serves to ensure that storm and surface waters on site are not impacted or contaminated from site activities.

Surface and stormwater have the potential to become contaminated during refuelling activities, and loading and unloading, or improper management of chemicals or waste at the site.

Mitigation measures to be implemented include:

- Designated dangerous goods cabinets for storage of chemicals;
- All chemicals to be stored inside the building;
- Spill kits provided;
- Staff trained in spill response and emergency procedures; and
- Regular workplace inspection and high standard of housekeeping.

3.2 DEFINITIONS

The Environment
For the purpose of this procedure, the environment is defined to include air, soil, natural waterways, groundwater, surface water (including stormwater drainage system).

Stormwater
Rainwater runoff over hardstand or impermeable surfaces.

Sediment
Dust and particulate matter deposited in hardstand areas that during wind or rain may cause the release of these contaminants.

3.3 PROCEDURE

3.3.1 General

- Keep the premises clean and tidy at all times.

- No storage of materials externally.

- Stormwater inlet pits should be fitted with geotextile material filters to prevent sediments and debris entering the stormwater network.

- Entries to storage areas are bunded to minimise materials/sediments escaping.
- All hardstand areas shall be inspected and maintained to ensure the integrity of the hardstand surface be maintained, with any cracks repaired immediately.
- Regular cleaning/sweeping of hardstand areas shall be undertaken to prevent accumulation of sediment and debris.
- Surface water control equipment must be maintained in optimum working condition. This means broken piping or drain lines are repaired, drain pit filters and/or covers are unblocked and sediment build up in pits is periodically removed.
- No waste or items of any description shall be tipped down stormwater drains.
- Bucket/spill tray available to be used during refuelling operations to catch residual fuel; and
- If contaminated surface waters have exited the site or is strongly suspected to be contaminated but cannot be sampled, incident reporting should be undertaken and management shall notify all relevant authorities, and co-operate in the investigations clean-up process.

3.3.2 Stormwater Monitoring

This procedure is included should stormwater monitoring be required as a result of suspected contaminated stormwater entering the Council stormwater network. Stormwater monitoring is not anticipated as a DCC for the site.

Stormwater monitoring events must be undertaken by a suitably qualified person at the commencement of an independent rain event. It is recommended that water is monitored within on site stormwater pits *before* exiting the site into the Cumberland Council stormwater network.

Contaminants and their respective trigger values were obtained from the Australian and New Zealand Environment and Conservation Council (ANZECC) Water Quality Guidelines (2000). Trigger values were selected for “typical slightly–moderately disturbed systems” and “Lowland Rivers”, as they are representative of the nearest waterways to the site. The species level of protection of 95% was selected for this system and stormwater monitoring procedure.

Stormwater sample collection and analysis should include any potential contaminants that may be generated on site, including but not limited to, those listed in Table 3-1.

Table 3-1: Stormwater Monitoring List and Relevant Trigger Values

Analytes	ANZECC Trigger Value	Test Method /Reference	Analytical Limit
Metals			
Arsenic	24 (as III), 13 µg L^{-1} (as V)	ICP-MS	0.001 mg/L
Copper	1.4 µg L^{-1}	ICP-MS	0.001 mg/L
Chromium	1.0 µg L^{-1} (as Cr VI)	ICP-MS	0.001 mg/L
Zinc	8 µg L^{-1}	ICP-MS	0.005 mg/L
Lead	3.4 µg L^{-1}	ICP-MS	0.001 mg/L
Aluminium	55 µg L^{-1} (pH>6.5)	ICP-MS	0.01 mg/L
Nickel	11 µg L^{-1}	ICP-MS	0.001 mg/L
Cadmium	0.02 µg L^{-1}	ICP-MS	0.0001 mg/L
Mercury (Inorganic)	0.06 µg L^{-1}	ICP/MS	0.0001 mg/L
Nutrients			
Oxides of Nitrogen	40 µg L^{-1}	APHA 4500	0.002 mg/L
Filterable Reactive Phosphorus	20 µg L^{-1}	APHA 4500	0.01 mg/L
Total Ammonia	900 µg L^{-1} (at pH 8)	APHA 4500	0.01mg/L
Physical			
pH	6.5-8 (Lower-Upper Limit)	APHA 4500 or in situ	0.01 (pH units)
Electrical Conductivity	200-300 µScm^{-1}	APHA 2510 or in situ	1µS/cm
Suspended Solids	<50 mg/L[(2)]	APHA 2540	1 mg/L
Polycyclic Aromatic Hydrocarbons			
Naphthalene	16 µg L^{-1}	EP075B Sim	1 µg/L
BTEX			
Benzene	950 µg L^{-1}	EP080	1 µg/L
Toluene	ID	EP080	2 µg/L
Ethylbenzene	ID	EP080	2 µg/L
O-Xylene	350 µg L^{-1}	EP080	2 µg/L
Total Recoverable Hydrocarbons			
TRH (C6-C40)	ID	EP071,80	20-100 µg/L
Organochlorine Pesticides			
Chlordane	0.03 µg L^{-1}	EP068A	0.5 µg/L
Endosulfan	0.003 µg L^{-1}	EP068A	0.5 µg/L
Endrin	0.01 µg L^{-1}	EP068A	0.5 µg/L
Heptachlor	0.01 µg L^{-1}	EP068A	0.5 µg/L
Organophosphorus Pesticides			
Azinphos methyl	0.01 µg L^{-1}	EP068B	0.5 µg/L
Chlorpyrifos	0.01 µg L^{-1}	EP068B	0.5 µg/L
Diazinon	0.01 µg L^{-1}	EP068B	0.5 µg/L
Malathion	0.05 µg L^{-1}	EP068B	0.5 µg/L
Parathion	0.004 µg L^{-1}	EP068B	2 µg/L
Herbicides and Fungicides			
2,4-D	280 µg L^{-1}	EP202	10 µg/L

