



Hanson Blackwattle Bay Environmental Management Plan

Prepared by

Liberty Industrial Pty Ltd

For



Lot 5, DP 1064339, 1/1A Bridge Road Glebe NSW

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1 PURPOSE

The purpose of this Environmental Management Plan (EnvMP) is to provide the necessary framework to enable the project to be completed efficiently and with minimal environmental impact in accordance with the environmental objectives for this project and the Environment Protection Licence 759.

It is the policy of Liberty Industrial to achieve a high standard of care to minimise the impact on the environment, immediate work sites, and the local community.

To meet these objectives, a systematic and planned approach for the management of environmental issues will be implemented on this project.

This EnvMP is designed to provide the management framework with strategies to effectively manage all environmental risks during the demolition process.

This plan is to ensure that all activities which have a potential to impact on the environment have been identified, assessed and control measures put in place that are acceptable to Liberty Industrial, comply with Environmental legislation, and meet contract requirements.

This EnvMP has been written utilising Liberty Industrial Management System, Environmental Policy, and recognises the responsibilities to meet the relevant statutory specifications, standards.

2 SCOPE

The management plan applies to all the undertakings concerned with the Hanson Blackwattle Bay Decommissioning works (Concrete Batching Plant).

3 REFERENCES

Liberty Industrial Management System;

Protection of the Environment Operations (Clean Air) Regulation 2010;

Protection of the Environment Operations (Waste) Regulation 2014;

Protection of the Environment Operations Act 1997;

Protection of the Environment Operations (Noise-Control) Regulation 2017;

Protection of the Environment Operations (General) Regulation 2009;

Dangerous Goods (Road and Rail Transport) Regulation -2014;

Protection of the Environment Administration Act -1991;

Work Health and Safety Act 2011;

Work Health and Safety Regulation 2011;

ISO 14004 - 2004-11-15: Environmental management systems - General guidelines on principles, systems and support techniques;

AS/NZS ISO 14001:2015: Environmental management systems - Requirements with guidance for use;

AS/NZS ISO 19011:2003 Australian/New Zealand Standard Guidelines for quality and/or environmental management systems auditing;

Environmental Protection Authority Publication Environmental Guidelines for Major Construction Sites (1996);

AS 1885.1 – 1990: Workplace injury and disease recording standard;

AS/NZS 4801 - 2015: Occupational Health and Safety Management Systems - Specification with Guidance for use;

How to Safely Remove Asbestos Code of Practice;

AS/NZ 2601 – The Demolition of Structures;

AS/NZS ISO 9001:1994: Quality systems - Model for quality assurance in production, installation and servicing;

AS/NZS 4581 - 1999: Management System Integration – Guidance to Business, Government and Community Organisations;

AS 1940-2004 The storage and handling of flammable and combustible liquids

AS/NZS 4804 - 2001: Occupational Health and Safety Management Systems - General guidelines on principles, systems and supporting techniques;

National Code of Practice for Excavation Work;

Asbestos Blueprint for NSW;

Fire Brigades Act 1989;

Local Government Act 1993;

Environment Protection Licence (EPL) 759;

Australian Standard 1940.2014;

AS2436-2010, Guide to noise and vibration control on construction, demolition and maintenance sites; and

Technical Basis for Guidelines to Minimise Annoyance due to Blasting Overpressure and Ground Vibration, (Australian and New Zealand Environment Council, 1990).

NSW EPA Managing Urban Stormwater-Soils-Construction Vol-1 / Vol-2 (Blue Book)

The Liberty Industrial Management System is an Integrated Management System. This means that the system is designed to meet the requirements of Workplace Health and Safety, Environmental Management, and Quality.

4 POLICY PLANNING AND COMMITMENT

Liberty Industrial's aim is to achieve a high standard of care and minimise our impact on the natural environment in all activities in which we are engaged. This depends on the commitment of all worker(s) within Liberty Industrial for this project including sub-contractors.

4.1 LIBERTY INDUSTRIAL'S ENVIRONMENTAL POLICY

Liberty Industrial will:

- Conduct its operations in compliance with all relevant environmental regulations, licences and legislation as a minimum condition;
- Identify, monitor and manage environmental risks arising from its undertakings;
- Seek continuous improvement in environmental performance, operational processes, waste management and use of resources by:
- Monitor and improve our demolition methods to minimise environmental impact;
- Analyse and continuously improve recycling rates;
- Provide adequate training and awareness for all workers and sub-contractors on environmental issues;
- Communicate and consult regularly with our workers about our policy and individuals' responsibilities;
- Communicate with our Clients, suppliers, contractors and sub-contractors, community and external agencies about our environmental performance;
- Establish and review environmental objectives and targets;
- Develop, implement and maintain a Management System based on the elements of ISO 14001:1996

4.2 PLANNING

A preliminary list of project specific environmental issues are identified in this document, probability stated and management strategies to minimize possibility, detailed.

The Demolition Work Plan is the master management plan for the project. This EnvMP should be read in conjunction with the following Liberty Industrial documents:

- Work Health & Safety Management Plan
- Quality Management Plan
- Traffic Management Plan
- Industrial Relation Plan
- Emergency Management Plan
- Waste Management Plan

4.3 COMMITMENT

Liberty Industrial's commitment to the environmental aspects of the project is:

- To conduct the works in accordance with the expectations of Hanson Construction Materials Pty Ltd and in adherence to the Act and Regulations and our own plan;
- To monitor potential environmental issues on a daily basis, as part of our hazard and risk management procedure and Demolition Risk Assessment Workshop (DRAW);
- To ensure all our worker(s) are aware of our standards and adhere to our requirements; and
- To achieve a zero environmental incident target;

