Metropolitan DEMOLITIONS GROUP

Environmental Management Plan (EMP)

13-23 Gibbons Street Redfern

Wee Hur (Aust) Student Housing

Demolition of Existing Structures to Ground Slab Level

Project No: MD 2393

For

Wee Hur (Aust) Pty Ltd

Details	Title	Name	Signature	Date
Prepared By:	Project Manager	Andrew Sapountzis		11.11.2020
Reviewed & Approved By:	Director/Ops/HSE Mgr	Nick Giannikouris		11.11.2020

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Contents

EMP - Revision Control

This EMP issue number	Date Issued	Amended Page(s)	Action / Amendment Description	Approved By
2	11.11.2020	NA	FOR ISSUE	**Andrew Sapountzis**

EMP - Review

Date Reviewed	Reviewed By	Was Revision Required

EMP - Controlled Document Distribution

Issued To	Organisation	Date	Authority
Site Supervisor	MDG	13.10.2020	Andrew Sapountzis

1. Project Information

1.1 Project Scope of Works

Metropolitan Demolitions Pty Ltd has been engaged by Wee Hur (Aust) to undertake demolition works at 13-23 Gibbons Street Redfern.

The scope of works includes:

- Demolition of Multiple Commercial structures
- Strip out and Detailed Demolition
- Waste sorting and removal
- Traffic Management
- Asbestos Removal

Areas that are not included in the scope or are not under the control of influence of MDG are:

- Knowledge of contaminants in the ground
- Groundwater contamination
- Groundwater removal
- Excavation / Retention Works
- Construction Works / Building works
- Increased traffic in public domain
- Weather conditions
- Increased activities of adjoining properties and construction sites
- Major development of road or infrastructure works by Public Authorities e.g. Councils

1.2 Site Description

The scope of work involves complete demolition of the existing multi-low level residential structures at 13-23 Gibbons Street Redfern to make way for the construction of a high rise student accommodation.

1.3 Site Photo

Images Courtesy of Nearmaps

1.4 Site Environmental Conditions

The site has the following environmental conditions:

- Structure contains SMF
- Site has underground stormwater & water / sewer services / gas services
- Site has overhead services

1.5 Project Environmentally Sensitive Areas

The environmentally sensitive areas identified for the project are:

- Heritage buildings (nearby)
- Public buildings / domains / centres
- Parkland
- Protected species
- Offices & major works
- High profile site
- Hospital (nearby)
- Nearby laboratory
- Underground railway tunnel
- High pedestrian & vehicular traffic

1.6 Project Surrounding Sites

The site has the following adjoining neighbouring properties:

- Northern neighbour(s) – High Rise Residential under construction & Commercial buildings
- Southern neighbour(s) – Low Rise Residential
- Eastern neighbour(s) – Commercial businesses, Low Rise Residential & Church
- Western neighbour(s) – RMS road and parkland

1.7 Key Contacts

Client Details:	Is the client the Principal Contractor	☐ Yes ☒ No	
Company Name:	Wee Hur (Aust) Pty Ltd		
ABN:	99 215 227 858		
Address:	8 Gillingham Street Woolloongabba QLD 4102 Australia		
Phone:	8 Gillingham Street Woolloongabba QLD 4102 Australia		
Fax:	NA		
Email:	peterscott@weehur.com.sg		
Client Contact Name:	Peter William Scott		
Client Contact Phone Number:	0431 626 982		
Demolition Contractor Details:	Is the contractor the Principal Contractor	☒ Yes ☐ No	
Company Name:	Metropolitan Demolitions Pty Ltd		
ABN:	67 099 769 052		
Address:	Level 1, 396 Princes Highway, St Peters, NSW 2044		
Postal Address:	Po Box 154, St Peters, NSW 2044		
Phone:	02 9519 3099		
Fax:	02 9516 2746		
Email:	info@metrodemo.com.au		
Project Specifics:			
Project Name:	MD 2393 13-23 Gibbons Street Redfern		
Project Address (Location):	13-23 Gibbons Street Redfern		
Start Date:	Nov 2020	Completion Date:	Jan 2021
Peak number of people on site:	10-25		
Project Contacts:			
Project Manager:			
Name:	Andrew Sapountzis		
Phone Number:	Mobile: 0497 603 906	Office: 02 9519 3099	
Email:	andrew@metrodemo.com.au		
Competent Person On Site:			
Supervisor 1 – Name:	Adam Dowling		
Phone Number:	0432 483 256		
Supervisor 2 – Name:	John Giannikouris		
Phone Number	0418 877 775		
Project Engineer / Environmental Representative			
Name:	Sean Ryan		
Phone Number:	0450 006 381		
Other			
Name:			
Phone Number:			
Name:			
Phone Number:			

2. Terms and Definitions

Term	Definitions
Competent Person	A person who has acquired through training, qualification, experience or a combination of these, the knowledge and skills necessary to perform or supervise the task required.
Incident	An unforeseen event, which has potential or leads to injury or illness to a person, loss or damage to property, environmental damage and includes near misses.
Metropolitan Demolitions Group (MDG)	Metropolitan Demolitions Pty Ltd and Metropolitan Demolitions & Recycling Pty known as Metropolitan Demolitions Group (MDG)
Near Miss (NM)	Any unplanned incidents that occurred at the workplace which, although not resulting in any injury or disease or release or pollution had the potential to do so
Notifiable Incident (Environmental)	An incident that requires notification to the Regulatory Authority (e.g. EPA NSW) in instances where: • There is a risk of material harm to the environment and involves actual or potential harm to the health and safety of humans or to ecosystems that is not trivial; or • Involves actual or potential loss or property damage exceeding $10,000
Project	Means site, construction, demolition, excavation, strip out and fit out activities
Quality Health, Safety & Environment (QSE)	Quality, Health, Safety and Environment
Responsible Person	Means the MDG Manager responsible for the work area, or work activities undertaken by persons for which the QSE issue has been identified. This may refer to the Directors, Operations Manager, Accountant, HR & Payroll Manager, Property Manager, Project Managers, Recycling & Transport Manager, Reusables Manager, Stores Manager, Site Supervisor, Site Forman or Supervisor depending on the nature of the issue
Significant Risk	Means a worker in the workplace is likely to be exposed at a level that could adversely affect their health from a hazardous chemical. Substance or hazard.
Worker	A person that carries out work in any capacity for MDG, including work as: an employee, contractor, subcontractor, employee of a contractor or subcontractor, an employee of a labour hire company who has been assigned to work in the person's business or undertaking, an apprentice or trainee, a student gaining work experience, volunteers etc.

3. Environmental Management System

This Environmental Management Plan (EMP) has been developed by MDG to address environmental issues and risks associated with the 13-23 Gibbons Street Redfern project and meet Client/Contractual/legal and other requirements. The primary purpose of this EMP is to identify Environmental Risk and document the proposed process to manage those Environmental Risks at 13-23 Gibbons Street.

This EMP has been developed to meet the requirements of:

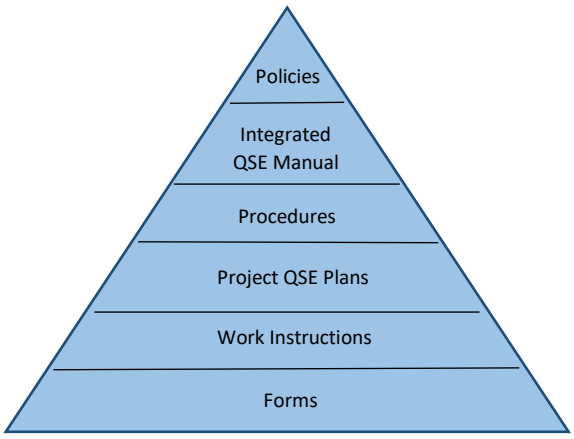
- *AS/NZS ISO 14001:2016 Environmental Management Systems – Requirements With Guidance for Use*
- *Environmental Management Systems Guidelines 3rd Edition 2014 (NSW Government)*
- Applicable Environmental and Work Health and Safety legislation

MDGs Integrated QSE Management System contains all health, safety, environment and quality policies, procedures, plans, work instructions and forms. The QSE Management System is a critical tool in ensuring that all MDG activities are planned, implemented, audited and reviewed to enable ongoing improvement in MDGs QSE Management System performance.

MDGs Integrated QSE Management System has been developed to meet the requirements of:

- *Australian Government Building and Construction WHS Accreditation Scheme (FSC)*
- *AS/NZS 4801:2001 Occupational Health and Safety Management Systems – Specifications with guidance for use*
- *AS/NZS ISO 14001:2016 Environmental Management Systems – Requirements with guidance for use*
- *AS/NZS ISO 9001:2016 Quality Management Systems - Requirements*

The structure of the QSE Management System is represented diagrammatically below:



MDGs Integrated QSE Management System is hosted on the MDG 'Q' share drive and is available to all MDG employees in providing a set of key resources such as:

- Document Control & Records Management
- Legal & Other Requirements
- Communication and Consultation
- QSE Risk Management
- Incidents & Non-conformances
- Training