Table 3-1: Stormwater Monitoring List and Relevant Trigger Values

Analytes	ANZECC Trigger Value	Test Method /Reference	Analytical Limit
2,4,5-T	36 µg L^{-1}	EP202	10 µg/L

Note: "ID" = insufficient data in ANZECC

3.4 INSPECTION AND RECORDS

A Workplace Inspection Checklist has been prepared to assist staff in checking that all procedures and equipment used to control and mitigate potential pollution are functioning effectively.

Any issues or non-conformances noted during workplace inspections must be recorded. Documentation for any corrective and preventative actions (e.g. CAR forms) must also be maintained, as described in the *Corrective and Preventative Actions* section of the EMP. Any other relevant records must also be kept for inspection by regulatory authorities.

PROCEDURE NAME:	**STORAGE & HANDLING OF HAZARDOUS MATERIALS**	**DATE:**	**June 2021**
PREPARED BY:	Benbow Environmental	**ISSUE NO.:**	1

4. STORAGE & HANDLING OF HAZARDOUS MATERIALS

4.1 PURPOSE

This procedure aims to outline aspects of the management of hazardous chemicals and waste materials stored at the site in accordance with the relevant legislation and SafeWork Australia requirements. For information on specific chemicals, refer to the safety data sheet.

4.2 DEFINITIONS

Bund
An embankment of earth, or a wall of brick, stone, concrete or other approved material which may form part or all of the perimeter of a compound.

Dangerous Goods
Substances that are listed in The Australian Dangerous Goods (ADG) Code or that meet the classification criteria specified in that Code.

Hazardous Chemicals
A substance, mixture or article that satisfies the criteria for a hazard class in the GHS (including a classification referred to in Schedule 6), but does not include a substance, mixture or article that satisfied the criteria solely for the following hazard classes:

a) acute toxicity – oral, dermal and inhalation – category 5;
b) skin corrosion/irritation – category 3;
c) serious eye damage/eye irritation – category 2B;
d) aspiration hazard – category 2;
e) flammable gas – category 2;
f) acute hazard to the aquatic environment – category 1, 2 and 3;
g) chronic hazard to the aquatic environment – category 1, 2, 3, and 4; and
h) hazard to the ozone layer.

Flammable Liquids
Liquids that are classified as Class 3 flammable liquids in The Australian Dangerous Goods (ADG) Code and classified as "Flammable Liquids" under the Global Harmonised System of Classification and Labelling of Chemicals (GHS) or that meet the classification criteria specified in that Code for flammable liquids. Flammable substances ignite on contact with ignition sources.

Hazardous substance
A substance which is toxic, harmful, corrosive, irritating, sensitising, carcinogenic, mutagenic, teratogenic or radioactive.

Safety Data Sheet (SDS)
A document that provides information on the identification, health hazards, precautions for use and the safe handling of specific chemical product, which complies with ASCC:2011 (1994).

These data sheets are obtained from the supplier and provide essential information required to allow safe handling of hazardous substances at work. Employers must ensure that all employees have access to SDS and must encourage employees to read the SDS's for all hazardous substances, which they may encounter in their work.

All SDS's include the following information:

- Product name and classification by UN No., GHS category, hazard statement and signal word;
- Product identification including physical and chemical properties;
- Health hazard information detailing acute effects and first aid advice;
- Precautions for use;
- Safe handling information including storage and transport, spills and disposal and fire explosion hazards;
- Recommend on the use of PPE; and
- Miscellaneous information.

The information in a SDS is very important and all members of staff must be familiar with the location of the SDS's and their contents. For new chemicals on site, an SDS must be provided from manufacturers and read by the staff.

Globally Harmonised System of Classification and Labelling of Chemicals (GHS)
A new classification system for hazardous chemicals based on the GHS came into effect as of the 1 January 2012, and the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code) was terminated after the 31 December 2016. The requirements of both the ADG Code and GHS are addressed in this procedure.