Ref: POL-007 Environmental Policy

PRO-015 Hazard and Risk Management

4.4 COMMUNICATION

Liberty Industrial commits to reporting through our Project Manager, communicating and reporting all environmental concerns categorized as high risk as per the risk assessment in this EnvMP. All communication and complaints will be undertaken as per the Stakeholder Communication Plan and reporting requirements to Hanson Construction Materials Pty Ltd, Council or regulators. Communication is undertaken in accordance with the following forms and procedures:

Ref: PRO – 012 Communication, Consultation and Reporting

PRO – 066 Pre-Start and Toolbox Meetings

Stakeholder Communication Plan

Emergency Management Plan

4.5 DOCUMENT AND RECORD CONTROL

Documentation and record keeping is regarded as critical to the function of the project. All records are kept in accordance with our Business Continuity Plan. Records are kept on site and are accessible to Hanson Construction Materials Pty Ltd upon request. All records are kept in accordance with relevant legislation and legal requirements. The following list of forms and procedures should be read in conjunction with this clause.

Ref: PRO – 004 Control of Records

4.6 EMERGENCY PREPAREDNESS

Emergency Management is undertaken in accordance with the site-specific Emergency Management Plan.

5 PERSONNEL RESPONSIBILITIES AND TRAINING

5.1 RESPONSIBILITIES

At various levels within Liberty Industrial, key positions hold important responsibilities for general environmental undertakings:

Project Director

- *Establish overall direction;*

Senior Managers

- *Develop environmental policy;*
- *Develop environmental objectives, targets and programmes;*
- *Review the operation of the environmental management system;*

All Managers

- *Monitor overall environmental performance;*
- *Management system performance;*
- *Assure compliance with applicable legal requirements and other requirements to which the Organization subscribes;*
- *Promote continual improvement;*

Project Manager

- *Total management of all operations, workers and subcontractors;*
- *Ensure compliance with all environmental requirements outlined in the EnvMP;*
- *Liaison with GPM Co. in relation to environmental matters;*
- *Ensuring that all environmental protection equipment is provided and maintained;*
- *Review environmental reports and inspections and initiate actions to rectify;*

Site HSEQ Advisor

- *Conduct baseline environmental investigations;*
- *Develop an Environmental Management Plan (EMP);*
- *Provide on-site advice in relation to the management of environmental issues;*
- *Conduct environmental incident investigations;*
- *Prepare environmental monitoring report at the completion of the project;*

All workers

- Conform to environmental management system requirements (Including Contractors);

All worker(s) on the project have a responsibility for ensuring the environment isn't compromised and to manage and report any environmental issues.

Refer to Demolition Work Plan for Project organisational chart, nominated personnel for defined roles, contact details and hierarchy of management plans.

Ref: FRM-031 Incident Report

IPM Labour Resources

5.2 TRAINING

Liberty Industrial will ensure that all worker(s) on the project will have the necessary knowledge, awareness and skills to fulfil their environmental responsibilities. This will be done through Liberty Industrial inductions prior to commencement of the project. Any updated Environmental information and issues will be presented and discussed at the daily team pre-start consultation meeting.

Ref: Training Matrix

FRM-037 Daily Team Consultation Meeting

6 PROTECTION OF THE ENVIRONMENT

6.1 DEFINITIONS

- ALARP – Mitigate risk to “As Low As Reasonably Practical”
- 'Environment' means all components of the earth, including:
 - Land, air and water;
 - Any layer of the atmosphere;
 - Flora and fauna;
 - Any organic or inorganic matter
 - And any living organism including humans;
 - Human made or modified structures and areas;
 - The aesthetic characteristics of the components of the earth, including appearance, sound, odour, taste and texture; and
 - Ecosystems with any combination of the above.
- 'Environmental Aspect' means the interaction, relationship or impact of an operation or activity with the Environment including, for example:

- Impacts of operations or activities on items of heritage or endangered species; and operations or activities causing Pollution or Contamination.
 - 'Environmental Law' means any statute or common law:
- Relating to the storage, handling or transportation of waste, dangerous goods or hazardous material relating to Workplace health and safety; or which has as one of its purposes or effects the protection of the Environment.
 - 'Environmental Notice' means any direction, order, demand, license or other requirement from a Government Agency to take action or refrain from taking any action in respect of the Site or the Works in connection with any Environmental Law; and
 - 'Site' means a project site or work area where Liberty Industrial is undertaking activities on behalf of Hanson Construction Materials Pty Ltd.

6.2 ENVIRONMENTAL OBLIGATIONS

Liberty Industrial will:

- Comply with all Environmental Laws including authorisations, license and approvals required by any government agency for the lawful use of the site to carrying out of contracted work;
- Comply with the Environment Protection Licence 759
- Not contaminate or cause any pollution on or from the site due to the undertaking;
- Not use, keep or handle on the site any dangerous goods or hazardous material except as may be required to carry out contracted work;
- Not generate or dispose of any hazardous waste on the site except as may be required to carry out contracted work;
- Operate in a proper and efficient manner and maintain in good working order, all plant used in connection with the carrying out the contracted work;
- Install and maintain pollution and sediment control equipment required by an environmental law to be installed and operated in connection the site undertaking;

Provide to Hanson Construction Materials Pty Ltd representative on demand any information held or controlled by Liberty Industrial required by Hanson Construction Materials Pty Ltd. relating to any:

- Contamination; or
- Environmental aspect, affecting the site at any time;
- Allow Hanson Construction Materials Pty Ltd and its workers, agents and consultants access to the site to carry out environmental audits, assessments and investigations of the site;

- Promptly comply with any direction from Hanson Construction Materials Pty Ltd representative to implement any recommendation of an environmental audit, assessment, investigation or report in respect of the site and/or undertaking. (whether or not such recommendation is required in order to comply with an environmental law); and
- Monitoring.