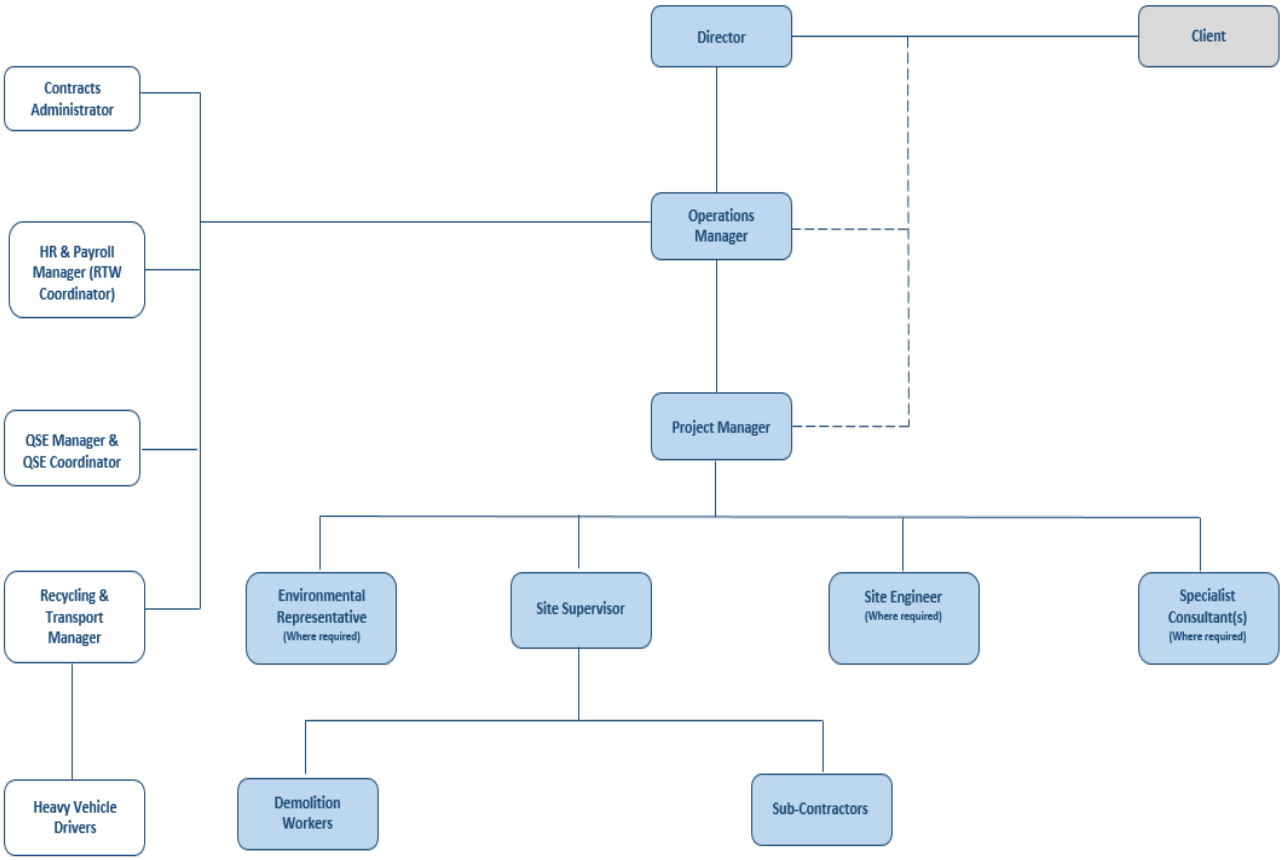
This EMP is to be read in conjunction with the Safety Management (SMP) and Demolition Work Plan (DWP) where developed for the project. Other project documents that may be used during the project include:

- Asbestos Management Plan
- Emergency Response Plan (ERP)
- Traffic Management Plan

EMP forms used for this project are listed in **Appendix A**.

4. Leadership & Commitment

4.1 Project Structure



4.2 Environmental Policy

Metropolitan DEMOLITIONS GROUP

ENVIRONMENTAL POLICY

Metropolitan Demolitions Pty Ltd and Metropolitan Demolitions & Recycling Pty Ltd known as Metropolitan Demolitions Group (MDG) is a well-recognised provider of demolition and civil services including hired plant, recycled and reusable products to various industry sectors and the general public. In addition MDG operate an EPA licensed recycling facility in St Peters, NSW accepting brick and concrete for processing to various recycled products.

At MDG, we believe that the environment must be protected throughout the delivery of all services provided with particular attention to waste minimisation, recycling of natural resources and the prevention of pollution.

In order to develop and measure our environmental performance we shall as required:

- Comply with the spirit and word of applicable environmental legislation;
- Establish and review measurable environmental objectives and targets;
- Implement, maintain and regularly review the environmental management system for continual improvement and comply with the requirements of AS/NZS ISO 14001;
- Maintain compliance to Green Star reporting criteria as a Waste Contractor and Waste Processing Facility
- Ensure all workers, contractors and visitors are aware of their environmental responsibilities;
- Implement and maintain environmental risk management processes to ensure environmental aspects and impacts are properly identified, assessed (where appropriate), controlled and regularly reviewed;
- Provide relevant information, training and resources to our workers to meet the commitments of this policy;
- Consider cost effective new and improved technologies to minimise environmental impact;
- Encourage an open reporting culture to ensure that all environmental incidents that may occur in the workplace are appropriately reported and assessed to minimise potential future occurrences;
- Actively communicate and engage with workers, regulators and external stakeholders to recognise and respond to environmental concerns; and
- Prominently display this policy in the workplace and make available to interested parties as required.

It is a requirement that all workers, contractors and visitors comply with this policy and the MDG environmental management system requirements at all times.

This policy will be reviewed to ensure it remains relevant and appropriate to MDG and its activities.

Authorised by:

Paul Giannikouris (Director)			1st May 2018
Metropolitan Demolitions & Recycling Pty Ltd	*Signature*		*Dated*
Nick Giannikouris (Director)			1st May 2018
Metropolitan Demolitions Pty Ltd	*Signature*		*Dated*

Issue Date:	01.05.2018	Version Number:	002	Scheduled Review Date:	01.05.2020
Doc Reference:	C-QSE-003	Document Owner:	Directors	Page:	1 of 1

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4.3 Roles, Responsibilities and Authorities

Roles / Position	Responsibilities
Director **Nick Giannikouris**	• Ensure that sufficient resources are available on site to ensure successful management of environmental matters • Ensure implementation of EMP by Project Manager and Site Supervisor • Ensure environmental issues are appropriately addressed • Liaison with Client and other stakeholders, as required • Attend Environmental Risk Reviews, as required

Operations Manager
Paul Giannikouris
	• Assist Director and Project Manager in environmental planning
	• Assist the Director with:
	  ○ Ensure that sufficient resources are available on site
	  ○ Ensuring implementation of EMP by Project Manager and Site Supervisor
	  ○ Ensuring environmental issues are appropriately addressed
	• Monitor performance of the project

Project Manager **Andrew Sapountzis**	• Develop, approve, maintain and implement the EMP • Have overall responsibility for Environmental matters on site • Coordinate Environmental Risk Reviews • Ensure that works are undertaken in accordance with MDGs Environmental Policy and objectives and other requirements of this EMP • Ensure training and awareness is provided to workers in environmental matters • Review the environmental aspects/impacts for the project and ensure the EMP addresses all requirements • Ensuring all workers are aware of MDGs environmental requirements and this EMP • Ensuring environmental records are maintained • Liaison with Client and other stakeholders • Arrange and provide resources as required for the project • Ensure EMP objectives and targets are being met
Site Supervisor **Adam Dowling** **John Giannikouris**	• Implement the EMP on site • Conduct works in accordance with MDGs Environmental Policy and objectives and other requirements of this EMP • Ensure effective environmental controls are implemented for the life of the project • Ensure that monitoring and testing is performed in accordance with specification and statutory requirements • Identify, recommend and implement solutions to environmental issues • Attend Environmental Risk Reviews • Ensure that all workers are properly inducted in the requirements of this EMP • Request resources for the successful management of environmental matters • Communicate site environmental issues, incidents and environmental performance to management • Provide leadership in addressing environmental issues • Ensure the EMP is maintained for the duration of the project • Ensure the Project Risk Assessment document is current • Ensure records are maintained

Roles / Position	Responsibilities
Environmental Representative / Project Engineer **Sean Ryan**	• Assist the Site Supervisor and Project Manager with implementation of this EMP • Maintain the EMP and controlled distribution • Maintain the Project Risk Assessment in consultation with the Project Manager and Site Supervisor • Prepare & compile EMP documents for the implementation of environmental controls • Implement environmental procedures for the works • Undertake environmental monitoring, testing and inspections • Induct workers and subcontractors in the requirements of the EMP • Review Subcontractor environmental documentation prior to commencement of works • Investigate all environmental complaints and incidents • Recommend and initiate solutions to environmental issues and verify implementation • Assist the Project Manager with environmental complaints • Identify environmental risks and conduct Environmental Risk Reviews • Maintain and control environmental records • Ensure resources are available for the management of environmental matters • Take prompt and effective action to control any environmental incidents that have the potential to impact on the environment and resulting corrective actions
Workers	• Carry out their work in accordance with MDGs Environmental Policy and objectives and the requirements of this EMP • Where possible, take immediate steps to control identified hazards in the workplace • Work in a manner without risk to themselves, others or the environment • Participate in toolbox meetings, training programs, risks reviews, inspections and audits as required by MDG • Reporting all incidents to the Site Supervisor • Follow instructions as required by the Site Supervisor
Sub-Contractor / Consultants / Specialists	• Conduct their work activities in accordance with this EMP, in an environmentally sensitive manner and relevant environmental legislation and other requirements • Ensure all plant and equipment is fit for use and appropriately tested and maintained • Comply with MDGs Site Safety Rules • Adequately instruct their workers in correct methods and environmental safe working practices • Report all incidents to the Site Supervisor • Follow instructions as required by the Site Supervisor
Visitor	• Register their attendance and departure to and from site • Abide by all work site instructions provided by MDG management and work site signage • Unless a full project site specific induction is completed, ensure they are accompanied by MDG representative at all times • Report all incidents to the Site Supervisor

Roles / Position	Responsibilities
QSE Manager ***Shane Morris***	• Establish and maintain MDGs Integrated QSE Management System • Represent MDG on environmental matters including liaison with the regulator • Support the project team in development and implementation of this EMP • Monitor the effectiveness of MDGs QSE Management System • Undertake and coordinate QSE audits • Monitor and communicate QSE Alerts and changes to legislation

Accountability

a) Managers are accountable for:
   - Monitoring performance of direct reports against established KPI's
   - Monitoring corrective actions to ensure implementation and continuous improvement and performance of individuals
   - Promoting awareness and taking action to correct situations of inadequate environmental control or instances of poor behaviour

b) Workers will be held accountable through day to day supervision and monitoring of performance by their Site Supervisor and/or Foreman.

c) Subcontractors will be held accountable through application of the ***Purchasing & Subcontractors Procedure P-QSE-009***.

Authority – All Workers

- Authority to stop work in the event that they feel that controls are insufficient or in order to prevent or mitigate an adverse environmental condition; and
- Authority to discuss environmental matters with Senior Management or Environmental Representative or appointed persons.

5. Planning

5.1 Environmental Aspects

This EMP and sub-plans includes actions to control potential impacts associated with the works and include items identified in **Section 1** of this EMP. Areas of potential environmental impact for the project include:

- Water Pollution
- Sediment laden stormwater run-off
- Air quality
- Noise and vibration
- Spoil management
- Heritage
- Traffic & pedestrians
- Community Relations
- Hazardous materials (e.g. asbestos)
- Hazardous chemicals
- Waste management
- Contamination
- Flora and Fauna
- Tree protection, lopping and removal
- Erosion

This EMP takes into consideration relevant clients or other interested parties needs and expectations:

- Contractual requirements
- Development Application requirements / Planning Approval conditions / Construction Certificate
- *Code of Practice: Construction Hours/Noise within the Central Business District 1992 (City of Sydney)*
- TfN Government requirements

5.2 Compliance & Other Obligations

This EMP incorporates applicable Environmental Legislation, Codes of Practice, Australian Standards and other Guidelines for the project. MDG workers (including subcontractors) must comply with relevant Environmental and WHS legislation, Codes of Practice and industry standards as applicable to their work activities.

