



ENVIRONMENTAL MANAGEMENT PLAN

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Controlled Document			
	Department of Environment, Parks and Water Security		
Project number	Application for environment protection licence		
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Authorised signature			
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1. ENVIRONMENT POLICY

SITE ENVIRONMENTAL POLICY

1. COMPANY DETAILS

Officer/supervisor name:	Harry Vavlas	Contact number: 08 8944 6206
Date of issue:	01/10/2022	Date of review: 01/10/2023

2. INTRODUCTION

QPBC has developed the following policy to create a safe and healthy workplace(s). This policy outlines the rules, responsibilities and procedures for environmental protection.

3. SCOPE

This policy applies across the organisation of QPBC and across all workplaces/worksites under this organisations control, including contractors/sub-contractors and visitors to the workplace/worksites. QPBC will continually improve our environmental performance, prevent environmental harm associated with our activities, develop employee environmental awareness, report on environmental performance and minimise waste.

4. RULES

- Wherever practicable employees at QPBC will reduce the volume of waste generated and reuse and recycle. Whenever possible new products and supplies should be reusable and/or recyclable;
- Where possible purchase responsibly for example purchase local products to reduce transport emissions and support the local community, be aware of where the product or its raw components have come from – is it causing deforestation, loss of habitat or exploiting workers in another country;
- Prevent any actions from work activities causing environmental damage by following preventative procedures. In the event of an incident/accident follow the emergency procedures, making sure that the appropriate equipment is available for clean-up and that a quick response is applied to eliminate or reduce any damage; and
- Be aware of environmental issues and safeguards, including erosion and sediment control, weed invasion, sensitive/rare vegetation and fauna, air quality, noise, waste, heritage and archaeological sites.

5. RESPONSIBILITIES

Officers and Supervisors must:

- Implement and review this policy;
- Consult with workers about this policy;
- Provide resources, information, training and supervision for workers to allow them to adhere to the rules and have the knowledge and resources to follow the procedures and understand their roles and responsibilities;
- Comply with statutory requirements, codes, standards and guidelines;
- Implement and comply with site Environmental Management Plans (EMP);
- Make sure all equipment is serviced and not showing visible emissions;
- Make sure noise and air pollution are monitored and kept to the appropriate levels;

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- Provide areas for chemical storage and hosing down;
- Make sure all incidents are investigated and if required appropriate disciplinary action carried out; and
- Undertake site environmental inspections using the *Site Environmental Inspection Checklist* and enter applicable waste details using the *Waste Management Plan* when required.

Workers must:

- Comply with the rules of this policy and follow environmental procedures;
- Not act in a manner that places the environment at risk;
- Use, store and dispose of chemicals as per the Safety Data Sheet (SDS);
- Remove waste from the workplace / worksite and place in designated waste areas;
- Reduce the damage to flora and fauna;
- Wash machinery in designated area;
- Make sure correct measures are in place for sediment control;
- Report any incidents or complaints to the officer / supervisor;
- Participate in consultation and training in relation to environmental management; and
- Advise officer or supervisor of any potential breaches of plans or statements, and sightings of rare plants or animals, fauna or archaeological or heritage items.

6. SIGN OFF

Company Representative:

Signed: Stavros Kantros **Date:** 01/10/2022

Name: Stavros Kantros **Position:** Chief Executive Officer

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2. BACKGROUND

2.1. Introduction

This EMP details how the environmental management requirements for T21-2387A – Darwin Region – Contract for Repairs and Maintenance on Public and Social Housing Assets for a Period of 24 Months will be implemented and managed on site by Quality Plumbing & Building Contractors Pty Ltd (QPBC).

The aim of the EMP is to ensure compliance with environmental legislation and that environmental risks associated with the project are properly managed.

2.2. Project Description

The delivery of “as and when required” responsive repairs, and minor new works programs to occupied and vacant dwelling assets owned by and/or leased by the Department of Territory Families, Housing and Communities within Zone 1 – Darwin.

QPBC will provide twenty-four hours a day; seven days a week telephone contact and availability of labour to deploy to the Works.

QPBC will provide and maintain an established office and workshop facility located at 37 Fowlestone Road, Tivendale. The facility will include the following:

- An approved workshop with equipment and capabilities sufficient to carry out work as requested under the Contract
- An approved office space with sufficient personnel necessary to take, record or pass on any emergency message that may be received, provide day to day information with regard to prices availability and delivery and be sufficiently qualified to process and forward invoices for work carried out.

QPBC will provide all general and specialised equipment, tools and materials to carry out and test the Work and will be fully equipped on each attendance call.

QPBC will provide and maintain sufficient persons to perform the Works, including:

- Qualified tradespeople, trades assistants and apprentices
- Mobile technology enabling direct and prompt contract between Contract Managers and Site supervisors/tradespeople
- Fleet of vehicles equipped and readily available
- Secure facility for storage of appliances and other goods to ensure response times can be met

2.3. Key associated environmental risks

QPBC identified the following key associated environmental risks to be addressed to in the Environmental Management Plan:

- pollution
- cultural heritage
- waste management
- site contamination – hazardous chemicals, asbestos
- weeds on-site
- soil erosion
- noise

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3. CEMP OBJECTIVES

3.1. Objectives

QPBC Environmental Management System is based on ISO 14001 – International Standard that specifies requirements for an effective environmental management system.

This EMP sets out a framework for the management of environmental obligations and issues for the Project.

All subcontractors to QPBC will be required to develop their EMPs which satisfy all relevant requirement of this EMP and obligations under law and operate fully under this EMP.