Promptly notify Hanson Construction Materials Pty Ltd in the event that:

- It becomes aware, or as soon as a complaint is made, of a breach or alleged breach of an environmental law in respect of the site and/or any activity carried out on the site;
- An environmental notice is served on the site;
- The site becomes contaminated in any way;
- Any pollution is emitted or discharged on or from the site;
- If Liberty Industrial is in breach of any obligations under the contract it will:
- Remediate any contamination of the site if caused by the undertaking;
- Clean up, manage or abate any pollution occurring on and/or from the site;
- Remedy any breach of an environmental law that occurs on or affects the site as soon as it occurs (including by restoring the site to a state as close as practicable to the state it was in prior to that alleged breach);
- Comply with every environmental notice relating to the site or issued in consequence of contracted work;
- Remedy any alleged breach of this document;

Measures proposed to reduce adverse impact of undertakings on the environment are:

- Ensure all services are connected in the correct manner to site, toilets and storage compounds and that rubbish disposal bins are available;
- Vehicle access is to be restricted;
- Enclosure or delineation of the site for safety or environmental control;
- Protection of existing vegetation;
- Dust control using water carts or existing infrastructure;
- Control of water discharges from within the site including into the canal using sediment control plan;
- Control erosion on the site using sediment control plan;

7 PROJECT CONSIDERATIONS

7.1 RISK ASSESSMENT

7.1.1 Risk Assessment Matrix

The following risk assessment matrix has been used to determine the risk of each individual environmental aspect relevant to the demolition of the Hanson's Blackwattle Bay Concrete Batching Plant Site. The level of risk determined from the matrix identifies the level of control measures required for that environmental aspect in conjunction with the Preliminary Environmental Assessment.

Likelihood	Consequence				
	1 - Low	2 - Minor	3 - Moderate	4 - Major	5 - Critical
A - Almost certain	Moderate (11)	High (16)	High (20)	Extreme (23)	Extreme (25)
B - Likely	Moderate (7)	Moderate (12)	High (17)	High (21)	Extreme (24)
C - Possible	Low (4)	Moderate (8)	Moderate (13)	High (18)	High (22)
D - Unlikely	Low (2)	Low (5)	Moderate (9)	Moderate (14)	High (19)
E - Rare	Low (1)	Low (3)	Moderate (6)	Moderate (10)	Moderate (15)

TOLERABLE	ALARP	ALARP	INTOLERABLE
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7.1.2 Risk Matrix Explanation

Probability			Consequences		
A	Almost Certain	Expected to occur, quite common.	25	Critical	<ul style="list-style-type: none"> ▪ Major environmental harm. E.g. critical pollution incident causing significant damage or potential to health or the environment. ▪ Fines and prosecution likely.
B	Likely	Will probably occur, has happened.	21	Major	<ul style="list-style-type: none"> ▪ Long term or serious environmental damage. ▪ Numerous complaints received. ▪ Potential for prosecution. ▪ Loss of reputation

C	Possible	Might occur at some time.	13	Moderate	<ul style="list-style-type: none"> ▪ Moderate environmental impact. ▪ Will cause complaints. ▪ Possible fine.
D	Unlikely	Could occur at some time although unlikely.	5	Minor	<ul style="list-style-type: none"> ▪ Minimal environmental harm. ▪ Potential for complaints. ▪ Fine unlikely.
E	Rare	Might occur at some time in exceptional circumstances.	1	Low	<ul style="list-style-type: none"> ▪ Little or no environmental harm. ▪ Little potential for fines or complaints.

7.2 PRELIMINARY ENVIRONMENTAL ASSESSMENT

The table below is intended only to be used as an initial assessment of potential environmental hazards.

A comprehensive risk assessment activity will be conducted on site as part of the DRAW and will address all Environmental risks as identified in the Statement of Environmental Effects (SEE)

Aspect: Liberty Industrial activity, product or service that can interact with the environment.

Impact: any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organization’s environmental aspects.

Environmental Value: Air, Land, Water, Waste, Natural Resources, Community, Legal and other (licence)

Risk Level: risk calculated from risk matrix.

Controls: any action or process implemented to reduce the risk. The control could be instigated Liberty Industrial or a contractor.

Responsible Person: Personnel responsible for implementing the control and managing the risk.

Aspect	Impact	Environmental Value	Risk Level	Controls	Responsible Person
Asbestos contamination	Environmental and safety hazard to worker(s) and community	Community	High	Operations must occur in accordance with the EnvMP and Asbestos Removal Control Plan and Demolition Management Plan	As per Asbestos Removal Control Plan and Demolition Management Plan
Dust / Water Suppression Run-off	Adverse impact on community from dust and/or water contamination due to run off.	Land, Community, Waterways	Medium	As per EnvMP. LI also incorporates a dust management plan (provided upon award of contract or upon request)	As per Environmental Management Plan
Weed seeds being carried onto site by vehicles and equipment	Contamination and environmental damage to worksite and surrounds	Land	Low	Check machinery and ensure vehicle checks are maintained. Also, personnel to ensure awareness	All

Management of waste material.	Potential contamination of land and water due to inappropriate handling and disposal of waste materials.	Land	Low	Ensure Waste management Plant and EnvMP are implemented and understood by all staff	Set up and maintenance personnel
Light vehicle movements (on/off site)	Environmental issues such as dust, hydrocarbon leaks / spills	Land	Low	Regular maintenance checks (Completion of pre-start checklist)	Plant Operator
Pre-start check on equipment	Fuels and oils - environmental hazards	Land, Water	Low	Regular maintenance checks (Completion of pre-start checklist)	Plant Operator
Noise pollution exceeding environmental limitation	Injury to community and personnel on site	Community	Medium	Operations should take place in accordance this Plan, Procedure 38, and Noise Monitoring Report 'Guide to noise management'. Work must only take place in nominal working hours.	As per Environmental Management Plan
Stormwater run-off	Potential contamination of land and water due to inappropriate handling of run-off stormwater	Water, Community	Medium	Place sediment controls as per the Sediment control plan. Education of all personnel on the clean and dirty water systems currently on-site. Sediment control on stormwater grates as required.	As per Environmental Management Plan

				Control of stormwater on-site and comply with the Environmental Protection Licence 759.	
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7.3 NOISE MANAGEMENT

7.3.1 Objective

The objective of this noise management plan is to minimise noise emissions from the project work and assist in maintaining a satisfactory work environment.