The Project Manager will identify compliance or other obligation changes for the project in consultation with the QSE Manager. Where changes are identified, a review will be conducted to identify whether an amendment of the EMP and the communication process to be used for MDG operations. Such changes will be communicated to MDG workers using Pre-start or Toolbox Meetings.

A corporate legal register exists and can be made available on request. The register is maintained in accordance with ***Legal & Other Requirements Procedure P-QSE-004***, as they apply to MDG operations and activities.

5.2.1 Regulatory and Legislative Requirements

A register of environmental legislation and regulations relevant to the project is outlined below.

Legislation Title	Application/Relevance	Administering Authority
Environmentally Hazardous Chemicals Act 1985 and Regulation 2008	Use of environmentally hazardous chemicals on site (if required)	NSW Environment Protection Authority
Dangerous Goods (Road and Rail Transport) Act 2008 and Regulation 2009	Transport of dangerous goods / and transport of contaminated materials	NSW Environment Protection Authority
Protection of the Environment Operations Act and Regulations 1997 (POEO)	Environmental protection, provides licences	NSW Environment Protection Authority
POEO (Noise Control) Regulation 2017	Noise control	NSW Environment Protection Authority
POEO (Underground Petroleum Storage Systems) Regulation 2008	Underground petroleum tanks	NSW Environment Protection Authority
POEO (Penalty Notices) Regulation 2004	Penalty Notices	NSW Environment Protection Authority
POEO (Clean Air) Regulation 2010	Atmospheric pollutants including dust and odour	NSW Environment Protection Authority
POEO (Waste) Regulation 2005 and Waste Management amendment 2008 POEO (Waste) Amendment Act 2017	Waste management and recycling	NSW Environment Protection Authority
Waste Avoidance and Resource Recovery Act 2001	Waste management and recycling	NSW Environment Protection Authority
Protection of the Environment Administration Act 1991 and Regulation 2012	Environment Protection	NSW Environment Protection Authority
Catchment Management Authorities Act 2003	Catchment Management	Various Catchment Management Authorities
Environmental Planning and Assessment Act 1979	Planning and Assessment	Planning Authority
Heritage Act 1977	Management of Heritage listed structures on site	Planning Authority
Local Government Act 1993	Planning and Assessment	Planning Authority
Work Health and Safety Act 2011	Workplace safety	SafeWork NSW (WorkCover)
Work Health and Safety Regulations 2017	Workplace safety and asbestos handling	SafeWork NSW (WorkCover)
NSW Contaminated Land Management Act 1997 and Regulation 2013	Land Contamination	NSW Environment Protection Authority

5.2.2 Codes of Practices, Standards and Guidelines

Policy / Standards / Guidelines	Application/Relevance
AS 2601 Demolition of structures	Specific demolition guidelines
Code of Practice – Demolition work 2016, SafeWork NSW	Specific demolition guidelines
Code of Practice - How to safely remove asbestos 2016, WorkCover NSW	Asbestos removal
EPA Asbestos & Waste Tyre Guidelines	Asbestos Transport
AS 1940 The storage and handling of flammable and combustible liquids	Dangerous Goods and Hazardous Chemicals
Storing and handling liquids – Environmental Protection Participants Manual (DEEC 2007)	Dangerous Goods and Hazardous Chemicals
Environmental Compliance Report Liquid Chemical Storage, Handling and Spill Management, Part B – Review of best practice and regulations (DECC 2005)	Dangerous Goods and Hazardous Chemicals
Code of Practice – Managing noise and preventing hearing loss at work 2016, SafeWork NSW	Noise/Vibration
AS 2670.2 Annex A Evaluation of human exposure to whole body vibration	Noise/Vibration
EPA Guidance Statement #8 – Environmental Noise (Draft)	Noise/Vibration
EPA Interim Construction Noise Guideline	Noise/Vibration
Code of Practice: Construction Hours/Noise within the Central Business District 1992 (City of Sydney)	Noise/Vibration
AS 2436-Guide to noise control on construction, maintenance and demolition sites	Noise/Vibration
EPA Guidance Statement #18 – Prevention of air quality impacts from development sites	Dust, Odour & Fumes
National Environmental Protection Measure – Ambient Air Quality	Dust, Odour & Fumes
Urban erosion and sediment control field guide – BLUE BOOK (Department of Land and Water Conservation)	Erosion and Sediment Control
NSW Guidelines for construction sites 1998	Erosion and Sediment Control
Code of Practice – Excavation Work 2015 (WorkCover NSW)	Erosion and Sediment Control
Manual Managing Urban Stormwater – Soils and Construction 2008 (Department of Housing)	Stormwater Management
Planning Guidelines SEPP 55 – remediation of land	Land Contamination
NSW Government Waste Reduction and Purchasing Policy (WRAPP)	Waste Management
NSW Waste Classification Guidelines, 2014 (EPA)	Waste Management
Environmental Guidelines: Assessment, Classification & Management of Liquid & Non-Liquid Wastes 1999 DEC	Liquid waste

5.2.3 Project Specific Approvals, License(s), Permits and Client Requirements

The following table represents the project specific approvals, licenses, permits and Client requirements:

Regulatory Authority / Other	License/Permit/Approval	Purpose	Approval Holder
SafeWork NSW (WorkCover)	Demolition Permit	Demolition to be undertaken by SafeWork Licensed Contractor	MDG
SafeWork NSW (WorkCover)	Asbestos Removal Permit AS1 or AS2	Removal of Asbestos	ATS
SafeWork NSW (WorkCover)	Lead Removal Notification	Removal of Lead	ATS
NSW EPA	Trade Waste Permit (where required)	Permit to pump to sewer	MDG
Local Council	Temporary Anchor Approval (where required)	Place temporary anchors in adjoining Council land	Not Applicable
Neighbour / Client	Air Space Approval (where required)	Install equipment or other equipment above adjoining neighbours property	Wee Hur (Aust)
Neighbour / Client	Ground Space Approval (where required)	Install anchors, infrastructure or other equipment under adjoining neighbours property	Wee Hur (Aust)
City of Sydney Traffic Requirements	Traffic Control Plan Approval & Temporary Road Closure Permit (where required)	To manage traffic and pedestrians requiring access to site or other road operations	MDG
RMS	Wide Load Permit (where required)	Transport of wide/long loads such as Float Vehicle for plant	MDG
EPA	Licensed to transport hazardous waste (where required)	Transport hazardous liquid waste within NSW to recycling facility or landfill	ATS

5.3 Environmental Risk Assessment

A process of environmental risk identification, assessment and monitoring will be incorporated into all activities for the project. This shall be implemented through a comprehensive and site specific "Environmental Risk Assessment" in conjunction with MDG workers and the Environmental Representative, prior to the commencement of each stage of the works.

Environmental Risk Reviews will be held at different stages during the project to ensure that environmental risks are identified, assessed, and controls implemented and reviewed to ensure ongoing effectiveness. The outcomes of this process will be reflected in and managed via the relevant Management Plans, Sub Plans and ***Project Risk Assessment*** to ensure effective controls are developed to minimise the environmental risk during works activities.

The Project Risk Assessment (refer project Safety Management Plan (SMP)) will be reviewed at least quarterly and in instances:

- Prior to commencement of new phases of the project;
- Where other changes occur to the workplace including emergencies;
- Following environmental incidents or near misses;
- Following adverse findings of site inspections or audits or investigations; and
- Following intervention by a regulatory body or authority (i.e. EPA, council).

Relevant SWMS or Work Instructions / SOPs will be developed in consultation with workers and include Aspects/Impacts where identified in the ***Project Risk Assessment***.

The ***Project Risk Assessment*** will be developed by the Project Manager, in consultation with workers and be maintained for the life of the project by the Site Supervisor/Environmental Representative.

5.4 Sub-Contractor Management

MDG will undertake a review of Subcontractors' documentation to verify compliance with the requirements of the Contractor's activities to be subcontracted. MDG will ensure that the documentation complies with the EMP(s); and undertake appropriate monitoring of each Subcontractor's environmental protection measures ensuring the specified environmental protection requirements are effectively implemented and maintained.

All subcontractors will be advised of the relevant DA/Planning Approval conditions and will be required to operate within the requirements of the MDG EMP and associated documents. They will also be required to develop a project specific SWMS/EWMS or Work Instructions / SOPs which include Aspects/Impacts before commencing works to confirm that their process and procedures identify:

<u>General</u>

All subcontractors engaged by MDG for works shall undertake works in accordance with:

- Relevant WHS legislation, Codes of Practice and Australian Standards;
- MDGs QSE Management System policies and procedures and EMP requirements; and
- Submitted safe work systems, SWMS/EWMS, Work Instructions or SOPs.

The selection, evaluation, monitoring, performance management and review of subcontractors shall be undertaken in accordance with MDGs ***Purchasing & Subcontractor Procedure P-QSE-009***.

<u>Assessment</u>

Subcontractors are to submit documentation (e.g. environmental systems, SWMS, etc.) to the Project Manager for review and assessment before attending site (where possible).

All subcontractors are to be assessed in line with their ability to perform the task efficiently and at a satisfactory cost including:

- Past performance, demonstrated capability and quality of work;
- The nature and scope and scale of the subcontractors activities;
- Safe work practices, use of SWMS/EWMS/Plans and documented systems;

- The sub contractors capacity to manage its own environmental performance effectively;
- The environmental sensitivity of the area(s) in which the subcontractors will be working;
- The potential environmental impacts of the sub contractors activities;
- The qualifications and experience of staff;
- The sub contractors previous environmental performance;
- Workers compensation and other insurance needs; and
- Review ***Project Environmental Controls Map*** with Sub Contractors.

Only subcontractors with adequate qualifications and environmental systems will be engaged to provide services. The subcontractors will provide relevant information relating to Public Liability, Professional Indemnity, Workers' Compensation insurances, licenses or certificates of competency, details on any environmental management systems or SWMS, Work Instructions or SOPs required as part of the evaluation process.