The objectives of QPBC EMP are:

- capture the environmental issues associated with the Project
- minimise damage to the environment caused by the project by developing environmental mitigation measures
- incorporate the environmental mitigation measures identified into a comprehensive framework to facilitate and ensure their appropriate management through all the stages of the Project; and
- to monitor the project's environmental impact.
- comply with Department of Infrastructure Planning & Logistics (DIPL) environmental guidelines and requirements;
- to comply with applicable environmental legislation;

All personnel, subcontractors and consultants will be made familiar with the QPBC environmental objectives and all activities will be undertaken in accordance with this EMP.

3.2. Preparation and Review of the Environmental Management Plan

This EMP has been prepared using the following methods:

- Review of Project Documentation including the following:
 - Draft Project Risk Register; and
 - Reference Documents and Legal Requirements
- Review of project activities
- Undertaking a risk assessment of proposed works; and
- Documentation of control measures required to manage the identified risks

3.3. Revision

This EMP will be reviewed and amendments made if:

- There are relevant changes to environmental conditions or generally accepted environmental management practices; or
- New or previously unidentified environmental risks are identified; or
- Information from the project monitoring and surveillance methods indicate that current control measure require amendment to be effective; or
- There are changes to environmental legislation that are relevant to the project; or
- There is a request made by a relevant regulatory authority.

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This EMP will be reviewed and amended, if necessary, at least once a year during the Project to determine the suitability and effectiveness of the current control measures.

4. ENVIRONMENTAL MANAGEMENT STRUCTURE AND RESPONSIBILITY

The principal responsibilities of QPBC workers with respect to the environment are described below. The management structure is set out in the following diagram. A matrix of specific site responsibilities is set out in **Table 4.1** below.

Project Manager

The Project Manager is responsible for promoting and maintaining good environmental management. The Project Manager is to ensure that this EMP is effectively implemented. The Project Manager is required to support the Site Supervisor and hold them accountable for their specific responsibilities. The Project Manager is responsible for taking prompt remedial action to eliminate any non-compliance or environmentally risky conditions.

Site Supervisor

The Site Supervisor is responsible for inducting all workers and subcontractors and directing site activities in accordance with this EMP.

The Site Supervisor is responsible for taking all practical measures to ensure the site is operating according to this EMP, and without risks to the environment. The Site Supervisor is responsible for detecting any non-compliance or environmentally risky conditions. If the Site Supervisor does not have the necessary authority to fix a problem, they are responsible for reporting the matter promptly and recommending remedial action to the Project Manager.

Workers

All workers are required to attend site inductions and follow this EMP. Workers are responsible for advising the Site Supervisor of any potential environmental issues.

Subcontractors

All subcontractors engaged to perform work for QPBC are required, as part of their contract, to comply with this EMP and to comply with directions from the company’s designated officers. Failure to comply will be considered a breach of the contract and sufficient grounds for termination of the contract.

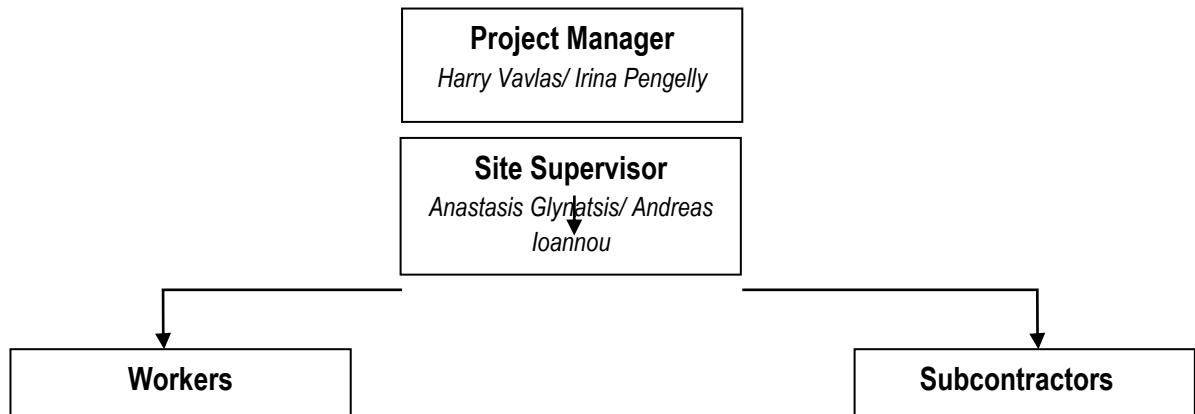


Table 4.1 Project Environmental Roles & Responsibilities Matrix

TASK	Project Manager	Site Supervisor	Workers	Subcontractors
Inducting workers and subcontractors and directing site activities in accordance with the EMP.	2	1	2	2
Identifying, assessing and eliminating any non-compliance or environmentally risky conditions and documenting the risk controls implemented.	1	1	2	2
Promoting and maintaining good environmental management in accordance with the relevant environmental legislation, regulations and laws.	1	1	2	2
Implementing practical measures to ensure the site complies with the EMP and project specifications	2	1	2	2
Maintaining, providing updates and supplying this EMP to relevant authorities and workers.	1	2	2	2
Monitoring and assessing subcontractors for the project to ensure environmental regulations are met and relate to the works undertaken	1	2	2	2
Maintaining stocks for environmental control	1	1	2	1
Provide and maintain a hazardous substances register for hazardous substances used and stored in the workplace;	1	1	2	2

1 = has responsibility for the overall implementation and / or management of the process/procedure on the project
 2 = has responsibility for complying with the process/procedure on the project

5. LEGISLATION, REGULATIONS AND STANDARDS

Compliance with legal obligations is an integral component to successfully delivering the Projects. QPBC aims to implement all possible mitigation measures to control environmental hazards relevant to the Project. This includes compliance with all relevant environmental legal requirements and best-practice guidelines. Following is an indicative list of key organizational legislation and guidelines that may be applicable to this Project.