Liberty Industrial will undertake noise monitoring quarterly to ensure compliance with the DA consent and to manage noise to prevent hearing loss to workers.

7.3.2 Noise Criteria-Working On-Site

Liberty Industrial adheres to the Managing Noise and Preventing Hearing Loss Code of Practice, in order to keep noise to a minimum for worker(s) and other parties who would be affected by the works.

Liberty Industrial will only undertake tasks deemed as high noise emission activity's between 9:00am to 12:00pm and 14:00pm to 17:00pm Monday to Friday and 9:00am to 12:00pm on Saturdays.

Background noise levels are determined using Australian Standard 2107-1987 and shall be adopted for undertaking should the need arise.

7.3.3 Potential Problem Areas

The following processes have the potential to impact on the amenity of the adjacent spaces:

- Operation of percussion plant;
- For all blasting activities local residents will be notified prior to the event. Scrap load outs will be managed to comply the DA and any specific variations that City of Sydney Council may approve from time to time.

7.3.4 Noise Control Methods

The determination of appropriate noise control measures will be dependent on the particular activities and construction appliances. Noise monitoring will be undertaken by Hanson periodically as per the DA to determine the effectiveness of measures which have been implemented. The results of monitoring can be used to devise further control measures.

The following sections provide an outline of available control methods that will be used if required.

7.3.5 Acoustic Barrier

Barriers or screens can be an effective means of reducing noise. Barriers can be located either at the source or receiver. To provide shielding of the work site if required a suitable barrier may be used.

7.3.6 Silencing Devices

Where process or appliances are noisy, the use of silencing devices may be used. These may take the form of engine shrouding, or special industrial silencers fitted to exhausts, as recommended by manufacturers.

7.3.7 Material Handling

The installation of rubber matting over material handling areas can reduce the sound of impacts due to material being dropped by up to 20dB(A).

7.3.8 Treatment of Specific plant

All plant brought to the site will be maintained to the manufacturer's specification. Any plant not conforming to Australian Standards for noise emission will be stood down immediately for rectification or will be removed from the site.

In certain cases, it may be possible to specially treat a piece of plant to dramatically reduce the sound levels emitted.

7.3.9 Establishment of Site Practices

Administrative procedures can be put in place to minimise the amount of noise generated on site. All potential noisy work shall be arranged in consultation with Hanson Construction Materials Pty Ltd and the Local Council and may only occur at agreed times.

7.3.10 Establishment of Direct Communication with affected Parties

In order for the noise management strategy to work effectively, continual communication is required between all parties. This establishes a dynamic response process, which allows for the adjustment of control methods and criteria for the benefit of all parties.

The affected parties directly adjacent to the work areas should be contacted on a regular basis and kept informed of the progress on site and the measures being taken to minimise noise and vibration. Where loud activities and generation of high noise levels are unavoidable, early notification should be given to a representative of the adjacent areas. If high noise levels are detected during monitoring work will be stopped and noise control methods will be re-assessed.

Consultation in all areas of noise management will be undertaken with all affected parties.

7.4 VIBRATION MANAGEMENT

Consultant Structural Engineers will assess the site requirements and identify vibration limits for the cable tunnel and adjacent third-party assets.

Employment of Real Time Svan958A (4ch.) Sound & Vibration Analyser's around site will ensure vibration limits are adhered to and no damage will occur to plant owned and operated by adjacent third-party stakeholders.

The following vibration management controls will be undertaken:

- Vibration limits will be managed by a traffic light process to be developed;
- Green- within limits
- Yellow- within limits but review work procedures
- Red- outside of limits; cease work and complete review of work practices and methods
- Rock breaking monitoring will be undertaken by Hanson in accordance with the DA for each event and compared to predictions.
- Crushing monitoring will be done by Hanson in accordance with the DA with protocols set out in the Demolition Management Plan; which is reviewed and approved by SafeWork NSW.

7.5 ODOUR CONTROL

Liberty Industrial does not anticipate that there should be any odour issues, however, should odour be detectable at the site boundary, and then appropriate actions will be taken to reduce the odour. If required, the odour intensity will be measured using the Nasal Ranger Field Olfactometer.

Actions to reduce odour levels may include: increasing the amount of covering of excavations /stockpiles; mist sprays; odour suppressants; or maintenance of equipment.

7.6 AIR QUALITY MANAGEMENT -

Liberty Industrial will at all times endeavour to minimise dust emissions and continually monitor the effectiveness of the dust mitigation strategies. Dust emissions will ordinarily be generated by the following activities:

- loading and unloading dump trucks;
- driving around site;
- processing scrap;
- during induced collapse demolition methodologies;
- Structural demolition through the use of rock breakers and rock shears;

7.6.1 Air Quality Goals

The Project specific air quality goal is to comply with the EPL; minimise generation of visible dust, and prevent visible dust leaving the property boundary.

7.6.2 Air Quality Monitoring Protocol

Air quality will be primarily monitored by visual means by all personnel on-site. Any visible dust being generated, or planned activities that have the potential to generate visible dust that may leave the property, will be managed in accordance with the measures below.