Environmental documents will be reviewed using the following applicable documents:

- ***SWMS Checklist***
- ***EMP Checklist***

Where subcontractor provided documents is deemed not suitable following review by MDG, the subcontractor will need to revise documents to the satisfaction of MDG. Works will not commence for the specific work activity until documents have undergone review and are accepted by MDG.

Monitoring

Subcontractors are expected to provide a high level of supervision of their workers on site and implement appropriate monitoring practices such as: work area inspections, task observations and SWMS review.

MDG will monitor subcontractor's safety compliance through mechanisms such work area inspections, observations, audits and reviews.

Non-conformance

Where a non-conformance is identified and is substantiated, a ***Corrective Action Report*** will be issued to the subcontractor following consultation with concerned parties. The Corrective Action Report will document the agreed actions and timeframes for addressing the non-compliance. Works in the affected area are to cease until corrective actions are made and the non-conformance is closed out. Non-conformances of a serious nature are to be closed out immediately.

The Site Supervisor will record all non-conformances on the ***Action Tracking Register*****,** monitor closely non-conformances and track close out. Re-inspection of the work or item is to be conducted before close out.

In instances where subcontractor performance does not improve after formal notification (issue of Corrective Action Report or performance meeting) the Project Manager will consider appropriate action such as:

- Suspension of work;
- Counselling of subcontractor personnel;
- Removal of subcontractor from the project; or
- Termination of a subcontractor/contract.

Note: where removal or termination of subcontractor is conducted the Subcontractor is to be removed from MDGs ***Approved Supplier List***.

Review of Subcontractor Performance

A meeting will be held with the Site Supervisor and MDG Project Manager at the completion of works to review the subcontractor's performance and assess their ability to efficiently perform on the contract.

Records of review are to be documented and the information is then to be sent to the MDG QSE Manager for collation and further reference.

5.5 Purchasing

Purchasing of environmental products for this project will be carried out in accordance with the MDG Procedure ***Purchasing & Subcontractors Procedure P-QSE-009***.

5.6 Design

Environmental controls designed for the project have been highlighted in the ***Project Environmental Controls Map*** – Refer **Appendix B**.

Environmental design considerations are based on known controls and processes and incorporated into the ***Project Environmental Controls Map***, this may include recommendations provided by environmental specialist(s). The Project Manager is responsible for the design and development of the ***Project Environmental Controls Map***.

Where changes to environmental controls occur such changes will be communicated to workers through the consultation process and site inductions.

MDGs process for management of environmental design is through the application of MDGs ***Design Procedure P-QSE-010.***

5.7 Environmental Complaints & Community Consultation

The Project Manager will promptly be responded to all environmental complaints within 24 hours of receiving and investigate. All complaints and remedial action will be documented in the ***Customer Complaints Register*** and communicated to the Client/Superintendent, as required.

MDG will display on site entry points emergency contact numbers and monitor MDG company website for complaints raised by the public.

The Project Manager is responsible for engaging local and community stakeholders to advise timings, duration of activities and address incidents or complaints. A ***Community Consultation Plan (CCP)*** will be developed by the project Manager, where required.

5.8 Change Management

In instances where planned or unplanned change occurs to such things as compliance obligation, resources, processes, products, equipment, technology or aspects. The following process is to be adopted:

- Conduct a risk assessment of the need for change or unplanned change event;
- Consult with relevant parties regarding change or unplanned change events including risk assessment for review;
- Review budget, project program, resource requirements, assess timings, impact and priority of change;
- Seek approval for change from relevant Responsible Person or Client
- Communicate changes through the consultation process to relevant worker(s), stakeholders or interested parties, as required in a timely manner;
- Update EMP, systems and processes to include item of change;
- Provide training in areas of change, where required; and
- Monitor implementation of change and review change to verify effectiveness to ensure the desired outcome is achieved.

5.9 Emergency & First Aid

The Project Manager is responsible for ensuring that a project ***Emergency Response Plan*** (ERP) is developed and established for the project, equipment is obtained, and workers have the appropriate qualifications to render assistance if required. The Site Supervisor or delegate shall instruct all workers and site visitors on the site emergency and evacuation procedures either during induction and whenever changes to procedures occur. The ERP will be maintained

for the duration of the project and shall be signposted on the site noticeboard or made available at the sign-in area - Refer project Safety Management Plan (SMP) for details.

For further details refer to procedure ***QSE Risk Management P-QSE-005*** and ***Emergency & Critical Incidents Procedure P-QSE-014*** and the Risk assessment is documented on ***Emergency Preparedness Risk Assessment***.

5.10 Environmental Objectives & Targets

The MDG environmental objectives and targets for this project are listed in the below table.

Objective	Targets
To comply with applicable legal and other requirements (environmental laws, regulations, statutory requirements and instruments of approval)	Nil instances of non-compliance with environmental statutory requirements (e.g. infringement notices, clean-up notices, etc.)
To implement a rigorous and comprehensive EMP that meets the requirements of AS/NZS ISO 14001, and continuously monitor and improve environmental performance	• 100% of weekly Environmental Inspections completed • 100% of Environmental Audits completed • 100% of 6 monthly EMP reviews completed • 100% Non-Conformances closed out
To minimise waste to land fill, maximise the recycling of waste and ensure traceability	• Under 10% of waste transported to landfill against 2015 levels • Over 90% of waste produced from the project is recycled • All waste generated and transported off site are sent to EPA licensed landfills or recycling facilities and disposal dockets are on file
Encourage all workers to report all environmental incidents and complete incident reports	100% identified incidents are reported and documented
To provide training and information on environmental aspects/impacts and controls for the project to workers	100% of workers are inducted into EMP prior to commencement of works on site
To ensure that all received complaints are promptly and appropriately responded to	• 100% of complaints are logged and responded to within 24 hours • Nil instances of authority intervention (e.g. council) from complaints not responded to
To meet all other objectives detailed in the Environmental Control Sub-Plans of this EMP	100% of all indicators met as described in the Environmental Control Sub-Plans of this EMP

The MDG management team shall demonstrate commitment to and accept the defined project objectives and targets. Project statistics will be reported monthly – refer Section 8.1.4.

6. Support

6.1 Resources

MDG will ensure that appropriate resources are scheduled including budget allocation to the project. The Project Manager, Site Supervisor and Site Engineer/Environmental Representative will establish, implement, maintain and continually improve this EMP in consultation with stakeholders and the QSE Manager (where required).

Other MDG personnel include office administration, accounts, human resources, QSE, transport, workshop and stores will assist and provide support during the project. Where required an Environmental specialist(s) will be engaged by the Project Manager at intervals or stages of the project to provide assistance in meeting environmental objectives.

MDG will ensure appropriate supplies and stocks of plant and equipment are available for the project at times when required.

The timely supply of requested items (e.g. spill kits, Geotech Socks, geo-tech material, pads and other equipment) is to be coordinated by the Responsible Person to ensure that objectives are achieved, there is to be no delay in project performance and the environment is not compromised due to insufficient supplies or unavailability of requested plant and equipment.

6.2 Competency, Training & Training Needs

All workers attending site will receive a site-specific induction that includes the environmental controls, requirements and provisions of this EMP. This includes noise, air pollution, water pollution, waste management, contamination, hours of work, ***Project Environmental Controls Map***, incident and complaint response, sensitive receivers and location of critical services. Any worker not inducted will be unable to commence works on site.

All workers shall attend environmental training based on Environmental Risk Assessment conducted for the project or activity – refer ***Project Risk Assessment***.

Evidence of training and competency is to be provided prior to commencement of works. Some key competency environmental standards for this project may include:

- ARC License to remove refrigerants;
- Specific hazardous liquid removal license
- Asbestos Awareness (removal)
- Traffic Management qualifications;
- Asbestos Removal
- Asbestos Removal Supervisor

The Project Manager is responsible for identifying and assessing the training needs for the project, developing a training program, training management/workers and evaluating the training process. The Site Supervisor is responsible for monitoring the skills required by workers to effectively implement the EMP and associated procedures on site. Records of induction and other training will be maintained in the site office. The training needs identified for the project will be documented using the ***Project Skills Register***.

Records of licenses, training and VOCs will be documented in ***Project Induction Form*** as part of the site induction process. Site inductions are to be recorded using the ***Project Induction Form.***

MDG maintain a ***License & VOC Register*** that includes licences for MDG employees and is available on request.

All training is to be conducted in accordance with the ***Training Procedure P-QSE-008***.

6.3 Awareness

a) General

Workers will be made aware of this EMP including MDGs QSE Management System policies, procedures, site rules and other requirements through the site-specific induction, consultation and communication processes. Further awareness may be achieved by:

- Continuous improvement feedback
- Pre-start, toolbox & Meetings;
- Job Statements/descriptions
- Memorandums and incident reports
- Safety noticeboards
- Purchasing & Subcontractor Procedure
- Adhoc discussions
- Risk Assessments
- EWMS/SWMS , Work Instruction and SOPs
- QSE Alerts

Industrial issues will be managed in accordance with *MDG **Workplace Relations Policy C-HRM-001***. Where required a specific plan will be developed to meet NSW Government projects requirements.

b) Non-compliance to Safety Requirements

Subcontractors

Subcontractors will be made aware of the implications of not conforming safety and MDGs QSE Management System requirements through such mechanisms as issuing of non-conformances and performance discussions.

MDG Employees

MDG employees will be made aware of the implications of nonconforming with safety requirements through the company induction, and appropriate industrial instrument (EBA) requirements.

6.4 Communication, Consultation, Cooperation & Reporting

MDG will ensure meaningful and effective consultation and communication processes are established and maintained throughout the life of the project in accordance with the project Safety Management Plan (SMP) requirements. The following planned methods will be considered as part of the site consultation arrangements on environmental matters:

- Management meetings/coordination meetings monthly with stakeholders
- Site inductions, training, information and promotional sessions
- Environmental Alerts (QSE)
- Circulation/display of environmental information and other relevant documents
- Informal workplace interface meetings
- Environmental meetings – held as needed to discuss specific environmental issues and implications
- Site Environmental Inspection
- Project Start-Up, Client and Subcontractor meetings
- Daily Pre-Start & Toolbox meetings addressing relevant environmental risks
- Records and attendance records will be kept by the Environmental Representative
- Incident Exercises/spill response
- Inductions and Toolbox meetings if incident occurs
- Notices and signage
- Environmental Risk Assessment / SWMS / Work Instructions / SOPs

The following table represents the reporting & communication summary requirements during the life of the project.