Occupier
The person who has overall management or control of the workplace.

Packing Group (PG)
*One of three hazard groups into which dangerous goods (of Classes other than 1, 2, 6.2 & 7) are designated in the ADG Code, in decreasing order of hazard by the Roman numerals **"I"** (great danger), **"II"** (medium) and **"III"** (minor danger).*

Incompatible
In relation to substances or the containers in which such substances are kept, having the ability to react or combine with one another in a manner that increases the hazard of an individual substance, that could cause deterioration of any of those substances and increase the hazards presented by them, or that could increase the hazards in the event of fire.

NOHSC
National Occupational Health & Safety Commission (NOHSC) now known as Safe Work Australia – website: http://www.safeworkaustralia.gov.au.

PPE
Personal Protective Equipment.

4.3 HAZARDOUS CHEMICALS STORED ONSITE

The site stores numerous chemicals and materials on site for various chemical analysis and operational uses.

Current hazardous chemicals (dangerous goods) on site are displayed in Table 4-1. It is expected that these materials and their quantities will be revised upon consolidation of ALS Limited divisions on site. This table and section will require revision once the facility has been granted approved.

Controls are in place to ensure hazardous chemicals, hazardous wastes and dangerous goods are transported, handled, stored and disposed of appropriately.

Table 4-1: Dangerous Goods Stored on Site

UN	Product	Class	PG	QTY
Depot No 1 (Outside Trade Waste Pit)				
1951	Liquid Argon	2.2	II	X 1 Tank @ 3000 L volume
Depot No 2 (Gas bottle storage room)				
1002	Compressed Air	2.2	II	X 6 G size @ 9.9m^3 each
1066	Nitrogen Gas	2.2	II	X 2 Tank size @ 8.4m^3 each
1049	Hydrogen Gas	2.1	II	X 4 G size @ 8.8m^3 each
1013	Carbon Dioxide	2.2	II	X 2 G size @ 30Kg
1046	Helium Gas	2.2	II	X 3 G size @ 9.1m^3 each
Depot No 3 (DG Shipping container outside the Store)				
1992	Mixed Organic Solvent Waste	3	II	400 L
1208	n-Hexane	3	II	40 L
2024	Mixed Mercuric Waste	6.1	II	200 L
1090	Acetone	3	II	150 L
1219	Isopropanol	3	II	16 L
1593	Dichloromethane	6.1	III	150 L
1888	Chloroform	6.1	III	150 L
1230	Methanol	3	II	240 L
1294	Toluene	3	II	32 L
1173	Ethyl Acetate	3	II	56 L
1648	Acetonitrile	3	II	80 L
1145	Cyclohexane	3	II	16 L
1170	Ethanol	3	II	60 L
2398	Methyl t-Butyl Ether	3	II	32 L
Depot No 4 (DG cabinet Mezzanine)				
1789	Hydrochloric Acid	8	II	7.5 L
1830	Sulfuric Acid	8	II	7.5 L

Table 4-1: Dangerous Goods Stored on Site

UN	Product	Class	PG	QTY
2031	Nitric Acid	8 (5.1)	I	15 L
Depot No 5 (Pallet bunding Trade waste Pitt)				
1823	Sodium Hydroxide	8	II	360 L
Depot No 6 (Gas cylinders back corridor Inorganics)				
1072	Oxygen Gas	5.1	II	X 6 G size @ 10.5m^3 each
Depot No 7 (DG Large cabinet – Spare Lab)				
1090	Acetone	3	II	30 L
1219	Isopropanol	3	II	20 L
1230	Methanol	3	II	40 L
1294	Toluene	3	II	10 L
1134	Di-Chlorobenzene	3	II	4 L
1648	Acetonitrile	3	II	40 L
2924	Tetrabutil Ammonium Hydroxide	3	II	2L
1173	Ethyl Acetate	3	II	20 L
1173	Ethyl Acetate & Cyclohexane	3	II	4 L
1268	Unlead Petroleum	3	II	2 L
1120	Butan 1- ol	3	III	4 L
1282	Pyridine	3	II	4 L
1145	Cyclohexane GC Pesticide	3	II	20 L
1275	Propionaldehyde	3	II	1 Kg
1274	Propan-1-OL	3	II	1 L
1268	Petroleum Spirit	3	II	1 L
1648	Acetonitrile	3	II	8 L
Depot No 8 (Poison DG cabinet Inorganics Analyst Office)				
1208	Potassium Ferricyanide	3	II	1.5 KG
1638	Mercury Iodide Red	6.1	II	100 G
1493	Silver Nitrate	5.1	II	500 G
3077	Lead (II) Chromate	9	III	100 G
1493	Silver Nitrate	5.1	II	500 G
1587	Copper (I) Cyanide	6.1	II	100 G
CAS NO.				
13746-66-2	Potassium Hexacyanoferrate			1.5 KG
67-52-7	Barbituric Acid			1.5 KG
Depot No 9 (DG Cabinet Inorganics front entrance)				
1208	Hexane	3	II	20 L
1173	Ethyl Acetate	3	II	20 L
1090	Acetone	3	II	20 L
1294	Toluene	3	II	20 L
1648	Acetonitrile	3	II	20 L
1230	Methanol	3 (6.1)	II	24 L
1219	Isopropanol	3	II	20 L