7.6.3 Air Quality Management Measures

The mitigation strategies include:

- To mitigate dust the use of water where practicable will be used for;
- Loading out, transporting and dumping scrap onto stockpile;
- Any potential activities that may generate dust; and
- Traffic roads and dumping area will be watered down to prevent dust generation.
- Speed limits will be adhered to on-site;
- Using a water truck and or pumps and sprays;
- Wet down structures and surrounding areas as much as is practicable for demolition activities that may generate dust;
- All trucks entering or leaving site with loads will have their loads covered based on assessed risk of dust generation;
- Trucks will be cleaned before leaving site if there is a possibility to track dirt on public roads; and
- All equipment will be maintained as per OEM specifications.
- Cease work dust causing activities should dust levels become high, to allow for dust disbursement.

Responsibility and timing of the air quality monitoring and mitigation measures that shall be implemented during demolition are in the Table below:

Action	Responsibility	Timing
Exposed areas that have the potential to generate visible dust are to be sprayed with water during dry conditions to minimise dust	Demolition Crews	When required

Action	Responsibility	Timing
Ensure all demolition related stockpiles are regularly watered to prevent dust emissions.	Demolition Crews	Weekly
Confine traffic to defined roads and tracks where possible	Project Manager	Daily
Demolition vehicles onsite are to observe speed limits.	All Worker(s)	Weekly
Watering (when required) shall occur during dry and/or windy conditions. Unpaved haul roads shall be watered by a water tanker.	Demolition Crews	Fortnightly
Dust generating activities shall be limited during periods of high velocity wind, as determined by the Project Manager.	Project Manager	When required
Monitor dust generation resulting from demolition activities. Report excessive dust generation to supervisor.	All staff	When required
All dust complaints from demolition activities shall be recorded and reported to the Project Manager immediately after receipt of the complaint. All actions taken are to be recorded.	All staff	When required
Dust and particulate run-off monitoring will be undertaken to investigate any complaint of environmental nuisance caused by demolition dust and/or particulate runoff matter. Monitoring shall be carried out at a place(s) relevant to the potentially affected dust sensitive place, possible contaminated runoff points and at upwind control sites and shall include site monitoring of dust deposition for a complaint alleging dust nuisance and sediment run off in to waterways. Dust and contaminated run-off monitoring shall be conducted in accordance with the Environment Protection Policy (Air Quality).	Third party to be confirmed	When required
All trucks, plant and temporary equipment used on site shall be regularly serviced, operated efficiently and visually monitored for excessive exhaust.	Project Manager	When required
Visual monitoring shall be conducted and maintenance records of all trucks, plant and machinery are to be kept.	Demolition Crews / Project Manager	Daily
Truck queuing, unnecessary idling of trucks and unnecessary trips shall be avoided through proper planning, toolbox sessions and awareness training.	Project Manager	When required
No vegetation is to be cleared without approval from the Project Manager. The clearing of vegetation is to be avoided where possible. No vegetation shall be cleared outside the approved footprint/alignment.	Project Manager	At all times

7.6.4 Complaint Management

All dust complaints will be documented in the weekly report to Hanson Construction Materials Pty Ltd. If dust monitoring is required to resolve a complaint, it will be completed within the EPA guidelines for Air Quality Monitoring.

7.7 FIRE PRECAUTIONS

Liberty Industrial shall prevent, where possible, the degradation of air quality by fires created by hot work operations. Burning of waste material is strictly forbidden.

Liberty Industrial shall provide, operate and maintain adequate firefighting equipment for the protection of the worker(s) and its plant (Fire Extinguishers and Water Truck).

All necessary measures to prevent fire during the undertakings that has the potential to damage or cause destruction by fire of buildings, vegetation and surrounding areas will be taken.

Liberty Industrial shall comply with the requirements of the Fire Brigades Act 1989 and Regulations and shall ensure that all persons on the site observe these requirements.

Liberty Industrial shall take notice of, and implement appropriate strategies for, any announcements by Fire Authorities, particularly the notification of days of Total Fire Ban. Should the need arise and application for a permit will be lodged with the NSW Fire Brigades to operate during these fire bans.

Fire precautions that may be used include:

- Hot Work Permit System;
- Designated Hot Work area in the Work Shop area;
- Assessment of ignition sources will be assessed and controlled in the Job Hazard Analysis (JHA);
- Fire Extinguishers will be available on-site;
- Weather conditions, Fire Danger Ratings and Total Fire Bands will be considered prior to works; and
- Water truck with cannon or site water supplies will be available to wet areas prior to work.

7.8 SOIL AND WATER MANAGEMENT

7.8.1 Control of Surface Water Run-off

Liberty Industrial shall design, supply, install, maintain and operate drainage systems and sediment control to surface run-off to and from the site. A Stormwater and Erosion Management Plan (SWEMP) will contain further details of the controls and management of surface water on-site.

Liberty Industrial shall implement, wherever practicable, the recommendations set out in the Soils and Constructions-Volume 1(The Blue Book) Plans and comply with DA/413/2014 requirements. See Appendix A: Example of sediment controls.

All surface run-off and groundwater (this will also include any contaminated run-off produced by the demolition operations) as well as excavations shall be collected and conveyed to settling ponds and oil traps, as required, prior to discharge into the environment. All discharges to watercourses or drains shall meet the relevant requirements of the Environmental Protection Authority.

Liberty Industrial shall ensure that all water is discharged in a condition and manner so as not to cause erosion or pollution to water quality, or nuisance to other persons within or adjacent to the site.

Polluted water from any source shall not be allowed to enter any watercourse without first being settled and treated to remove the pollution. A consultative approach with Hanson Construction Materials Pty Ltd will be undertaken.

7.8.2 Care of Watercourses

All proper precautions shall be taken by Liberty Industrial to prevent erosion of the bed or banks of any watercourse, and to prevent the pollution of any watercourse of excavated or eroded materials that may result from the execution of the project work.