Reporting & Communication	Frequency	Responsibility	Report To
Daily Prestart Meeting	Daily	Site Supervisor	N/A - Place on Noticeboard or sign-in area
Toolbox Meeting	Weekly	Project Manager	NA – File on site – Recent to be placed on Noticeboard or sign-in area
HSE Meeting	Quarterly (minimum) (where established or required)	Project Manager	QSE Manager & Place on Noticeboard or sign-in area
Injury Report	As occurs	Site Supervisor	Project Mgr. / QSE Mgr.
Incident Report	As occurs	Site Supervisor	Project Mgr. / QSE Mgr.
Investigation Form	As occurs	Site Supervisor / Investigator	Project Mgr. / QSE Mgr.
Monthly Statistics Report	Monthly (on 9th)	Site Supervisor	Project Mgr. / QSE Mgr.
Notifiable Incidents	As occurs	Project Manager / QSE Mgr.	Relevant authority / Project Director / Client
Emergency Debrief Record	After each emergency	Site Supervisor	QSE Manager
Waste & Resource Recovery Report	Monthly (or as requested)	Site Engineer	Client / QSE Mgr.

6.5 Documentation Management

6.5.1 Document Control

Revision Control

The Project Manager is responsible for ensuring the initial developed EMP (draft) is reviewed and given a starting version number (i.e. 001) at EMP approval. Any amendments or revisions to the EMP is to be given with the next version number series (e.g.002, 003 etc.) for the life of the project. Minor changes are acceptable as hand written.

Environmental Management Plan (EMP) Review

The EMP will be reviewed biannually (6 monthly) or upon change to the site environment or legislation. The Project Manager in consultation with Site Supervisor(s) and QSE Manager/Senior Management (where required) is responsible to develop and review the EMP. This EMP may be amended where deficiencies are identified, changes occur in MDGs QSE Management System or project works change and such that the information contained in the EMP is no longer accurate or valid. Those parties affected by any alterations or revisions shall be notified.

Distribution Control

Where controlled copies are used, controlled copies will be distributed to key workers prior to commencement of works, so that they are aware of the EMP contents and for retention purposes. Amendments to this EMP will be communicated to persons issued with controlled copies. Awareness of the contents of the EMP will be communicated during site inductions. The Project Manager or delegate is responsible for the distribution of revised versions or sections thereof to project site management.

Uncontrolled Copies

In the majority of occasions uncontrolled copies (latest version) will be distributed to key workers (or internal or external stakeholders) prior to commencement of works, so that they are aware of the EMP contents. Such copies will not be numbered nor kept up to date. Awareness of the contents of the EMP and amendments will be communicated during site inductions, Daily Pre-start/Toolbox Meetings. Uncontrolled copies will only be distributed on the authority of the Project Manager.

Environmental Management Plan (EMP) Approval

The EMP is to be reviewed by each person nominated on the covering page of this EMP and necessary amendments / revisions made prior to approval by the Project Manager. This EMP is to be written and developed prior to work commencing on site.

For further information refer to MDGs ***Document Control & Records Management Procedure P-QSE-001***.

6.5.2 Records Management

All relevant environmental records shall be maintained in a secure and orderly manner such that they remain legible, identifiable and traceable to the activity, product or services for which they were generated until the period for retention expires (as required by specific Australian Standards, WHS & Environmental legislation or MDGs QSE Management System requirements).

During the project, the project environmental records including all subsequent versions of the EMP are to be kept on site with the latest version, a copy is to be made available to workers carrying out work in connection with the EMP, be maintained and located in the Site Office until project completion.

At the end of the project records including this EMP will be archived for a period (minimum 7 years) in accordance with the ***Document Control & Records Management Procedure P-QSE-001***. Records will be retained in the English language.

Example of environmental records include (where generated):

- EMP and all revisions
- Contractors Environmental applicable procedures
- Records of management reviews
- Induction and training records
- Project Environmental Controls Map
- Records of work environmental controls
- Minutes of tender/contract reviews
- Register of Calibration and certificates
- Work Method Statements
- Environmental Checklist
- Waste disposal dockets
- Risk assessments
- Monitoring of subcontractor records
- Audit Reports
- Schedule of Inspection and Test Plans (where used)
- Records of any testing/analysis
- EPA Disposal receipts for Hazardous Materials
- Site Inspection Records
- Non-conformance and Corrective Action
- Complaint and Incident Reports
- Permits
- Contract information

Note: Health monitoring records will be retained for at least 30 years and where health monitoring is conducted in relation to asbestos records shall be retain for at least 40 years.

7. Environmental Control Sub Plans

7.1 Water Quality Management

The chances of contaminated water leaving site is relatively low. Rainwater and the water used for dust suppression will mainly be removed from site through evaporation and through the removal of demolition material from site.

Performance Objective(s)	• To ensure that all water entering and leaving site is controlled and the reuse of water is maximised
Treatment Strategies	**General:** • Water captured in the building or site will be used for dust suppression (where possible) • Approval to discharge or reuse water will be obtained before any discharge. PPE to be used in accordance with relevant SDS and SWMS where treatment is required • An on-site treatment process discharging to the storm water system will be implemented (where needed) • Where water is to be collected for reuse off-site, water is to be collected in portable tanks and after testing • All relevant stormwater drains, erosion control structures and containment areas will be maintained to ensure maximum efficiency • Site workers directly involved in water quality management will be given training in the operation and maintenance of the measures to be implemented • Where saw cutting works are undertaken in areas where runoff to stormwater may occur Geotech fabric and Geotech socks are to be in place before work commences and wet vac is operational before work commences • Water is to be prevented from entering site from boundaries e.g. run off from unconnected rainwater pipes etc. and to excavations to minimise dewatering requirements (where practical)
	Dewatering Procedure for Reuse on Site for Dust Suppression: • Obtain approval to reuse – Dewatering Permit completed and signed • Test/treat water for visible oil or grease and pH levels. Note: there is no requirement to test/treat for TSS • Ensure no erosion is caused from the discharge and runoff is controlled within the site boundary
	Dewatering Procedure to land or stormwater: • Obtain approval to discharge – Dewatering Permit completed and signed • Water must meet acceptable criteria prior to discharge • Water is to be tested for total suspended solids and PH every hour when pumping out to land - Regularly visually check pump out flow for turbidity • Discharge will by low energy pump. Flow from outlet must be directed onto a non-erodible surface or material and ensure no erosion occurs. The pump inlet must be placed so that it will not take sediment or sediment laden water • Any water discharged to stormwater drains, must be clean and free from any contaminants including, turbidity, litter, chemicals, oil and grease
	Water Quality Criteria for Discharge: • Before any water can be discharged in to the stormwater from sediment tank(s) the water must meet the following criteria (see also ***Dewatering Permit***) • Nata certified water test to ensure there are no contaminants • pH between 6.5-8.5 • Total Suspended Solids (TSS) <50mg/L • No visible oil or grease • PCBs - 0 mg/Kg • Heavy metals in accordance with ANZECC criteria (if suspected to contain elevated levels)

	Water Treatment:
	pH Levels:
	• If the water pH is above 8.5, hydrochloric acid is used to lower the pH:
	• A 500mL dose of acid typically lowers 7000L of water by a pH of approximately 1.5.
	• If the water pH is below 6.5, a base such as agricultural lime, with a pH of about 8.2, will be used to raise the pH
	Suspended Solids (TSS):
	• If the TSS of water is greater than 50 mg/L (or equivalent Turbidity, after establishing correlation) a flocculent will be used as follows:
	  • Treating water with flocculent (e.g. gypsum, liquid alum or flocculent blocks).
	  • The flocculent should be evenly applied and left until the sediment has time to settle out.
	  • Only environmentally safe flocculants will be used based on the Environmental Officer's review of SDS information.
	Hydrocarbons:
	• If an oily sheen is found on the surface of the water absorbent material from a spill kit will be used to absorb and skim off the sheen prior to discharge.

Responsibility	• Site Supervisor is responsible for ensuring installation and maintenance of controls • Site Supervisor / Environmental Representative will test the water (using proprietary and certified testing kit) against the above criteria and complete the Dewatering Permit • Site Supervisor / Environmental Representative will arrange samples to be sent to NATA credited laboratory • Environmental Representative is responsible for performing monitoring, conducting inspections, responding to incidents and authorising ***Dewatering Permit*** • All workers are responsible for reporting incidents
Performance Indicator	• Nil unauthorised discharge of water from the project • Nil inrush of water to site from boundary • Nil Infringement notices from regulator (e.g. EPA)
Monitoring	• Visually check the dewatering discharge point hourly for turbidity and PH (where used) • The tank system will be checked daily and maintained as necessary (where used) • Water treatment and testing equipment will be in 'as new' condition and the manufacturers recommended procedures will be followed in regards to maintenance • Daily visual inspection of site boundaries, excavations and controls • Weekly completion of ***Project Site Inspection Checklist***
Reporting	• All Incidents are to be reported to the Site Supervisor • Contact appropriate authorities including Client/EPA as required for Notifiable Incidents
Corrective Action	• Where results of testing are not within the criteria, treatment is to be conducted including retesting prior to discharge • Pumping is to be suspended and treatment provided until water quality criteria has been met. Once water quality criteria has been met, pumping may continue • Where water is identified as entering site, the source must be identified and prevention measures are to be installed e.g. diversions, blocking, capping, sealing • Where sheet water is identified as entering excavations a diversion system is be installed e.g. trough, gully etc. where practicable • System deficiencies to be recorded on ***Corrective Action Report***

7.2 Erosion and Sediment Control

As the site has very minimal ground exposure the risk of sediment leaving site is low.