Table 4-1: Dangerous Goods Stored on Site

UN	Product	Class	PG	QTY
1145	Cyclohexane	3	II	20 L
1170	Ethanol Absolute	3	II	2.5 L
1282	Pyridine	3	II	2.5 L
Depot No 10 (DG cabinet Mezzanine Flammables)				
1090	Acetone	3	II	80 L
1282	Pyridine	3	II	2.5 L
1173	Ethyl Acetate	3	II	8 L
1120	N-Butyl Alcohol	3	III	10 L
1230	Methanol	3	II	1 L
1604	Ethylenediamine	8 (3)	II	10 L
1090	Acetone	3	II	40 L
1145	Cyclohexane	3	II	10.5 L
1173	Ethyl Acetate	3	II	20 L
1230	Methanol	3	II	40 L
1648	Acetonitrile	3	II	40 L
1294	Toluene	3	II	12 L
1219	Isopropyl Alcohol	3	II	4 L
1208	n-Hexane	3	II	12 L
1120	Butan-1-OL	3	III	2.5 L
1274	Propan-1-OL	3	II	2.5 L
2672	Ammonia Solution 28-30%	8	III	2.5 L
2321	Trichlorobenzene	6.1	III	1 L
1992	Tetrabutylammonium Hydroxide	8	II	2 L
1736	Benzoyl Chloride	8	II	1 L
3271	Cyclopentyl Methyl Ether	3	II	1 L
1275	Propionaldehyde	3	II	1 KG
1158	Diisopropylamine	3	II	100 ML
Depot No 11 (DG cabinet Semi Volatiles Lab)				
1593	Dichloromethane	6.1	III	180 L
1888	Chloroform	6.1	III	5 L
1593	Methylene Chloride	6.1	III	104 L
Depot No 12 (DG small cabinet Spare Lab Flammables)				
2398	Methyl t-butyl Ether	3	II	24 L
Depot No 13 (Corrosives Purple – Spare Lab)				
1789	Hydrochloric Acid	8	II	22.5 L
2031	Nitric Acid	8 (5.1)	II	45 L
2672	Ammonia Solution	8	III	7.5 L
1830	Sulphuric Acid	8	II	17.5 L
Depot 14 HF (Spare lab)				
1790	Hydrofluoric Acid	8 (6.1)	II	1L
Depot 15 DG Standards Fridge (Semi Volatiles)				
	Carcinogen standards			10mL

Table 4-1: Dangerous Goods Stored on Site

UN	Product	Class	PG	QTY
3077	N-(2-Fluorenyl) Acetamide	9	III	10mL
2811	4-Dimethylaminoazobenzene	6.1	III	10mL
1708	o-toluidine	6.1	II	10mL
1650	2-Naphthylamine	6.1	II	10mL
1093	Acrylonitrile	3 (6.1)	I	10mL
CAS NO.	4-Aminodiphenyl			
92-67-1				
DG 16 DG Fridge Poison (Inorganics Standards Fridge)				
2025	Methyl Mercury Standard	6.1	I	10mL
2966	Mercapto Ethanol Standard	6.1	II	10mL
3082	Cyanide Standard Solution	9	III	500mL

The management of hazardous materials is regulated under the *Work Health and Safety Regulation 2017*. The regulation has two basic limits on storage quantities listed in Schedule 11; these are the Placarding quantity and the Manifest quantity. If the quantities of hazardous chemicals at the site exceed the Manifest quantity, notification to SafeWork NSW is required.

The facility would not require notification to SafeWork Australia, as chemical quantities do not exceed the manifest quantities. However, the basic requirements of having a Manifest in place, an active Emergency Plan in use, sign posting and placarding of hazardous material storage containers would be implemented to assist site management and Fire and Rescue NSW.

4.4 PROCEDURE

4.4.1 Storage and Handling

- Hazardous materials would be stored separately and within approved containers/bunds.
- Hazardous material containers/bunds would be inspected for cracks and integrity weekly.
- If spillage occurs, act ***immediately*** in accordance with the *Spill Procedure*. Ensure that all spilled materials and materials used for clean-up are disposed of safely.
- All personnel engaged in the handling of hazardous chemicals shall be aware of the hazards involved and be trained in the use of personal protective equipment, its care and maintenance, actions to be taken in various emergencies, the properties of hazards associated with, the substances handled.
- A register of safety data sheets on all chemicals used or stored on site is to be maintained.