7.8.3 Soil Conservation

All precautions shall be taken by Liberty Industrial to prevent the erosion of soil by wind or water on land, used or occupied by Liberty Industrial and to prevent the deposition of soil in watercourses during any execution on the project. Existing soil binding vegetation and established ground surfaces shall not be disturbed unless necessary for the purpose of undertaking the works.

If, in the opinion of Hanson Construction Materials Pty Ltd, our operations cause erosion hazards, we will undertake soil conservation methods in these areas when directed by Hanson Construction Materials Pty Ltd. Soil conservation measures shall include, but not be limited to, stabilisation of embankment slopes by grassing or similar means to control erosion and

the construction of cut-off drains or sediment traps to prevent soil deposition outside the site. See Appendix A for proposed Sediment Control measures.

To assist in controlling the spread of soil-borne diseases and fungi, all plant required for the demolition of work shall be washed down before such plant is brought into the vicinity of the site.

All ACM contaminated soils will be managed in accordance with the Waste Management Plan.

Ref: Waste Management Plan

Storm Water Erosion Management Plan

7.9 ECOLOGICAL MANAGEMENT

7.9.1 Ecological Assessment and Risks

The Hanson Blackwattle Bay Concrete Batching Plant site is located at 1A Bridge Rd, Glebe, NSW 2037. The Statement of Environmental Effects (SEE), describes the demolition site as being heavily modified area with very limited remnant vegetation and is unlikely to contain any threatened ecological communities.

All demolition activities are to be conducted within these heavily modified areas with low ecological value, therefore there is a low potential for ecological impact.

7.9.2 Measures for the preservation of Flora and Fauna

Liberty Industrial's goal is to minimise impact to Flora and Fauna on-site by restricting demolition activities to identified heavily modified areas and not unnecessarily removing or clearing trees and vegetation.

Liberty Industrial prevent worker(s) from disturbing, capturing or destroying animals and birds within the site. Prior to any demolition activity an inspection and assessment of any risks to flora and fauna will be assessed. Any risks will be identified in the JHA and control measures implemented prior to starting.

7.9.3 Inspection Requirements

Any natural bushland areas on site that have been identified as being ecological sensitive and will be visually inspected prior to any disturbance for threatened species.

Trimming shall not be left against remaining vegetation. Where small trimmings or chippings are the result, they shall be laid over the exposed site or removed as directed by Hanson Construction Materials Pty Ltd or principal at the completion of work.

Where shown on the drawings, and as directed by Hanson Construction Materials Pty Ltd, all tree stumps, roots, brush, rubbish and any objectionable matter shall be disposed of in a lawful manner. Burning of material will not occur.

7.9.4 Site Specific Induction

The site-specific induction has been developed to include a section on Flora and Fauna.

Vegetation may only be trimmed to allow passage of machinery if there is no alternative route (determined in conjunction with Hanson Construction Materials Pty Ltd).

7.10 VEHICLE WASHDOWN, WEED MANAGEMENT

All ground engaging, earthmoving, and tracked equipment shall be cleaned before arrival on site to remove all dirt, stones, organic material prior to entering a weed free area to prevent transfer weeds and plants from other regions.

- All plant shall enter the site free from excess dirt.
- All drivers of vehicles leaving site will inspect their vehicles for any loose material or vegetation, and remove before leaving site.

Any loose or unsuitable material will be stored in an appropriate location and be managed as general waste, as per the Waste Management Plan.

Ref: Waste Management Plan

7.11 MANAGEMENT OF HYDROCARBONS

Liberty Industrial shall inspect all plant to be used on the works for oil and fuel leakage before it enters the site, and shall inspect all plant and equipment at regular intervals during the period it's on site.

Under no circumstances shall Liberty Industrial allow any plant to enter any watercourse.

Entry of oil, grease or fuel into any watercourse is prohibited. Drainage from any area likely to be so contaminated shall be effectively diverted to a suitable collection point.

Liberty Industrial shall provide, operate and maintain adequate facilities for the collection of leaking fuels, lubricants, oils, greases and the like, and for the transportation and lawful disposal of these materials off-site at lawful facility.

If contamination of the soil occurs due to the use of plant or spillage of any contaminant, then all contaminated soil shall be either removed from the site or be left for the remediation process to commence. Any soil disposed of will be accordance with the requirements of the Environmental Protection Authority.

In order to minimise the risk of polluting a watercourse, all servicing and fuelling of company plant shall be carried out at locations remote from any watercourse.

All hydrocarbons and chemicals shall be secondarily contained regardless of capacity and volume. Secondary storage facilities shall ensure 110% containment of material and prevention of pollution in the event of breach of primary containment, and shall be in accordance with design specifications of Australian Standard 1940.2014.

Service trucks and other vehicles used for the transportation of hydrocarbons and chemicals shall be fitted with appropriate spill catchment facilities to prevent drips and leaks to ground, and spill response equipment. Generators, welders, pumps or other stationary engines shall be fitted with pumps, drip trays, or placed in secondary containment facilities at all times.

Liberty Industrial will ensure at least one person in each work group is trained in competency-based Spill Response Techniques.

Releases of any amount of a chemical or petroleum product to the environment must be notified through to Hanson's representative immediately. Any spills greater than 20 litres is considered a reportable spill.

Spill clean-up materials shall be readily available at each work site where hydrocarbons and chemicals are stored and/or used.

Spills inside and outside containment facilities shall be picked up immediately with appropriate clean up material. Contaminated soil shall be picked up and contained for removal to a licensed facility. Contaminated clean up material shall be managed as oily waste.

Oily waste materials shall be segregated from general wastes and removed from site within 1 month by a licensed contractor.