5.1. Northern Territory Legislation

- Building Act 1993
- Dangerous Goods Act 1998
- Environmental Assessment Act 1982
- Environmental Offences and Penalties Act 1996
- Heritage Act 2011
- Soil Conservation and Land Utilisation Act 1969
- Transportation of Dangerous Goods by Road and Rail (National Uniform Legislation) Act 2010
- Waste Management and Pollution Control Act 1998
- Water Act 1992
- Weeds Management Act 2001
- Work Health and Safety (National Uniform Legislation) Act 2011

5.2. Northern Territory Regulations

- Building Regulations
- Dangerous Goods Regulations
- Environmental Offences and Penalties Regulations
- Heritage Regulations
- Transportation of Dangerous Goods by Road and Rail (National Uniform Legislation) Regulations
- Waste Management and Pollution Control (Administration) Regulations
- Water Regulations
- Weeds Management Regulations
- Work Health and Safety (National Uniform Legislation) Regulations

5.3. Federal Legislation

- Aboriginal and Torres Strait Islander Heritage Protection Act 1984
- Environment Protection and Biodiversity Conservation Act 1999

5.4. Federal Regulations

- Aboriginal and Torres Strait Islander Heritage Protection Regulations
- Environment Protection and Biodiversity Conservation Regulations

5.5. Australian Standards

- AS/NZS/ISO 14001 Environmental management systems - Requirements with guidance for use
- AS 2187.2 Explosives – Storage and use – Use of explosives
- AS 1940 – 2004 The storage and handling of flammable and combustible liquids
- AS1692 – 2006 Steel tanks for flammable and combustible liquids
- AS 2436 Guide to Noise and Vibration Control on Construction, Maintenance and Demolition Sites

5.6. Other Standards

- The Australian Dangerous Goods Code Edition 7.4

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- Environmental Noise Management Manual
- NT EPA – Prevent Pollution from Building Sites
- NT WorkSafe – How to Safely remove asbestos – Code of Practice

6. APPROVALS, LICENSING AND PERMITS

Licences, permits and approvals required for this project are summarised in **Table 6.1** below. QPBC will ensure that any licences, permits and approvals are obtained prior to work commencing. A copy of all licences, permits and approvals are included in **Attachment 1** of this EMP.

Table 6.1 Summary of Licences, permits and approvals

Regulatory Authority	Licence / Permit / Approval Type	Status	Summary of Key Conditions and Monitoring Required
NT EPA	EPL 224	Current	Collection and transport of listed waste on a commercial or fee for service basis through out the Top End for Local and Territory Government Agencies

7. COMMUNITY CONSULTATION AND COMPLAINTS HANDLING

7.1. Communication

Effective communication between all levels of QPBC management, personnel, subcontractors and external parties is of paramount importance to the implementation and maintenance of this EMP.

7.2. Internal communication

Internal communication of environmental performance and incident related issues will be achieved via:

- Weekly management meetings, with Environmental Management as an agenda item
- Monthly project reports
- ‘Toolbox’ talks focusing on environmental management awareness and other related issues for all site staff
- Pre-shift meetings covering the works for the day and any environmental issues that require special consideration
- Site notice boards, on which items such as the Environmental Policy are located
- Formal memos and notices issued to staff as required and detailing any changes to site procedures and methods.

7.3. External communication

QPBC will notify local residents and businesses, including Aboriginal communities, about new or changed construction activities which will affect access to their properties or otherwise significantly disrupt residents or occupiers use of their premises.

Project manager is responsible for undertaking community consultation.

To minimise impacts on the public by the project, residents and adjacent property owners will be notified in writing at least 5 working days before the works commence and at appropriate stages during the project. The letter will contain the following details:

- The nature of the work
- Why it is necessary
- The expected duration
- Changed to arrangement for traffic or property access
- The name and 24-hour contact telephone number of QPBC representative who can respond to resident concerns

The Project Manager will seek permission if there is any need to access private property.

Project Signage will be erected at the site if possible.

QPBC will undertake external and on-site communication in case of environmental incidents and emergencies, including communication with subcontractors. External communication will include informing nearby residents of proposed work, incidents and emergencies and contacting regulatory agencies if required.

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7.4. Complaints

Community groups, clients, interested parties, etc may advise of practices, activities and processes that are related to the environment by a variety of methods. These may include a non-conformance report, fax/letter, telephone complaint, newspaper/magazine report and verbal protest.

On receipt of a complaint, the person receiving the complaint will notify the Project Manager and the complaint will be recorded using the *Environmental Complaint Form* (see **Attachment 2**). The Project Manager will follow up the complaint and take corrective action as required.

A register of all such complaints will be maintained, together with the following records:

- Date and time of complaint
- The method by which the complaint was made (telephone, letter, meeting, etc.)
- Name, address, contact telephone number of complainant (if no such details were provided, a note to that effect)
- Details of complaint
- Action taken in response including follow up contact with the complainant
- Any monitoring to confirm that the complaint has been satisfactorily resolved
- If no action was taken, the reasons why no action was taken.

All complaints received will be acknowledged within 2 hours. Within 1 working day of receiving a complaint about any environmental issue, including pollution, QPBC will supply a written report to the DIPL Superintendent detailing the complaint and action take to alleviate the problem. Wherever possible, mitigation measures will be implemented, and every attempt made to resolve issue to the satisfaction of the complainant.

Where required to do so under legal obligation, relevant administering authorities will be notified of incidents in the manner prescribed by the applicable permit or statute.

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8. NON-CONFORMANCE

At QPBC, we are committed to identifying and selecting opportunities for improvement when they arise. Our company will implement necessary actions to improve our Environmental Management System further to meet regulatory, internal and other external requirements.