- All installations in which flammable or combustible liquids are stored shall be implemented in accordance with AS 1940–2017, *The storage and handling of flammable and combustible liquids*.

- Smoking would be prohibited on site.

4.4.2 Disposal of Dangerous Goods/Hazardous Chemicals

- Dangerous goods and hazardous chemicals that require disposal may be classified as hazardous waste and must be disposed of in accordance with the Waste Management Procedure (Procedure No. 6).

- Appropriate staff shall be designated with the responsibility for ensuring the safe handling and transport of dangerous goods/hazardous chemicals to designated dangerous goods storage areas.

- Waste chemical containers are to be stored with hazardous waste in appropriately safe, enclosed and lockable storage area. Waste chemical containers must have labels indicating the contents and disposal of containers is to be undertaken by appropriately licensed contractors.

- Spills of hazardous waste should be handled in accordance with the *Spill Procedure* (Procedure No. 5) and any relevant safety data sheets.

4.4.3 Labelling

- Labelling must follow SafeWork Australia *Code of Practice Labelling of Workplace Hazardous Chemicals* (2019)

- Labels must be kept exhibited in such a position as to be clearly legible by any person approaching or at the dangerous goods area.

- All access points to chemical storage areas require clear signage.

- All lettering on the labels must be a minimum of 100 mm high in black on a white or silver background.

4.5 INSPECTION AND RECORDS

Any issues or non-conformances noted during workplace inspections must be recorded. Documentation for any corrective and preventative actions must also be maintained, as described in the *Corrective and Preventative Actions* section of the EMP. Any other relevant records must also be kept of professional periodic inspections.

PROCEDURE NAME:	**SPILL PROCEDURE**	**DATE:**	**June 2021**
PREPARED BY:	Benbow Environmental	**ISSUE NO.:**	1

5. SPILL PROCEDURE

5.1 PURPOSE

The purpose of this procedure is to ensure the containment of all spills on site to prevent the entry of spilled materials into stormwater systems (and public waterways), reducing the risk of environmental pollution and exposure to breaches and penalties under environmental pollution legislation.

5.2 DEFINITIONS

The Environment
For the purpose of this procedure, the environment is defined to include air, soil, natural waterways, groundwater and surface water (including stormwater drainage system).

Environmental Incident/Release
An environmental incident/release is defined as any spillage, release, upset, out of limits operation, procedural violation, which potentially:

- *Harms human health;*
- *May cause environmental harm; and*
- *May result in non-compliance with regulations, permits and/or intervention of environmental authorities or results in penalties or fines.*

Minor Spillage
A minor spillage is one that can be contained quickly and efficiently using the provisions of the Spill Kits located at various points around the site. It is typically less than 50 L. A minor spill would not be expected to reach the stormwater system. If the minor spill does reach the stormwater system, the same action as outlined for a major spill will need to be taken.

Major Spillage
A major spillage has the potential to leave the site and is characterised by the spillage of a quantity greater than 50 L. A spill of this size must be prevented from reaching the stormwater system and requires the sealing of stormwater drainage pits and the stormwater outlets, which is necessary to isolate the site from surrounding waterways.

Safety Data Sheet (SDS)
A document that provides information on the identification, health hazards, precautions for use and the safe handling of specific chemical product, which complies with ASCC:2011 (1994).

These data sheets are obtained from the supplier and provide essential information required to allow safe handling of hazardous substances at work. Employers must ensure that all employees have access to SDS and must encourage employees to read the SDS's for all hazardous substances, which they may encounter in their work.

All SDS's include the following information:

- Product name and classification by UN No., GHS category, hazard statement and signal word;
- Product identification including physical and chemical properties;
- Health hazard information detailing acute effects and first aid advice;
- Precautions for use;
- Safe handling information including storage and transport, spills and disposal and fire explosion hazards;
- Recommend on the use of PPE; and
- Miscellaneous information.

The information in an SDS is very important and all members of staff must be familiar with the location of the SDS's and their contents. For new chemicals on site, an SDS must be provided from manufacturers and read by the staff.

5.3 EQUIPMENT

To properly contain any spill it is important to know the name of the material (shipping and/or common name) and the type (solid, liquid, granulated), as well as the GHS classification or Dangerous Good class. It is also important to ensure the listed resources are present on site:

- SDS outlining any recommended method for containing the spill and preventing environmental damage.

- Spill control tools to contain and clean up spills, such as a Hazchem spill kit. Spill kits must include at least the following items: inert absorbent material, shovels, brooms, chemically resistant boots and gloves, disposal bags for contaminated waste and portable containment barriers. An additional spill kit specifically for flammable/combustible liquids must also be available on site.

- Spill control tools should be kept together at one location and communicated to all personnel. Signage should indicate the designated locations of the Hazchem spill kits/spill control tools.