Receipts shall be maintained as verification of type and amount of waste oil and oily materials removed from site.

Ref: PRO-040 Control of Hazardous Substance Spill

8 WASTE MANAGEMENT

During the course of the project domestic and industrial waste will be generated. These wastes may include but not limited to timber, oils, paints and solvents, sewage and general domestic refuse. All waste on-site will be managed in accordance with the Waste Management Plan (WMP).

In order to minimize any risk to the environment or the health of any personnel, the Project Manager will utilise approved procedures to manage the collection, storage and removal of waste from site. The Project Manager will ensure all waste removed from site is documented. Details include:

Type of waste being removed;

Quantity of waste being removed;

Location of where waste is to be disposed of;

Amount of waste recycled and destination;

Waste tracking control measures;

Liberty Industrial places a high priority on recycling waste materials and will use facilities in close proximity of the project to maximize recycling. Empty oil and chemical containers such as metal or plastic drums will be returned to the supplier for reuse or recycled where possible.

Ref: FRM-123 General Waste Register

8.1 DISPOSAL PROCESS

To effectively manage waste on the project site, Liberty Industrial will:

- provide suitable containers for storage, collection and transport of waste;
- dispose of site generated waste at approved disposal facility;
- recycle all waste material where practicable i.e. ferrous and nonferrous materials; and

- provide documentation that details waste leaving site along with waste tracking;

8.2 WASTE AND HAZARDOUS MATERIALS

Liberty Industrial will be responsible for the removal of all waste material generated during the demolition. All waste will be managed in accordance with the Waste Management Plan (WMP)

Where practical waste material will be recycled, where this is not possible it will be disposed of in a lawful manner. Absorbent material used to mop up minor oil or chemical spills will be disposed of appropriately as contaminated material.

Ref: Waste Management Plan

8.2.1 Concrete

Concrete from above ground structures will be processed and taken off site. All concrete slabs are to left as per the contract requirements.

8.2.2 Asbestos

A detailed account of Liberty Industrial's process for asbestos removal is included in the Demolition Management Plan and Asbestos Removal Control Plan under separate cover. All asbestos will be removed from site to a lawful facility.

Ref: PRO-039 Asbestos Removal

Asbestos Removal Control Plan

8.2.3 Chemical Container Wastes

The contents of any drums and containers around the site will be identified, removed and disposed of prior to commencement of Demolition. All worker(s) will wear suitable clothing and protection equipment where required as prescribed in the JHA.

8.2.4 Domestic Waste

Domestic waste generated on site will mainly consist of food scraps and rubbish from the crib room. These scraps will be placed in domestic rubbish bins or skips located at each crib room, and recycled or disposed of by a licensed contractor.

8.2.5 Solid Waste

Solid waste generated during deconstruction shall be classified as recyclable and non-recyclable waste.

Recyclable waste consists of:

- Scrap steel (ferrous and nonferrous);
- Concrete and brick;
- Waste oil;

8.2.6 Non-Recyclable Waste

- Timber;

- Rubble;

This waste shall be stockpiled located around the site, collected and disposed of at the approved location.

8.2.7 Hazardous Waste

Hazardous waste may include paint and solvent containers, insulation materials, oils and cleaning chemicals. All Hazardous waste will be managed in accordance with the Hazardous Substance Management Plan.

- Hydrocarbon waste shall be collected, stored and transported offsite for recycling or disposal at an approved facility;
- Chemical waste shall be stored in accordance with the SDS for that substance and shall be disposed of in accordance with EPA and local requirements;
- Any contaminated soils shall be placed in leak-proof containers and removed from site to an authorized facility;

8.2.8 Synthetic Mineral Fibre (SMF)

- All SMF will be wet down and removed using an excavator and will be disposed of as demolition waste.
- Loose debris shall be collected and bagged with workers wearing disposable overalls and P2 mask.

Ref: Hazardous Substance Management Plan

9 STORAGE AND USE OF HAZARDOUS MATERIALS

The use and storage of hazardous materials on site may be required during the project. Therefore, it is imperative that all site worker(s) are aware of environmental procedures to ensure:

Protection of the environment;

Compliance with statutory requirements;

Risks associated with chemical hazards are controlled;

Protection of the Health and Safety of worker(s);

All Hazardous substances on-site will be managed in accordance with the Hazardous Substance Management Plan.

9.1 CHEMICAL SUBSTANCES AT THE DEMOLITION SITE

Unnecessary procurement, storage and handling of hazardous materials must be managed to ensure possible environmental degradation is kept to a minimum.

A Safety Data Sheet is required on site for referencing. A risk assessment must be undertaken for any hazardous materials and dangerous goods to be brought onsite.

Should there be a requirement for the use and storage of hazardous goods, Liberty Industrial will maintain a Hazardous Substance Register.

9.2 SAFETY DATA SHEET

A Safety Data Sheet (SDS) must be obtained for each substance brought onto the deconstruction site. The SDS must be obtained from the manufacturer or supplier and be filed on site for references by worker(s).

Ref: WI-025 Hazardous Substances - Safety Data Sheets

9.3 LABELLING

All containers containing hazardous substances must be clearly labelled identifying its contents. Further information is available by referencing the SDS, usually located in the project office. Prior to substances coming on site, a hazardous substance assessment will be conducted. Any decanted substances must be clearly labelled with the product name.

Ref: Hazardous Substances Management Plan

10 RISK MANAGEMENT

Risk Assessment involves the identification of hazards (potential to cause harm), the assessment of the risks posed by those hazards, the development of controls to eliminate and minimise risks and the ongoing management of the risk controls.

Risk Assessment and Risk Management strategies will be used consistently throughout the project. JHA's will be conducted prior to the commencement of each activity. The JHA is used to identify both WHS and Environmental hazards. If a task changes significantly or a change occurs in the environment, or other hazards are identified, the JHA will be reviewed.