Performance Objective(s)	• To prevent erosion and ensure that sediment laden water does not leave the site or contaminate stormwater or other waterways
Treatment Strategies	**General:** • Geotech fabric and Geotech Socks will be installed to all on-site pits and inlets and protection provided • Kerbside stormwater pits/sump drains will be protected with Geotech fabric and Geotech Socks or similar devices (where water is leaving site) • Sediment fencing will be installed to terrains (where identified, or required) • Site compounds, access tracks, stockpile sites and temporary work areas will be located so that disturbed areas are minimised. Disturbed areas will be stabilised ASAP • Stockpiling of material will cease in rainy conditions • Site workers directly involved in sediment and erosion control will be given training in the operation and maintenance of the measures to be implemented **Sediment and other material tracked from site:** • The loading of trucks shall take place on hardstand areas on site, where possible • A vehicle wheel wash or gravel pit or grid will be put in place near the egress point • Vehicles to have wheels inspected before leaving site • The hard stand area, loading point and egress point will be kept clean and swept regularly **Erosion of natural material:** • In the event that walls below ground level of the building(s) are natural material they will be visually monitored during construction, demolition or excavation works • In the event of excessive erosion temporary covers such as Soil Tackifier, bituminous spray or plastic/fabric sheeting will be placed over soil/stock pile/areas **Working near water bodies:** • A floating boom will be on standby and hydro-vac available to remove sediment laden water plume and sediment-laden water source (as required) **Working on the move (Mobile work):** • A set (Geotech Socks and filter sedimentation unit) will be laid out and taken up as site moves. Reset and cleaned out using appropriate methods – manually. Cleaning will be done when accumulated sediment has reduced the capacity of the structure by 30%, based on a visual assessment
Responsibility	• Site Supervisor is responsible for ensuring installation and maintenance of controls • Environmental Representative is responsible for performing monitoring, conducting inspections and responding to incidents • All workers are responsible for reporting incidents and maintaining controls
Performance Indicator	• Nil visible signs of sedimentation entering waterways or on roadways • Nil visible signs of erosion cause by our works
Monitoring	• Weekly completion of ***Project Site Inspection Checklist*** • Daily visual inspection of erosion and sediment controls
Reporting	• All Incidents are to be reported to the Site Supervisor
Corrective Action	• If any sedimentation appears on roads it will be cleaned with road sweeper or by the MDG workers • Where erosion or sediment controls become ineffective all workers are to take action to correct the risk • System deficiencies to be recorded on ***Corrective Action Report***

7.3 Air Quality

Demolition of brick and concrete structures can generate excessive amounts of dust. The following dust suppression measures will assist in keeping dust at minimal levels.

Performance Objective(s)	• Minimise air pollution from our work activities • Control and minimise the generation of dust on site and mitigate of dust off site • Minimise odour impacts caused by our works
Treatment Strategies	**Dust generated from demolition activities and material handling:** • Hand held hoses will be used to control dust at the source point and water managed to prevent run off • During the site induction workers will be made aware of the dust control requirements and where excessive dust is being generated they are to alert the Site Supervisor and they will investigate source of dust and alter the control measures in place • Dust control measures will be discussed during daily Pre-starts Meetings • Demolition materials are to be wet down prior to handling to minimise dust • If any demolition activity is to be undertaken and dust will be generated a water hose will be on standby to suppress any dust • Cutting/grinding of materials on site will be kept to a minimum but if these activities are required techniques and equipment will be used to minimise the dust generated • Mesh will be installed to scaffolding and fencing to minimise dust leaving site or work area • Main work areas to be cleaned and swept to eliminate any airborne dust **Dust generation from the use of the drop zone:** • Materials are to be wet down prior to being dropped down the drop zone • A water hose or sprinkler will be on standby for use at the bottom of the drop zone if dust is generated **Dust generated from material stock piles:** • Stockpiles of materials are to be kept wet or covered, as required **Dust generated during loading out of materials:** • Materials will be wet down prior to loading trucks **Dust generated during traffic movements:** • Trucks transporting materials on behalf of MDG such as clean fill, sand, soil, landscape materials and gravel will have covered loads, tailgates secured and material wet down • The speed of vehicles travelling on unsealed surfaces will be restricted **Vehicle and Plant emissions:** • All plant, vehicles and equipment will be properly maintained and serviced • Vehicles will be switched off when not in use • Plant and equipment checks will be conducted daily • Mufflers, plant and machinery will be in good working order • Equipment emitting visible smoke for longer than 10 seconds while operational on site will be assessed to determine if maintenance is required **Exposing contaminated soils releasing odours** • In the event of odours being released temporary covers such as Soil Tackifier, bituminous spray or plastic/fabric sheeting will be placed over soil/stock pile/areas at the end of the day or other measures determined by the Environmental Consultant

	General site Odours • The site will be cleaned daily. General food scraps will be placed in bins lined with plastic. Refuse will be removed off site daily back to our yard at St Peters and placed into larger rubbish bins. • The gas line will be terminated at the valve leading to the main. Gas will then be purged. • Air conditioners will have gas evacuated and removed prior to commencement. • Site personnel will alert management when there is an odour on site. Works will cease and the origin of the odour found and rectified. **Adverse weather conditions:** • All demolition material is be wet down • During high winds demolition methods will be modified or ceased • The weather forecast is to be checked daily prior to commencement of work • When strong winds are present additional dust suppression controls will implemented **Excessive dust generation:** • Additional dust suppression methods will be implemented such as but not limited to: sprinkler systems, additional hose and personnel, mist generators • If the additional dust suppression fails to stop the dust emission leaving the site, work in the area will cease and an alternate work method will be used to minimise dust **Dust generated from disturbed surfaces or excavations:** • Water spray will be utilised during excavation to reduce dust levels • Disturbed surfaces will be watered using water trucks or other methods to suppress dust • The area of exposed soil (land disturbance) will be restricted to a practicable minimum • Vegetation removal and topsoil stripping will be undertaken on a campaign basis, to reduce the area of exposed ground at any one time • Topsoil stripping will be avoided in periods of high winds • Progressive rehabilitation will occur as soon as practicable to minimise disturbed areas
Responsibility	• The Project Manager is responsible for ensuring that all workers are aware of their responsibilities for air quality and controls on site and engaging an Environmental Consultant • Site Supervisor is responsible for overseeing the effective implementation of the on-site air quality initiatives in consultation with the Project Manager • Environmental Representative is responsible for checking plant & equipment, site inspections, monitoring, training of workers in air quality and assisting the Site Supervisor with corrective actions • Workers are to ensure that dust suppression is applied to material and source points
Performance Indicator	• Nil Notifiable Incidents with emissions to air • Minimal complaint of nuisance dust received • Nil complaints of odours
Monitoring	• Daily visual inspection of work areas for air quality issues • Weekly completion of ***Project Site Inspection Checklist***
Reporting	• All incidents of excessive dust generation are to be reported to the Site Supervisor • Contact appropriate authorities including Client/EPA as required for Notifiable Incidents relating to emissions to air (gas, odour, fumes)
Corrective Action	• In the event of excessive dust outside the site boundary work will stop immediately and dust control methods will be modified to ensure dust emissions are minimised

	• For Emissions to Air – refer Emergency Response Plan • System deficiencies to be recorded on ***Corrective Action Report***

7.4 Noise and Vibration

<table>
<tr><td>Performance Objective(s)</td><td colspan="2">• Prevent excessive noise generated by truck and vehicle movements
• Minimise and control excessive generation of noise during works
• Minimise adverse effects of demolition on the amenity of nearby businesses, residents and other sensitive land users</td></tr>
<tr><td rowspan="3">Treatment Strategies</td><td colspan="2">• Conduct a Dilapidation Survey of properties having vibration sensitive equipment or facilities and post works (where identified)
• Assess likely noise levels prior to site work and respond to complaints accordingly
• Restrict reversing alarms of plant and vehicle to “quackers”
• Measure noise & vibration levels at site, as required
• Work and deliver during only approved construction hours (DA)
• Cover drop zone bases with material before use and cover upper level scaffolding deck
• Ensure plant and equipment is serviced and repaired
• Remove any machinery or equipment causing excess noise
• Use external walls to act as sound barrier, leaving in place until last during demolition
• Use larger type machines with hydraulic hammering for demolition where possible
• Break up slab and other items into smaller pieces to reduce vibrations from drop zone
• Conduct work in accordance with Demolition Work Plan</td></tr>
<tr><td colspan="2">Approved construction hours (DA)</td></tr>
<tr><td>Standard hours of work
• 7.00 am to 5.00pm, Monday to Fridays, inclusive;
• 7.00 to 3.00pm on Saturdays; and
• At no time on Sundays or public holidays</td><td>Noisy Work Hours
• 1 hr respite when noise / vibration exceeds limits set out Noise & Vibration Management Plan</td></tr>
<tr><td>Responsibility</td><td colspan="2">• Site Supervisor to ensure works are only performed during Approved Construction Hours and ensure corrective action is undertaken
• Environmental Representative to conduct inspections, monitoring (as required) and maintain Customer Complaints Register
• All workers responsible to report instances on excessive noise works</td></tr>
<tr><td>Performance Indicator</td><td colspan="2">• Nil Improvement Notices or Cessation of Works by authorities (e.g. EPA, Council)
• Minimal complaints received of excessive levels of noise</td></tr>
<tr><td>Monitoring</td><td colspan="2">• Hours of work are within DA requirements
• Customer Complaints Register to be monitored by Project Manager
• Monitoring of noise and vibration levels undertaken, where complaints received
• Weekly completion of Project Site Inspection Checklist</td></tr>
<tr><td>Reporting</td><td colspan="2">• Supply Dilapidation Surveys to interested parties
• Results of noise and vibration results to be provided to the Environmental Representative
• All Incidents are to be reported to the Site Supervisor
• Refer Complaints process</td></tr>
<tr><td>Corrective Action</td><td colspan="2">Where complaints occur:
• Conduct monitoring & identify source of noise/vibration exceedances to validate complaint
Minimise reoccurrence of complaints by consideration of other measures such as:
• Where practicable install noise barriers around noisy areas
• Modify or alter plant and equipment
• Avoid simultaneous use of two or more noisy plant items
• Provision of respite from noise intensive activities
• Alternate demolition methods or other negotiated outcomes with the affected community
• Limit times for certain demolition activities
• Increase the training of workers and the public to improve information about controlling noise and vibration impact
• System deficiencies to be recorded on Corrective Action Report</td></tr>
</table>

Image courtesy of Project Construction Noise and Vibration Management Plan (NVMP) Northrop Rev C 14th December 2018

Sensitive receivers are shown as noted in the diagram above. Those that are to be monitored during the demolition phase are as follows:

- Sydney Trails Tunnel - Vibration
- 1 Margret Street – Vibration & Noise (noise testing to be performed internally on regular basis at receiver street level)
- 118 Regent Street (St Luke's Presbyterian Church) Vibration & Noise (noise testing to be performed internally on regular basis at receiver street level)
- General Noise Testing performed internally various public areas.