5.4 PROCEDURES

If a spill occurs on the site the following procedure is to be followed.

5.4.1 For Minor Spillage

- Take action to stop or reduce the source of the spill, or divert the flow to safe containment, to the extent that personal safety will permit;
- For spills of solid materials, the spilled material should be carefully returned to the appropriate waste container;
- Contain the spillage to minimise spread of material;

- Consult SDS for recommended clean-up procedure and follow these instructions. Use spill control tools to aid in clean-up procedure;
- Dispose of material and all contaminated material (including soil contaminated from liquid spill) according to the Disposal Procedure outlined in the SDS or contact a licensed waste contractor for assistance;
- Inform the Site Manager on the details of the spill; and
- Record details of the spill.

5.4.2 For Major Spillage

- Take action to stop or reduce the source of the spill, or divert the flow to safe containment, to the extent that personal safety will permit;
- For spills of solid materials, the spilled material should be carefully returned to the appropriate waste container;
- Contain the spillage to minimise spread of material. Bunds should be monitored to ensure integrity and no escape of materials;
- Inform the Site Manager and/or Principal Contractor on the details of the spill;
- Consult SDS for recommended clean-up procedure;
- Under the direction of the Site Manager and/or with the assistance of the emergency response crews (if required), clean up the spill;
- Dispose of material and all contaminated material (including contaminated absorbent material and soil contaminated from liquid spill) according to the Disposal Procedure outlined in the SDS or contact a licensed waste contractor for assistance; and
- Record details of the spill.

5.4.3 Notifying Authorities

- Under section 148 of the Protection of the Environment Operations Act, 1997, there is a duty to report pollution incidents. Site Management is responsible for notifying the relevant authorities.
- Relevant authorities include one or more the following, depending on the type and extent of the spill:

1.	NSW Environment Protection Authority	131 555
2.	Cumberland Council	(02) 8757 9000
3.	The Ministry of Health	1300 066 055
4.	SafeWork NSW	13 10 50
5.	Fire and Rescue NSW	1300 729 579

- The following provides guidance on notifying pollution incidents:

  - Any pollution incident that causes or threatens material harm to the environment must be notified immediately.
  - A 'pollution incident' includes a leak, spill or escape of a substance, or circumstances in which this is likely to occur.
  - Material harm includes on-site harm, as well as harm to the environment beyond the premises where the pollution incident occurred.
  - Notification must be given immediately after the person becomes aware of the incident.

5.5 INSPECTION AND RECORDS

A Workplace Inspection Checklist has been prepared to assist staff in checking that all procedures and equipment used to control and mitigate potential pollution generated by site activities are functioning effectively.

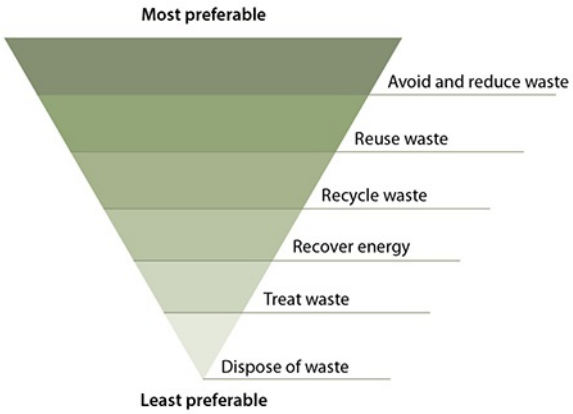
Any issues or non-conformances noted during workplace inspections must be recorded. Documentation for any corrective and preventative actions must also be maintained, as described in the *Corrective and Preventative Actions* section of the EMP. Any other relevant records must also be kept of professional periodic inspections.

PROCEDURE NAME:	**WASTE MANAGEMENT**	**DATE:**	**June 2021**
PREPARED BY:	Benbow Environmental	**ISSUE NO.:**	1

6. WASTE MANAGEMENT

6.1 PURPOSE

To guide waste management practices on site and encourage waste minimisation and resource recovery in line with the principles of Ecologically Sustainable Development (ESD). A Waste Management Plan (Ref: 211045-02_WMP) has been provided for the facility.



6.2 WASTE CLASSIFICATIONS

Special Waste
Special waste includes clinical and related wastes, asbestos waste and waste tyres.

Liquid Waste
Liquid waste is waste that has an angle repose <5degrees; waste that becomes free flowing at or below 60ºC and is not generally capable of being picked up by a spade or shovel.

Hazardous Waste
Hazardous waste is waste with a pH ≤2 or ≥12.5 and containers that have not been cleaned and contained dangerous goods within the meaning of the Australian Code for the Transport of Dangerous Goods by Road and Rail.

Restricted Solid Waste
This type of waste is determined by chemical tests.