To meet and exceed our expectations, we will:

- improve our EMS and research future needs and expectations of the wider community;
- correct, prevent or reduce and mitigate undesired environmental effects of our undertakings; and
- improve the operation and implementation of our EMS.

Table 8.1 Responsibilities

Staff Member	Duties
Environmental Representative	Manage the effective implementation of the procedure and close-out of non-conformances raised in relation to the EMP. Regularly review the non-conformance report register
Auditors	Identify environmental non-conformances and complete non-conformance report forms, as required
All QPBC staff	Ensure completion of any corrective or preventive actions identified as a result of an audit, inspection or third-party complaint

8.1. Identification of non-conformances

Non-conformances, in whatever situations they are observed, may be divided into two types:

- major non-conformances - a non-conformance which requires large scale corrective action to ensure sound environmental management, e.g. a large scale contamination event, EMS procedure not followed.
- minor non-conformances - a non-conformance which requires small-scale corrective action to re-establish sound environmental management, e.g. a small contained spill, EMS form not completed correctly.

Non-conformances may be identified through the following methods:

- audit findings (internal or external)
- complaints (internal or external)
- observation
- incidents/near -misses

It is the responsibility of all QPBC staff to bring suspected non-conformances to the attention of the Environmental Representative.

A Non-onformance Report to be prepared to document the following:

- Date and time of the occurrence
- Identification number (reference)
- Identifier of the Non-conformance
- Person responsible
- Signature of the person completing
- Initial analysis of the Non-conformance

- Cause of the Non-conformance
- Date of Non-conformance
- Location of the Non-conformity
- Description of the Non-conformity
- Corrective and preventive actions
- Significant
- Classification of minor or major

8.2. Preventative Action

All workers and contractors required to:

- assist in identifying, documenting, and implementing preventive actions to reduce or eliminate failures in the EMS. Potential non-conformances examined, and actions taken to prevent their occurrence.
- follow Non-conformance procedure on detection of a possible non-conformance;
- bring it to the attention of their Supervisor/Manager immediately.

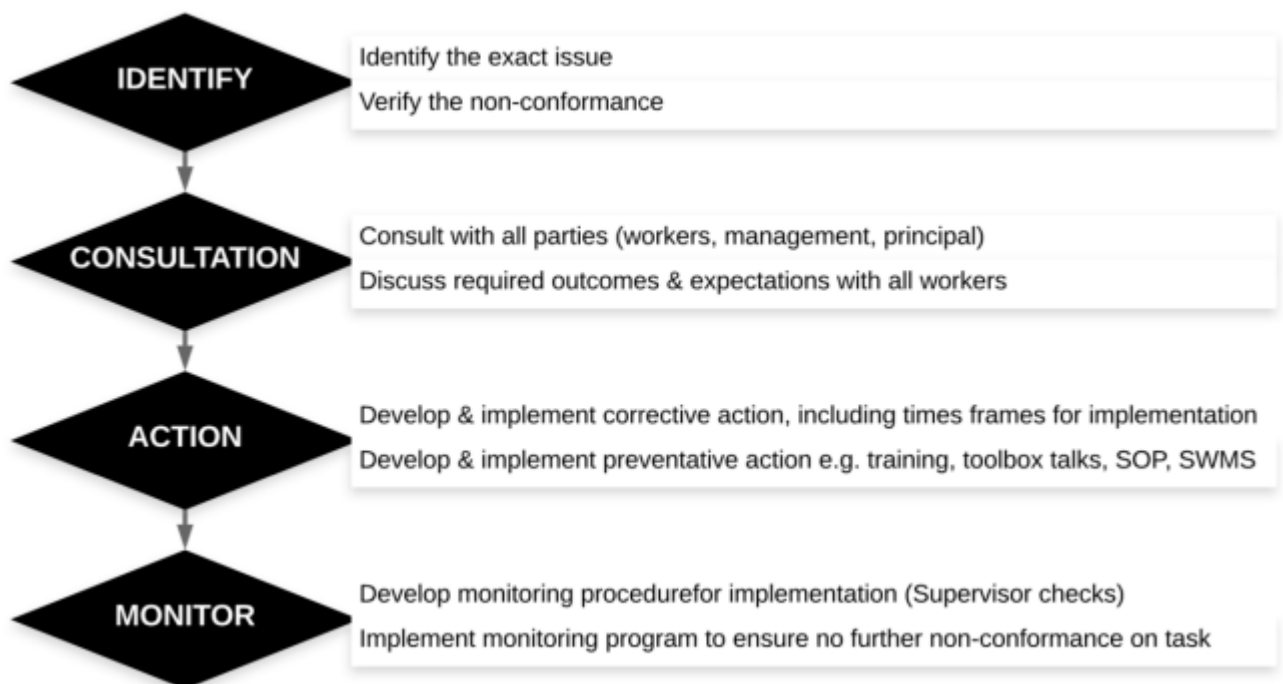


Figure 8.2. Non-conformance Process

9. CORRECTIVE ACTION PROCESS

9.1. Corrective action process

QPBC quality management system is based on ISO 9001 to ensure that the company offers quality products and operates correctly under its regulatory measures.

If non-conformance occurs, the Environmental Representative in consultation with the auditee or person responsible for the activity will:

- determine whether the regulatory authority (NT EPA) is required to be notified of the non-conformance (in case of ‘pollution incident’ or a material harm to environment)
- perform root cause analysis
- determine how the impacts can be successfully remedied to ensure sound environmental management.
This will be achieved by:
 - o reviewing and analysing the non-conformity for the causes of the failure;
 - o determining if similar non-conformities exist in our processes or if they could potentially occur;

The agreed corrective actions will be documented on the Non-conformance Report and must be approved/verified by the Environmental Representative. The agreed corrective actions will identify responsibility and the timescale to complete the action. The corrective action taken will be of an appropriate magnitude to the effects of the non-conformities encountered.