7.5 Hazardous Chemicals

Performance Objective(s)	• To avoid contamination to land and water with the release of hazardous chemicals
Treatment Strategies	• All hazardous chemicals will be stored in appropriately bunded areas and away from stormwater drains and bodies of water • Refuelling mobile plant and equipment will be undertaken on designated hardstand areas or provided with temporary bunds or trays to contain spillages • A ***SDS Register*** and copy of SDS of all hazardous chemicals will be maintained on site • Spill kits will be available on site and at the refuelling area • Fire extinguishers shall be available at all times • No major servicing of plant will occur on site and plant requiring major servicing will be returned to the Workshop • A Chemical Risk Assessment will be conducted for all significant quantities of identified hazardous chemicals stored on site and controls implemented • Workers will be trained in the correct handling and disposal of chemicals and spill response procedures and location of spill kits
Responsibility	• Site Supervisor to ensure hazardous chemicals are managed in accordance with this EMP • Operators of plant are to ensure that plant is without leaks and refuelling activities are undertaken without spillages occurring and daily plant inspections conducted • All workers are responsible for ensuring spillage risks are minimised and all spillages are contained, cleaned up and reported • All workers are to comply with relevant SWMS, Work Instruction and SOP with chemical handling • Environmental Representative is responsible for maintaining the ***SDS Register*** • Environmental Representative is responsible for monitoring response to spills, reviewing spill incidents and conducting risk assessments
Performance Indicator	• Nil Notifiable Incidents to regulator (e.g. EPA)
Monitoring	• Daily visual inspection of chemical storage areas, equipment and controls • Weekly completion of ***Project Site Inspection Checklist*** • Completion of daily ***Plant Inspection Checklist***
Reporting	• All incidents are to be reported to the Site Supervisor • Spills which are determined to be Notifiable Incidents will be reported to the regulator
Corrective Action	• Where spillage has occurred the Emergency procedure to be implemented is to contain, removed and clean up spill • A review of the incident is to occur to prevent re-occurrence determined and methods reviewed, as required • System deficiencies to be recorded on ***Corrective Action Report***

7.6 Waste Management

Metropolitan Demolitions Group have undergone independent external certification to the Australian Green Building Council requirements and received verification against the Construction & Demolition Waste Reporting Criteria.

Metropolitan Demolitions Group is the 1st Demolition Contractor in Australia to be certified under this Green Star Criteria. In addition our Recycling Facility located in St Peters NSW has also received Green Star certification as a transporter, receiver, processor and recycler of C&D waste.

Performance Objective(s)	Manage waste and work activities in a manner which will: • Maximise waste reuse and recycling • Minimise waste to landfill and avoid waste generated from the site

Treatment Strategies	• Waste minimisation will be approached with the following principals of waste hierarchy : Avoid, Reduce, Reuse, Recycle & Disposal
	• All waste generated will be sorted and processed on site for:
	  ○ Recycling: concrete, brick, structural steel, ferrous and non-ferrous metals
	  ○ Reuse: timber, specific plant and equipment
	  ○ Disposal: plaster board ceilings/partitions, carpets (worn), worn doors, scrap timber, asbestos, SMF and general waste
	• Appropriate areas will be established and maintained throughout the project for placement and stock piling. These include:
	  ○ General waste bins for general waste (lunch rooms);
	  ○ Hazardous material waste bins/packages/areas;
	  ○ Ferrous/non-ferrous metals stock piles;
	  ○ Building raw material (concrete, timber, brick); and
	  ○ Land fill waste.
	• Contaminated soil/waste will be correctly classified by an Environmental Consultant prior to transport
	• Light weight rubbish is to be secured in bins to prevent becoming airborne and polluting site and external site areas. General waste bins will be maintained on site with a suitable regular empty program implemented
	• Waste water is to reused on site, where possible – Refer Water Quality Sub Plan
	• Sewage will be produced through the use of bathrooms in the site amenities. The site amenities will be connected to the sewer mains and managed accordingly. At a later stage if required existing amenity will be decommissioned and sewage will be produced through use of the portable bathrooms and portable site amenities
	• Workers are to ensure that safe access is available at all times to areas on site, that waste is placed/stored in approved areas and that overloading of areas does not occur
	• Workers and Operators will be trained during the site induction to highlight waste management practices on site and to achieve EMP objectives.

Waste & Resource Recovery Plan - *materials will be treated in the following manner*:

Waste Type	Estimated Amount	Requirement
Concrete / Brick (Rubble)	2113 Tonne	Recycled - Taken to Metropolitan Demolitions & Recycling (MDR) Facility at St Peters (Lic No. 11483) NSW where it will be processed as road base
Scrap Metal / Structural Steel (Metals)	130 Tonne	Recycled - Taken to Sell & Parker Pty Ltd scrap metal yard at 19a Baker Street, Botany NSW for recycling; or Reuse - Taken to MDR Yard at St Peters NSW where it will be processed and sold as second-hand materials
Asbestos	0 Tonne	Landfill – Taken to Sita Environmental for disposal & reported to EPA (via "Wastelocate" by asbestos removal contractor)
General Waste (Rubbish)	100 Tonne	Landfill – Taken to Bingo Waste Services
Excavated Material	0 Tonne	Classified as clean and reused either on site or taken to nominated party
Plant, equipment & other		Reuse - Taken to MDR Yard at St Peters NSW where it will be processed and sold as second-hand materials
Timber		Reuse - Taken to MDR Yard at St Peters NSW where it will be de-nailed and sold as second-hand materials
Fuel, chemicals, grease, lubricants etc.		Recycled – Removed from site by licensed contractor - Remondis Pty Ltd
Other:		

Waste & Resource Recovery Summary

Waste Type	Estimated Amount	Estimated %
Re use & Recycling	2243 t	96.14 %
Disposal	90 t	3.86 %
Total	**2333 t**	**100 %**

Responsibility

- Project Manager has overall responsibility for the implementation of this Waste Management Sub-Plan including corrective action and engaging Environmental Consultant (as required)
- Site Supervisor is responsible for overseeing the effective implementation of the on-site waste management initiatives in consultation with the Project Manager
- Environmental Representative is responsible for site inspections, monitoring, training of workers in waste management initiatives, compiling the ***Waste & Resource Recovery Report*** (where requested) and assisting the Site Supervisor with corrective actions
- Workers are to ensure that waste are separated and placed in accordance with this EMP
- Operators are to ensure waste is appropriately separated during load-out
- Workers are to report all incidents including litter issues at site boundaries
- Asbestos Removal Supervisor to ensure asbestos waste is reported to the EPA via "Wastelocate", all waste (including other hazardous materials) is sent to a EPA license facility/landfill, copies of waste dockets are sent to MDG

Performance Indicator	• Nil complaints relating to waste management • Waste is sorted into required types and stock piled without increasing floor loadings • Quantity of waste disposed to land is minimised <10% • Quantity of waste recycled is 90%> • Light weight rubbish is secured in bins • Waste dockets and information of waste disposal are available for all waste transported off site
Monitoring	• Routine inspections of waste stock piling areas • Inspection of load-out and trucks • Record movements of trucks and waste using the ***Truck Run Sheet*** (as required) • Weekly completion of ***Project Site Inspection Checklist*** • Review of quantities of waste removed from site against Waste Recovery Plan projections
Reporting	The following records will obtained for amount, type and destination of waste materials throughout the life of the project: • Dockets from approved receiving/removal facilities/bodies/contractors; • Resource recovery accurate statistical information will be recorded and compiled by the Site Engineer using the ***Waste & Resource Recovery Report*** • Records and Waste & Resource Recovery Report will be provided to interested parties on request • All Incidents are to be reported to the Site Supervisor
Corrective Action	• Where waste stock pile areas have obstructed access/egress, works are to cease until adequate access/egress is provided. Involved workers/Operators are to be retrained in access/egress requirements • Where waste stock piles may increase risk of floor loadings works are to cease and redistribution or load-out of waste to be undertaken to reduce the risk. Involved workers/Operators are to be retrained in floor loadings and stock piling requirements • Where specific quantities of recyclable waste is observed to be mixed with waste for disposal at a licensed landfill, the nominated recyclable waste is to be separated prior to load-out and placed in its correct area. Involved workers/Operators are to be retrained in separation of waste requirements • Where litter has been trapped/collected in boundary fences, works are to cease and litter removed • System deficiencies to be recorded on ***Corrective Action Report***

7.7 Heritage & Artefact Items

Performance Objective(s)	• Minimise impact on surrounding heritage structures during demolition works • Protect unexpected cultural and heritage and historic items/sites should they be encountered • To ensure no damage is caused to items of cultural or heritage significance as a result of works
Treatment Strategies	• Dilapidation Survey to be conducted where surrounding historic heritage structures (where identified or required) • Works will be conducted to minimise impact on nearby identified structures in accordance with relevant Heritage and Artefact Management Plans • Works will be conducted in accordance with supplied surveys and requirements where heritage and artefacts are known to be on site (as agreed) • Spoil will be monitored during excavations and lifting of concrete slabs for artefacts • Training will be provided to workers during the site induction to highlight the identified heritage structures and that artefacts are not to be moved, disturbed or destroyed
Responsibility	• Site Supervisor to monitor works and implement corrective actions, as required • Operators of machinery to monitor spoil and report incidents • Workers are to report all incidents including litter issues at site boundaries
Performance Indicator	• NIL instances of unauthorised damage or disturbance to heritage or artefact items
Monitoring	• Routine inspections to ensure adequate housekeeping is maintained • Trenches and excavations to be checked for trapped fauna • Weekly completion of ***Project Site Inspection Checklist***
Reporting	• All workers to report incidents to the Site Supervisor • All Incidents will be communicated to the Client and regulatory authorities (e.g. OEH)
Corrective Action	**Heritage impact:** • Works will cease in the impact area • Work methods for the impact area will be modified and monitoring of area whilst works are taking place in the area will be conducted • A strategy for reinstating/repairing damage to historic heritage items and to protect it against further damage will be developed (including engagement of heritage architect) • Consultation with Client and regulatory authorities (e.g. OEH) **Artefact / unexpected find:** • Works will cease in the impact area • Consultation with Client and regulatory authorities (e.g. OEH & Council) • Qualified archaeologist shall be engaged to survey • Pending advice from Council and Heritage Office and excavation permit will be obtained under the *Heritage Act, 1977* to allow destruction or removal is likely to be required