General Solid Waste (Putrescible)
General solid waste (putrescible) is waste from litter bins collected by local councils, food waste and grit or screenings from sewage treatment systems that have been dewatered so that the grit of screenings do not contain free liquids.

General Solid Waste (Non-Putrescible)
General solid waste (non-putrescible) is paper or cardboard, glass, plastic, rubber, plasterboard, ceramic, bricks, concrete or metal and containers previously containing dangerous goods as defined under the Australian Code for the Transport of Dangerous Goods by Road and Rail, from which residues have been removed by washing or vacuuming.

6.3 WASTE TYPES

The main waste types generated on site include General Solid Waste (Non-putrescible) and Hazardous Waste. These waste types and their anticipated quantities are displayed in Table 6-1. All wastes are managed by licenced contractors approved for the handling, collection and disposal of each waste type.

Minor quantities of General Solid Waste (Putrescible) may be generated in office kitchens or staff break rooms.

Restricted Solid Waste and Special Waste are not expected on site.

Table 6-1: Generated Waste Types, Quantities and Management

Waste Stream	Total Maximum Quantity (L)	NSW EPA Waste Classification	Collection Frequency	Management
Halogenated solvent waste	**800**	Hazardous Waste	Fortnightly	Collected by Licenced Contractor
Halogenated solvent glass vials	**225**	Hazardous Waste	Fortnightly	Collected by Licenced Contractor
Mercury salts waste solution	**200**	Hazardous Waste	Every 6 weeks	Collected by Licenced Contractor
Quarantine/biohazardous waste (biosecurity and microbiology lab waste)	**720**	Hazardous Waste	Twice weekly	Collected by Licenced Contractor
Laboratory facilities effluent wastewater	Discharged as tradewaste as per Sydney Water TWA			
Acidic waste solution	**150**	Hazardous Waste	Monthly	Collected by Licenced Contractor
Aqueous waste solution (water and hydrocarbon mix)	**80**	Hazardous Waste	Monthly	Collected by Licenced Contractor

Table 6-1: Generated Waste Types, Quantities and Management

Waste Stream	Total Maximum Quantity (L)	NSW EPA Waste Classification	Collection Frequency	Management
Biohazardous waste (Microbiology lab food samples analysis)	**1,440**	Hazardous Waste	Thrice weekly	Collected by Licenced Contractor
Glass vials with solvents and standards	**30**	Hazardous Waste	Monthly	Collected by Licenced Contractor
Non-halogenated organic solvent waste	**270**	Hazardous Waste	Monthly	Collected by Licenced Contractor
Solvent waste	**1,000**	Hazardous Waste	Bi-monthly	Collected by Licenced Contractor
Waste Oil	**2,600 – 3,100**	Hazardous Waste	Bi-monthly	Collected by Licenced Contractor
Facility & Amenities Waste	**2,000**	General solid waste (Putrescible)	Monthly	Collected by Licenced Contractor
Facility Recyclables	**2,000**	General solid waste (non-putrescible)	Monthly	Collected by Licenced Contractor

6.4 WASTE HANDLING AND TRANSPORT

Waste handling and transfer within the facility is undertaken by staff. Non-hazardous waste is sorted into recyclables (such as paper/cardboard) and general solid waste. Each section within the facility is responsible for storage and transport of its waste with appropriate storage areas (such as for hazardous or liquid wastes).

Waste is stored and transferred through the facility using wheelie bins. Currently the waste collection area is in front of the facility, but a new designated area behind the facility is proposed.

Waste handling and transport off site is undertaken by appropriately licenced contractors per waste type.

6.5 WASTE STORAGE

Maximum general solid waste (including recycling waste) stored on site at any one time is below 8 tonnes (<8,000 L).

Maximum hazardous waste stored on site at any one time is below 5 tonnes (<5,000 L). As per Schedule 1 of the POEO Act, Clause 42 (Waste storage) states that waste oil does not contribute to total volumes of hazardous waste stored on site.

Waste storage areas and receptacles are to be labelled, enclosed and separated to prevent migration or mixing of materials from their designated areas. In the case of hazardous waste materials, these must be stored separately in a locked and secure storage area.

Waste storage locations per waste type are displayed in Table 6-2.

Table 6-2: Waste Storage Locations

Waste Stream	NSW EPA Waste Classification	Storage Location
Halogenated solvent waste	Hazardous Waste	Dangerous Goods sea container (external)
Halogenated solvent glass vials	Hazardous Waste	Dangerous Goods sea container (external)
Mercury salts waste solution	Hazardous Waste	Dangerous Goods sea container (external)
Quarantine/biohazardous waste (biosecurity and microbiology lab waste)	Hazardous Waste	Microbiology waste room (internal)
Acidic waste solution	Hazardous Waste	Warehouse (internal)
Aqueous waste solution (water and hydrocarbon mix)	Hazardous Waste	Warehouse (internal)
Biohazardous waste (Microbiology lab food samples analysis)	Hazardous Waste	Warehouse (internal)
Glass vials with solvents and standards	Hazardous Waste	Instrument lab (internal)
Non-halogenated organic solvent waste	Hazardous Waste	Instrument lab (internal)
Waste Oil	Hazardous Waste	Warehouse (internal)
Solvent waste	Hazardous Waste	Warehouse (internal)
Facility & Amenities Waste	General solid waste (Putrescible)	General solid waste skip bin (external)
Facility Recyclables	General solid waste (non-putrescible)	Recycling waste skip bin (external)