This EMP and Work Method Statements will be revised wherever appropriate to reflect the corrective action.

The Environmental Representative will review outstanding non-conformances (Non-conformance Register) on a monthly basis, assess progress or reasons for lack of, and will arrange further actions as required, to ensure completion in a reasonable time frame.

Repeated non-conformances of similar nature must be reported to the Environmental Representative for action and resolution.

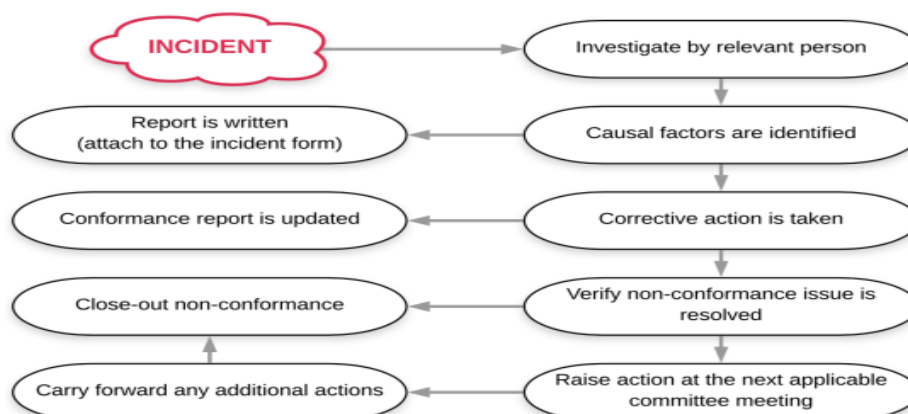


Figure 8.1 Non-conformance Map

9.2. Closing non-conformities

Before deciding to agree to close a non-conformity, the independent auditor will review what the organisation did in respect of containment, correction, cause analysis and corrective action results. The auditor is to perform direct examination on site and to ensure that there is objective evidence (including supporting documentation) to demonstrate that the described corrective action has been fully implemented and is effective in preventing the non-conformity from reoccurring. Only once the situation is satisfactory, the non-conformity to be closed by the company.

10. MONITORING

QPBC adopts a systematic approach to the monitoring and measurement of data within the EMS to:

- Monitor performance of mitigation/protective equipment and processes in place
- Monitor compliance with legal and other requirements; and
- Any other monitoring or measurement requirements as a result of the EMS.

Monitoring Procedure:

- Management review will identify all activities that will require monitoring.
- The Environmental Representative will determine what is needed to ensure that validated and reliable results are achieved to ensure conformity with QPBC internal and external requirements.
- The Management Team will ensure that the right level of resourcing is available to deliver the results.
- Monitoring and measuring will be undertaken on a weekly basis. *Supervisors Andreas Ioannou and Anastasis Glynatsis* are to be responsible for undertaking monitoring, completing Site Environmental Inspection Checklists and presenting them to the Environmental Representative for a review.
- A risk assessment will be undertaken to assign the activities a risk rating;
- Any equipment requiring calibration will be noted in the Monitoring/Measuring Equipment Register;
- The Monitoring Register is to be retained on file by the relevant Supervisor/Manager, updated as required and reviewed annually.

Records of environmental monitoring will be made available to the DIPL Superintendent upon request.

11. AUDITING

QPBC is committed to assessing compliance with the EMS and the company in alignment with AS/NZS ISO 45001. By doing so, we are ensuring the system itself is effectively implemented and maintained.

Audit plans identifying criteria, scope, frequency, and methods will be developed and administered by the Environmental Representative. Audits will be scheduled, organised, performed and recorded following detailed procedures and work instructions. Suitably competent persons who are not accountable for environmental outcomes in the area being audited will perform audits.

All audit findings and results will be maintained. Where corrective actions are identified, a report create accordingly, and management responsible for the non-conforming result ensure the necessary corrective actions

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are taken without undue delay. All follow-up actions will be verified and signed off as complete by the Environmental Representative.

11.1. Internal Audit

Management will:

- implement an Annual Audit Schedule to determine whether the EMS conforms to the documented
- policies and procedures;
- allocate sufficient resources to ensure the EMS is properly effective and maintained;
- nominate an EMS Audit Manager to develop and lead the audit process;
- provide audit findings to the Environmental Representative
- professionally conduct all audits.

All workers are required to:

- participate and assist in audits as required;
- bring it to the attention of their Supervisor/Manager immediately any issue that may affect a current audit.

The EMS Audit Manager will:

- develop an internal audit program
- ensure an internal audit of the EMS is undertaken annually (At minimum);
- select an audit team (ensuring the auditor team has appropriate audit training);
- appoint an audit team leader (if not themselves);
- establish and implement an Internal Audit Plan; (considering breadth and depth of audit);
- communicate the audit schedule to the organisation;
- select an audit team.

Audit Team Selection

One or more auditors will comprise an audit team:

- if the team is made up of more than one auditor, a Lead Auditor will be nominated;
- the Lead Auditor will ensure that the team understands the scope of the audit;
- the Lead Auditor will ensure that relevant organisational EMS policies, procedures and other documents are made available before the audit commences (ensuring a reasonable notification time for audited departments before the audit).

Audit Plan

The Lead Auditor is responsible for ensuring the preparation of a written audit plan.

Audits to be conducted on a quarterly basis and based on the key risks identified in the Environmental Risk Assessment as provided in tender documentation and the risks identified in the CEMP developed by QPBC.