7.8 Flora and Fauna

Performance Objective(s)	• To avoid damage or disturbance of flora and fauna on site
Treatment Strategies	• Vegetation clearing only to construction requirements (where relevant) • Vehicle and plant movements will be restricted to designated areas only • Protection to be provided to trees (where identified) • Trees for removal are to be identified with tie ribbon or marked with an 'X' • Tree/vegetation removal to be undertaken by a competent person and trees processed into mulch (where practicable) • No material will be stored near or under tree canopy areas • Trimming or pruning of trees are to be approved by the relevant authority or Client • Areas to be preserved are to be demarcated or have barriers installed • Workers will be trained during inductions in the areas of preservation and non-disturbance of flora and fauna for the site
Responsibility	• The Project Manager is responsible for ensuring that all workers are aware of their responsibilities to conserve the flora and fauna and controls for the project site • Site Supervisor to ensure areas to be preserved are demarcated including vehicle and plant movement areas and marking of trees for removal in accordance with Tree Removal Plan • Environmental Representative to conduct monitoring and inspections, maintain demarcated areas and assisting the Site Supervisor with corrective actions • Workers to only work within demarcated areas
Performance Indicator	• Nil instances of unauthorised disturbance of flora and fauna • NIL instances of unapproved damage or disturbance to flora and fauna
Monitoring	• Daily visual monitoring • Weekly completion of ***Project Site Inspection Checklist***
Reporting	• All workers to report incidents to Site Supervisor • WIRES (Phone: 1300 094 737) to be contacted where fauna is disturbed – Refer Project Emergency Response Contacts List • All Incidents are to be reported to the Site Supervisor
Corrective Action	• Disturbed areas are to be wet down and workers are to be retrained in preservation and non-disturbance areas • Barriers or demarcations are to be reinstated where damage has occurred • Unexpected finds of fauna infestation – works are to cease, access restricted to the area and a relevant Environmental Specialist is to be contacted to provide recommendations for treatment • Damage to protected flora or fauna – works are to cease, access restricted to the area, client or council contacted and WIRES – Refer Project Emergency Response Contacts List • System deficiencies to be recorded on ***Corrective Action Report***

8. Performance Evaluation

8.1 Inspections, Monitoring & Measurement

8.1.1 Inspections

All workers on site are required to monitor work activities in accordance with their site specific environmental documentation and the requirements of this EMP.

All inspection and monitoring activities will be conducted in accordance with the ***Inspection, Testing and Calibration Procedure P-QSE-011*.**

The below table summarises the inspections and monitoring activities that will be undertaken on site:

Site/Activity Inspections	Frequency	By Whom	Form
Project Site Inspection Checklist	Weekly	Site Supervisor / Environmental Representative	F-QSE-011.B
Dewatering Permit	As Required	Environmental Representative	F-QSE-006.C
Inspection Test Plans (ITPs)	As Required	Site Supervisor	F-QSE-011.D
Plant Inspection Checklist	Daily	Operators	F-QSE-011.E
Truck Run Sheet	As Required	Environmental Representative	F-QSE-033.A
Emergency Preparedness Inspections	At Project Start then TBA At least 12 monthly	Competent Person	Specific Report
Monitoring Equipment	Manufacturers requirements	Specialist / Environmental Representative	Calibration Certificate
Monthly Statistics Report	Monthly	Site Supervisor	F-QSE-002.A

Subcontractors are responsible for inspection of their own areas of control and equipment used. This will be monitored and checked by MDG Supervisors. Subcontractors will also be requested to attend and participate in Weekly Site Inspections.

8.1.2 Workplace Monitoring

Work environments requiring monitoring on this project include:

Type of Monitoring	Applicable (Yes / No)	Situation / Trade or Stage of Works	Comment
Air Monitoring / Asbestos	Yes	Removal Works	Undertaken as required
Dust	Yes	During Demolition/Excavation	Regularly monitored
Atmospheric / Oxygen / Gas Detection	No	Confined space entry	As per Confined Space Permit
Noise / Vibration	Yes	During Demolition/Excavation	Undertaken as required

8.1.3 Performance Measurement

A project specific statistical report shall be completed monthly and communicated to MDG for analysis and review.

The details will be recorded using the ***Monthly Statistics Report*** which:

- Monitor performance against objectives and targets;
- Is reviewed by senior management at Management Review Meetings; and
- Is communicated to site personnel.

8.2 Audits

An environmental auditing programme has been developed for MDG which includes projects and consists of:

- Internal systems audits focusing on those sections of the EMP that are relevant to current operations;
- Subcontractor/supplier compliance audits for major subcontractor packages;
- External audits conducted by the Clients representatives or other interested party (e.g. FSC, ISO, etc.) where known.

Generally an opening meeting will be conducted to outline the scope of the audit and a closing meeting to summarise the audit findings. The audit may involve reviewing documentation and evidence of implementation including discussions with workers and management where required.

Where internal/external auditors attend site MDG workers are to assist and provide all necessary information and assistance where required.

Audit Reports/actions will be communicated to the site management, QSE Manager, Project Manager and MDG senior management and relevant party involved, as required.

Results of audits will be raised with the Responsible Manager and reported to the Project Manager. Where non-conformances or system deficiencies are identified Corrective Action Report(s) or audit findings will be raised to track close out.

MDG audits will be conducted internally (by trained internal auditors) and externally (by third party auditors) in conjunction with MDG on-going auditing program.

Refer to ***Internal Auditing Procedure P-QSE-015*.**

8.3 EMP Review

Periodic assessments and reviews of this EMP will be conducted by the project management personnel where identified or biannually (6 monthly).

Reviews may include the Project Manager, QSE Manager, Operations Manager or Director and other nominated persons with consideration of the following:

- Changing client needs;
- Changes in internal/external issues (e.g. Legislation, risks, aspects etc.);
- Results of Internal/external/compliance audit results;
- Interested party feedback;
- Status of corrective and preventative actions;
- Results of Site inspection, task observations etc.;
- Outcomes of incident and near miss investigations;
- Project performance data (Monthly Statistical Reports);
- Performance indicators; and
- Any concerns which have been expressed by relevant parties.

The Project Manager will identify and analyse trends from collected safety data and implement required corrective and preventative actions to rectify any issues / adverse trends on site.

9. Improvement

9.1 Incidents

9.1.1 Incident Reporting

The ***Incident Report*** form is to be used to record details of the following significant environmental event types (incidents):

- Emissions to air;
- Discharge to Land or Water;
- Damage to protected Flora and Fauna;
- Complaint from public/client; and
- Other environmental hazards that cannot be address immediately.

All significant environmental incidents are to be documented and reported immediately to the Site Supervisor. The Site Supervisor is responsible for addressing initial actions to prevent possible reoccurrence. Records of incidents shall be retained on site and will form the basis of the Incident Register. A copy of the incident report is to be sent to the Project Manager/QSE Manager.

The ***Injury Report*** is to be used to record all workplace injuries.

All incidents & investigations will be conducted in accordance with the ***Incidents & Non-conformance Procedure P-QSE-012***.

9.1.2 Incident Investigation

A formal documented investigation using the ***Investigation Report*** form will be required for:

- Any notifiable incident resulting in a significant release to land, air, and water or that had the potential to incur a penalty for the relevant authority;
- Environmental incidents that had the potential to incur a penalty for the relevant authority;
- An incident is rated as 13 or above; or when
- Requested by the Project Manager or QSE Manager.

The Investigators for the project site may include Site Supervisors, Project Manager, HSR, Safety nominated person, Senior Management or QSE Manager who have received appropriate training.

The Project Manager will review all Incident and Investigation Reports to verify that corrective and preventive actions resulting from incident investigations (documented process within the related forms include actions, responsibilities, and timeframes), are appropriate, track closure and are signed-off.

Information about on site incidents, lessons learnt and similar operations to prevent reoccurrence is to be provided to the workers during Pre-start/Toolbox Meetings.

The investigation will be recorded using the ***Investigation Report***, shall be retained on site and distributed to the QSE Manager for review and filing. Incident and investigation reports will be retained for a period of 7 years.

9.1.3 Incidents to be notified to the Regulator

The Project Manager in consultation with the QSE Manager is responsible for notifying the regulator (EPA) on the occurrence of a Notifiable Incident, ensuring appropriate steps are taken including following the EPA protocol for pollution incidents and other authority requirements (e.g. SafeWork NSW).

Any occurrence involving a Notifiable Incident is to be cordoned off with the area not disturbed until an investigation is undertaken or otherwise determined by the Director/Operations Manager/QSE Manager or regulator authority. Incidents of this nature are to be documented using internal ***Reporting Incidents to Authorities Record***.

9.2 Non-Conformances & Corrective Action

The need for corrective and preventive action may be initiated following:

- A audit(s);
- A site inspection, e.g. plant, worksite;
- An Incident Report or an Investigation Report;
- An Inspection, testing, repair and maintenance reports;
- Task Observation/monitoring;
- Issues raised at Pre-start/Toolbox meetings, project meetings or by Environmental Representative;
- Complaints;
- Changes to procedures, processes, systems or documentation;
- Legislative change;
- Adverse trends;
- Regulator enforcement activities such as Improvement Notice, Prohibition Notice or Infringement Notice; or
- Management reviews.

Generally, corrective action (non-conformances) will be dealt with, in the case of inspection, audit or investigation at that time and by using the documents associated with each of these processes. However, where a corrective and preventative action is identified, is substantiated and relates to a system or systemic issue or an issue cannot be immediately rectified a ***Corrective Action Report*** is to be raised. The Corrective Action Report (CAR) will document the agreed actions, responsibilities and timeframes for addressing the non-compliance.

Completing corrective action report (CAR) form and forwarding it to the Project Manager who will ensure it is registered in the ***Action Tracking Register*** and tracked to ensure close out. All CARs are to be followed up to ensure close out this may include re-inspection of the work, area or item before close out.

The Project Manager will initiate corrective action of any non-conformance found by the inspections and audits and ensure CARs are signed-off and closed out as soon as practicable.

Non-conformances of a serious nature are to be closed out immediately – where actions cannot be closed they are to be monitored closely.

All corrective and preventative actions will be conducted in accordance with MDG ***Incidents & Non-conformances Procedure P-QSE-012***.

9.3 Continual Improvement

MDG will continually improve its suitability, adequacy and effectiveness of the EMP. This review will include:

- Corrective actions implemented are effective;
- Corrective actions can be extended to other operational activities (where relative);
- Lessons learnt from root causes are extended to other operational activities (where relative);
- Implement additional corrective and preventative actions as required for improvement.

Corrective actions will be undertaken in the event of a complaint or incident and based on the results of monitoring and auditing.

Appendix A – Forms

The following key environmental forms are used as part of this EMP and can be accessed via MDG share (Q) drive:

- Project Environmental Controls Map F-QSE-003.G
- Project Risk Assessment F-QSE-005.B
- Dewatering Permit F-QSE-006.C
- Waste & Resource Recovery Report F-QSE-006.B
- Customer Complaints Register F-QSE-007.A
- Truck Run Sheet F-QSE-033.A

Appendix B – Project Environmental Controls Map

To be provided