A copy of the JHA will be available at the workplace and the original filed in the Project Office.

The Site HSEQ Advisor is responsible for ensuring risk controls are implemented and monitored for effectiveness. The Project Manager is responsible for providing sufficient resources to ensure risk controls are implemented.

Ref: PRO-015 Hazard and Risk Management Procedure, Liberty Industrial COVID-19 Management Plan

WI-009 How to conduct a Hazard Risk Assessment

10.1 HAZARD IDENTIFICATION AND REPORTING

Any worker(s) identifying a hazard shall:

- Report the hazard immediately to the supervisor;
- Stand guard until the supervisor arrives to assess the hazard;
- The responsible supervisor shall ensure identified hazards are promptly reported and recorded on the Hazard Reporting Card;

All Hazards shall be actioned and signed off as completed in a timely manner.

Hazards will be reported to the supervisor as soon as possible. If the hazard can be corrected or controlled by the worker(s) that identify it they must do so immediately. If the hazard cannot be corrected or controlled the hazard must be isolated and other worker(s) protected from the hazard.

Ref: DRAW

10.1.1 Take 5

Worker(s) are encouraged to be accountable for their own and others actions, and to immediately address issues that are unsafe or have unacceptable risk.

To facilitate this behaviour, Liberty Industrial will use the Take 5 System where all employees carry a formatted note book to help identify a hazard or potential hazard, which requires the individual to take action and document the action taken. All employees and subcontractors will be operating under this system and will be instructed in its use during the site induction.

All tasks will have a Take 5 carried out immediately before that task is under taken.

Take 5 is a simple hazard identification and risk assessment, undertaken immediately prior to starting the task. It is designed to ensure that personnel assess each task for risk by completing the checklist as follows:

- Think through the task – break into steps;
- Spot the hazard – “What if”;
- Assess the risk;
- Make the changes;
- Do the job safely.

Ref: WI-011 Take 5

10.2 HAZARD INVESTIGATION

All environmental hazards and issues are to be reported as soon as practicable to the relevant supervisor.

The supervisor will investigate hazards reported immediately; the investigation findings will be detailed and reported back to the workgroup at the next opportunity (normally pre-shift meeting).

The intent of Hazard Reporting Card is to be pro-active in identifying, evaluating and controlling hazards that may result in incidents involving injury, environmental issues or equipment damage.

Should the matter remain unresolved, it will then be addressed between the employee, their supervisor, and the Project Manager.

Ref: PRO-015 Hazard and Risk Management

WHS Management Plan

11 MONITORING AND REPORTING

Liberty Industrial has a number of measurement indicators which help us to track progress on meeting policy commitments, and to achieve objectives and targets. We primarily collect and analyse data to evaluate the organization's environmental performance, and to evaluate the performance of the environmental management system.

These progress indicators are used across a range of activities such as storage and handling procedures, noise and air quality, disposal activities, and are primarily used to measure elements such as, the number of environmental incidents, the number of environmental accidents, the percentage of waste recycled, and, the number of prosecutions incurred by Liberty Industrial.

Weekly Workplace Inspections will be conducted by the Liberty Industrial Supervisors and Site HSEQ Manager, and documented in Liberty Industrial Integrated QSE Management System. Monthly Site Audits will also be completed and documented.

The EnvMP will be updated as needs be pending findings from any site audit or environmental inspection.

During times of heightened periods when infectious diseases outbreaks could accrue measures within the Liberty Industrial COVID-19 Management Plan with regard to social distancing may be implemented.

Ref: PRO-015 Hazard and Risk Management

WHS Management Plan

Monthly Site Audit

Liberty Industrial COVID-19 Management Plan

Weekly Workplace Inspection

11.1 METHODS OF EVALUATION

We use a range of methods to evaluate our progress and compliance against the set criteria. These include processes such as

- Audits, both internal and external;
- Review of documents and/or records;
- Employee and GPM Co. feedback;
- Project or work reviews and reporting;
- Direct observation;

11.2 REPORTING

As a minimum on every project, the Project Manager will:

- Establish and maintain necessary records for the recording and reporting of environmental incidents at the workplace;
- Encourage worker participation in reporting environmental incidents;
- Ensure all environmental incidents are investigated and reported in accordance with company procedures;

- Notify the relevant Authority of environmental incidents, as required;

In general, and where appropriate on specific projects, the Project Manager will take responsibility to:

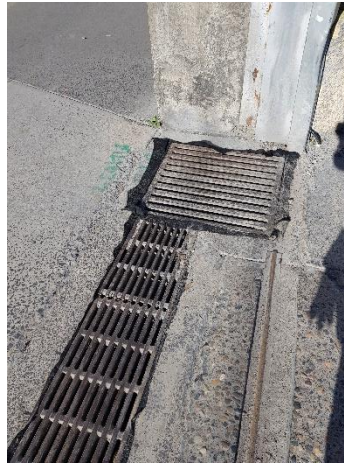
- Arrange environmental talks, demonstrations, posters, etc. to promote environmental awareness where required and display Liberty Industrial's commitment;
- Investigate any environmental degradation at the workplace and promote interest in the environment and control strategies;
- Establish a daily checklist of those environmental issues considered in need of monitoring, such as; dust levels, noise levels and odour levels;

During times of heightened periods when infectious diseases outbreaks could accrue measures within the Liberty Industrial COVID-19 Management Plan with regard to social distancing may be implemented.

Ref: Liberty Industrial COVID-19 Management Plan

12 APPENDIX A: EXAMPLES OF SEDIMENT CONTROLS

Stormwater system sediment controls



Sediment protection along gutters and around stormwater grates



Sediment protection stormwater grates, drains and edges