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The audit plan will consider:

- relevant system documents and records to verify that all works are in compliance with the DIPL Environmental Standard Specification, Legislation and this EMP.
- components of AS/NZS ISO 45001

Conducting the Audit:

- A pre-audit meeting is held with appropriate personnel to confer on the scope, plan and timing for the audit;
- The Lead Auditor may modify the audit scope and plan if necessary;
- All audit findings must be documented;
- Corrective actions from previous audits must be considered and documented;
- A post-audit meeting will be held to present preliminary audit findings, clarify any misinterpretations, and summarise the audit outcomes.

Reporting audit outcomes:

- The Team Leader will prepare an audit report;
- The audit report will state the scope of the audit, identify the audit team, define the evidence used, and summarise the results of the audit;
- Audit findings indicating that corrective actions are required must be entered into the Corrective/Preventative Action Register;
- The EMS Audit Manager is responsible for distributing the audit results to the Management.
- The EMS Audit Manager is responsible for ensuring audit reports are tabled for review at the next Management Review.

Audit follow-up:

- non-conformances identified as a result of the audit will be listed in the Non-conformance Form and the Corrective/Preventative Action Form;
- the EMS Audit Manager will be responsible for the completion and effectiveness of corrective actions.

Record keeping:

- all Internal Audit Reports will be retained for at least two years from the date of the Audit;
- the EMS Audit Manager is responsible for assigning audit records to the EMS Manager for storage (including any records relating to the training of auditors).

Note: Should any evidence collected during the Internal Audit suggest an extreme risk exists, this information must be communicated directly to Environmental Manager/CEO immediately. Work tasks involving the identified extreme risk must stop until effective control measures have been implemented.

11.2. External Audit

Responsibilities

The Organisation is responsible for ensuring that:

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- there are an effective External Auditing Procedure and supportive mechanisms in place;
- the auditors who are engaged to coordinate, conduct and document audits are adequately trained and qualified to undertake such tasks;
- all workers who are required to appoint, liaison with and assist auditors are trained and familiar with the External Auditing Procedure; and
- review of the External Auditing Procedure conducted as required.

The Environmental Representative is responsible for:

- maintaining and reviewing the External Auditing Procedure as required;
- appointment of qualified external auditors, negotiating the Terms of Engagement and determining the scope of the external audit with the proposed auditor, in consultation with the Organisation;
- ensuring that appropriate audit documentation is available and used to conduct the external audit;
- assisting managers, supervisors and workers in participating in audits and corrective actions when required;
- informing and consulting with the Organisation/CEO regarding the audit process, in particular, the scheduling of audits, audit outcomes, and the address of corrective actions;
- coordinating the completion of corrective actions and follow up meetings and audits as required; and
- maintaining adequate records in respect of all external audits.

Supervisors are responsible for:

- informing workers and others about the requirement to participate and cooperate with the audit process as required. Consulting with workers about audits;
- ensuring that workers are made available for participation in audits when required;
- liaison with the auditor and the Environmental Manager to ensure the smooth conduct of audits;
- participating in and cooperating with the audit process as required. Attending audit meetings and
- assisting with the implementation of Corrective Actions and follow-ups as required.

All workers are responsible for participating in and co-operating with External Audits when required by the Environmental Manager.

External Audit Procedure

The Environmental Manager determines the need for an external audit and submits information and recommendations to the Organisation, for approval of an external audit to proceed.

Audits to be conducted on a quarterly basis and a based on the key risks identified in the Environmental Risk Assessment as provided in tender documentation and the risks identified in the CEMP developed by QPBC.

Upon approval to proceed with the audit, the Environmental Manager:

- determines the nature and scope of the audit;
- investigates a suitable experienced and qualified auditor;
- negotiates the Terms of Engagement of the audit;
- engages the auditor;
- consults with relevant Managers and workers to schedule in the
- audits and allocated time for workers to participate in the audit process as required;

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Information and evidence collected during the audit documented in a detailed External Audit checklist and Summary Report by the auditor;

Notes from interviews and original photographs kept with the External Audit Summary Report as evidence collected by the auditor.

The External Audit Checklist and Summary Report will be submitted to the Environmental Representative/CEO inclusive of a list of recommended corrective actions for the management to address.

Follow up meetings between the Environmental Manager/CEO will occur to ensure the corrective actions are completed in a suitable timeframe.

QPBC will maintain records of the results of environmental audits including non-conformances and the effectiveness of any remedial action taken.

Records of environmental audits will be available to the DIPL Superintendent upon request.

Note: Should any evidence collected during the external audit suggest an extreme risk exists, this information must be communicated directly to Environmental Representative/CEO immediately. Work tasks involving the identified extreme risk must stop until effective control measures have been implemented.

Supervisors Andreas Ioannou and Anastasis Glynatsis and Environmental Representative Harry Vavlas to be present during external environmental audits if conducted by DIPL, NT EPA or DENR.

12. ENVIRONMENTAL TRAINING AND INDUCTION

All site staff, sub-contractors and visitors will be subject to and made aware of the site EMP, environmentally sensitive areas, identified cultural sites of significance, Sacred Sites or Restricted Works Areas (RWAs) and environmental responsibilities.

All QPBC workers who will be working on this project will receive site-specific induction training. The induction training will include:

- familiarisation with the requirements of this EMP;
- environmental emergency response training; and
- familiarisation with site environmental controls and site specific risks.

QPBC may combine the Work Health and Safety (WHS) and Environmental induction into one. A record of the site induction will be made on the Site Environmental Induction Register (see Attachment 2).