PROCEDURE NAME:	**WORKPLACE INSPECTION**	**DATE:**	**June 2021**
PREPARED BY:	Benbow Environmental	**ISSUE NO.:**	1

7. WORKPLACE INSPECTION

7.1 PURPOSE

The purpose of this procedure is to ensure an adequate level of environmental management at the site is maintained. The procedure can help determine whether action needs to be taken, in order to rectify any identified issues with the potential to cause environmental harm.

7.2 DEFINITIONS

Site Inspections
Inspections conducted using the Site Inspection Checklist provided to ensure a good environmental standard of the construction area is maintained.

Environmental Harm
Any direct or indirect alteration of the environment that has the effect of degrading the environment and, without limiting the generality of the above includes any act or omission that results in pollution. (Ref: POEO Act)

Due Diligence
The systematic identification of the environmental risks and liabilities associated with an organisation's sites and operations.

7.3 PROCEDURE

- An Inspection Checklist is provided overleaf to be completed and recorded on a weekly basis. This information is used to ensure an adequate level of environmental management at the site is maintained. It is also used to determine whether action needs to be taken to rectify issues that have arisen that may have the potential to cause environmental harm.

- If any action is required, this should be decided at the discretion of the Site Manager.

- Any issues or non-conformances noted during site inspections must be recorded. Documentation for any corrective and preventative actions (e.g. CAR forms) must also be maintained, as described in the *Corrective and Preventative Actions* section of the EMP. Any other relevant records must also be kept for inspection by regulatory authorities.

WEEKLY SITE INSPECTION CHECKLIST			EXAMPLE ONLY	
Inspected by:			Date & time:	
ITEM CHECKED	**YES**	**NO**	**ACTION REQUIRED**	**SIGN**
Is there any excessive noise from equipment or activities (or any noise complaints) from the site?				
Is there any excessive or unusual air emissions or odour (or any complaints regarding air emissions) from the site?				
Is waste being stored in correct designated bins/tanks/storage areas?				
Is waste overflowing from bins/storage areas?				
Is there evidence of any spills or leaks within the storage areas or any other area of the site?				
Is there evidence of waste materials in areas outside designated bins/tanks/storage areas?				
Are any safety signs out of place, obstructed or missing?				
Are stormwater pits working and free of blockages/debris?				
Does the hardstand or stormwater pit covers contain any unsealed cracks, tears or joints?				
Is any dust/sediment being tracked from the premises?				
Are the wet air scrubbing system and HEPA filters working correctly?				
Is all generated wastewater being appropriately treated and discharged as tradewaste?				
Are there any other areas that have not been maintained?				
OTHER				
Pollution Control Equipment				
Firefighting equipment				

NEXT INSPECTION DUE IN 7 DAYS. DATE:……/……/……

Housekeeping (circle): **Exceptional** **Good** **Average** **Poor** **Very Poor**

Additional Comments / Actions Required:

Inspected by:…… Signature:……..

Environmental Policy

Environmental Policy

ALS Limited is committed to sustainable activities and recognises the need to plan, manage and review those aspects of the business that may have an impact on the environment in which it operates.

To support this goal ALS aims to:

- Ensure all ALS businesses comply with the corporate HSE Foundation Standard;
- Monitor the performance of all of our activities against established environmental performance indicators to meet planned objectives and targets;
- Ensure emissions to the air, land and water are minimised and within legislative requirements;
- Regularly monitor and review procedures to minimise or eliminate the uncontrolled release of any pollutants;
- Ensure waste products are reused, recycled or disposed of in an environmentally responsible manner;
- Conserve resources through the efficient use of electricity, gas and water;
- Periodically review our environmental policies and procedures to maintain their relevance; and
- Encourage all employees to contribute to the continual improvement of their environmental management system that is aligned with the environmental aspects of the HSE Foundation Standard. This will result in the reduction of our environmental impact.

Authorised by:

Raj Naran
Managing Director

Date: 20 September, 2019.

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ENVIRONMENTAL POLICY

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- Periodically review our environmental policies and procedures to maintain their relevance; and
- Encourage all employees to contribute to the continual improvement of their environmental management system that is aligned with the environmental aspects of the HSE Foundation Standard. This will result in the reduction of our environmental impact.

Authorised by: Raj Naran, Managing Director

Date: 20 September, 2019.