Management will periodically undertake reviews and evaluations of worker competency and training certifications. Worker evaluations will take into consideration the opportunity for continual improvement of their skills and personal growth. If a worker is identified as requiring upgraded training or skill development the worker will have the required corrective action placed in the Training Needs Register and acted on as soon as practicable. Internal auditing processes will evaluate the effectiveness of training and competency within the company on an annual basis.

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13. EMERGENCY MANAGEMENT

13.1. Emergency Response Procedures

13.1.1 Fire

Steps to manage a fire emergency:

- Call '000' as soon as possible. If '000' does not work on your mobile phone call '112';
- If safe to do so leave the work area. If unsafe to leave, seek refuge in a safe area immediately;
- Go to the designated Emergency Assembly Area or to a clear/open area;
- Make sure all workers are present and accounted for, do not return to the work area to locate any missing workers; and
- Notify the Site Supervisor and wait for instructions.

13.1.2 Gas Leak Emergency

Steps to manage a gas leakage emergency:

- Call the Site Supervisor immediately, if deemed necessary call the Fire Brigade on '000'. If '000' does not work on your mobile phone call '112';
- Site Supervisor to immediately arrange to turn off the gas supply;
- Site Supervisor to turn off the site's electrical supply;
- If deemed necessary notify all persons to evacuate the work area and assemble at the Emergency Assembly Area;
- Control the movement of people to the Emergency Assembly Area;
- Check all workers and others are in attendance; and
- Remain at the Emergency Assembly Area until notified that the area is safe to reoccupy.

13.1.3 Leak or Spill Emergency

Steps to manage any Leak or Spill in a work site:

- Identify the source of the problem;
- Stop goods leaking;
- Contain spilt material, using spills kit or sand;
- Notify officer or Site Supervisor;
- Remove spilt material and place in sealed container for disposal (if possible); and
- Site Supervisor to record incident.

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13.1.4 Cyclone Emergency

- Disconnect all electrical appliances/tools. Listen to your battery radio for updates.
- Stay inside and shelter (well clear of windows) in the strongest part of the building,
- If the building starts to break up, protect yourself with mattresses, rugs or blankets under a strong table or bench or hold onto a solid fixture, e.g. a water pipe.
- Beware the calm 'eye'. If the wind drops, don't assume the cyclone is over; violent winds will soon resume from another direction. Wait for the official 'all clear'.
- If driving, stop (handbrake on and in gear) — but well away from the sea and clear of trees, power lines and streams. Stay in the vehicle.
- Site Supervisor will be in contact if possible

13.2. Emergency Contacts and Response

This EMP sets out QPBC management of environmental emergencies during the project. It includes:

- the names of key emergency response personnel and contact details (including all-hours telephone numbers);
- contact details for emergency services (e.g. ambulance, fire brigade, spill clean-up services);
- the location of on-site information on hazardous materials, including SDS (Safety Data Sheets) and spill containment material;
- steps to follow to minimise damage and control the emergency; and
- instructions and contact details for notifying the Site Supervisor, EPA, local council, nearby residents or the community if necessary.

Key Emergency Response Personnel

Harry Vavlas will be the first point of contact when an incident or spill occurs. He can be contacted 24 hours a day.

Contact details including emergency services are included in **Table 13.1**

Table 13.1 Emergency Response Contact Details

Project Contact Details	
Emergency Services	
Ambulance, Fire or Police	000
First Aiders	
Stavros Pilatos	0453 262 984
Oshani Makawitige	08 8944 6206
Utilities	
Water	132 203

Electricity	132 090
Gas	131 388
Telephone	131 909
Dial Before You Dig	1100
NT EPA (24 hour pollution line)	1800 064 567
Project Manager	
Harry Vavlas	0410 576 050
Irina Pengelly	0439 841 680
Officer / Site Supervisor	
Anastasis Glynatsis	0418 814 209
Andreas Ioannou	0414 683 923
Health and Safety Representative (HSR)	
Rob Hangan	08 8932 1613

13.3. Reporting requirements to relevant agencies

NT EPA – 1800 064 567

QPBC to notify the NT EPA if the company undertakes an activity and an accident occurs which causes, or threatens to cause, pollution resulting in a material or serious environmental harm.

NT WORKSAFE – 1800 019 115

QPBC to notify NT WORKSAFE of any dangerous incidents (near misses) that arise out of the conduct of the business or undertaking and that expose any person to a serious risk resulting from an immediate or imminent exposure to:

- an uncontrolled escape, spillage or leakage of a substance
- an uncontrolled implosion, explosion or fire
- an uncontrolled escape of gas or steam
- an uncontrolled escape of a pressurised substance
- electric shock:
 - examples of electrical shock that are not notifiable
 - shock due to static electricity
 - 'extra low voltage' shock (i.e. arising from electrical equipment less than or equal to 50V AC and less than or equal to 120V DC)
 - defibrillators are used deliberately to shock a person for first aid or medical reasons
 - examples of electrical shocks that are notifiable
 - minor shock resulting from direct contact with exposed live electrical parts (other than 'extra low voltage') including shock from capacitive discharge
- the fall or release from a height of any plant, substance or thing

- the collapse, overturning, failure or malfunction of, or damage to, any plant that is required to be design or item registered under the Work Health and Safety Regulations, for example a collapsing crane
- the collapse or partial collapse of a structure
- the collapse or failure of an excavation or of any shoring supporting an excavation
- the inrush of water, mud or gas in workings, in an underground excavation or tunnel, or
- the interruption of the main system of ventilation in an underground excavation or tunnel.

14. RISK ASSESSMENT

The risk to the environment of carrying out the project has been considered and documented.

The following environmental management activities, mitigation and control measures will be adopted to prevent or minimise environmental impacts of job specific and identified risks. Please refer to Appendix 3 for the **Environmental Risk Assessment Matrix**.

14.1. Hazardous Materials

Management Strategy	(Detail site specific Management Strategy)
Control(s)	<ul style="list-style-type: none"> • All hazardous and/or intractable wastes are to be disposed of in accordance with DIPL and EPA requirements. • All hazardous waster removed from the site will be disposed of in accordance with the Protection of the Environment Operations Act 1997 • Safety Data Sheet of hazardous substance will be referred to if spills occur • All hazardous substances will be recorded in the Hazardous Substances Register and the SDS recorded in the Safety Data Sheets Register
Performance Indicator(s)	Number of times corrective measures are implemented
Monitoring	weekly
Reporting	Inspection records / Harry Vavlas
Corrective Action(s)	In case of non-conformance

14.2. Weed Management

Management Strategy	(Detail site specific Management Strategy)
Control(s)	<ul style="list-style-type: none"> • Assessing sites for evidence of existing weed infestation • Spot spraying or removal of identified weed species that emerge on the worksites or laydown area during the period of site possession • Minimising the disturbance of native vegetation and ground cover/grasses wherever possible • The reuse of weed contaminated topsoil by surface spreading is not permitted. • Topsoil that is contaminated with weed seeds will be quarantined with visible barriers

Management Strategy	(Detail site specific Management Strategy)
	<p>and a notice, then treated appropriately. Alternatively, it will be buried under 300mm depth of clean, weed seed free fill.</p> <ul style="list-style-type: none"> • The main methods to ensure that weeds are not spread are: <ul style="list-style-type: none"> - Clean machines before moving between sites - Don't use or move materials contaminated with weed seeds - Avoid travelling through weeds that are seeding. • Collection and disposal of the removed earth and organic material will be conducted in a method that will ensure that it does not infest any river, stream, wetland or property.
Performance Indicator(s)	Number of times corrective measures are implemented
Monitoring	Quarterly
Reporting	Inspection records / Harry Vavlas
Corrective Action(s)	In case of non-conformance

14.3. Waste Management

Management Strategy	(Detail site specific Management Strategy)
Control(s)	<ul style="list-style-type: none"> • Comply with the requirements of the WMPC Act. • Remove from the site and dispose of all waste materials, including green waste, food scraps and other putrescible wastes, construction waste, chemicals and effluent in an appropriate manner, in approved legal waste disposal sites or facilities. • Recycle waste materials where appropriate. • Maintain a Waste Management Register for the duration of the Contract, to record the types, amounts and locations of waste reused, recycled, stockpiled and / or disposed of. The Waste Management Register must include the following details: <ul style="list-style-type: none"> - Type of waste and its classification (according to the WMPC Act and DENR Waste Classification Guidelines) (Schedule 2 of the Waste Management and Pollution Control Regulations) - Tonnes of waste - How and where the waste was reused, recycled, stockpiled or disposed - Date when the waste was reused, recycled, stockpiled or disposed - Name of the transporter used (Person or Business name) - Be able to produce receipt of commercial disposal if requested. • Implement measures to reduce, re-use and recycle construction waste products/materials including soil, road pavement materials, concrete, oils and vegetation. • Implement measures to recycle waste such as cardboard, plastic and glass bottles and aluminium cans. • Ensure that all effluent from amenities is discharged into an approved facility or, if permitted by the controlling authority, the local sewerage system. Effluent disposal direct to ground or water is NOT permitted. • Septic tanks and portable self-contained toilets of suitable capacity may be used subject to suitable arrangements for the disposal of effluent.

Management Strategy	(Detail site specific Management Strategy)
	<ul style="list-style-type: none"> All septic tank installations or alternative septic systems servicing buildings both within and outside of building areas, apart from installations subject to the <i>Building Act</i>, must be approved by the Chief Health Officer (CHO) or the CHO's delegate for the area in which the works are to be carried out. Domestic rubbish generated from construction personnel will be stored in sealed bags for disposal The site will be left in a clean and tidy state on completion of works <p>For any worksite that contains waste or waste products the following measures will be deployed:</p> <ul style="list-style-type: none"> Appropriate space will be provided for the temporary storage of garbage, recyclable and compostable waste to ensure separation of waste products During works, ongoing checks will be carried out to ensure correct separation and reuse of recyclable materials to be maintained Where possible, all existing building and excavation materials will be reused onsite.
Performance Indicator(s)	Number of times corrective measures are implemented
Monitoring	weekly
Reporting	Inspection records / Harry Vavlas
Corrective Action(s)	In case of non-conformance

14.4. Contamination Management

Management Strategy	(Detail site specific Management Strategy)
Control(s)	<ul style="list-style-type: none"> Comply with the WMPC Act in relation to disturbance or treatment of potentially contaminated land. Immediately implement any control measures needed to divert surface runoff away from contaminated land and to capture and manage any surface runoff contaminated by exposure to contaminated land. Transportation of chemicals and dangerous goods is to be undertaken in accordance with relevant NT and National legislation, codes and standards. Plan and execute all works to minimise the possibility of pollution of the site and adjoining areas from chemicals, dangerous goods and other potential contaminants. Use, store and handle chemicals and dangerous goods in accordance with all relevant legislation, manufacturer's instructions and the relevant Safety Data Sheets (SDS). Employ transporting, handling, storage and application methods that will prevent chemical, fuel and lubricant spillage on the site and adjoining areas. Contain and maintain on site an up to date SDS Register and copy of all SDSs for those materials stored on site. Do not pollute or permit pollution of land or waterways by a chemical, fuel or

Management Strategy	(Detail site specific Management Strategy)
	<p>lubricant, or any waste material or imported fill.</p> <ul style="list-style-type: none"> • Storage of chemicals and fuels is to meet requirements under AS1940-2004 - The Storage and Handling of Flammable and Combustible Liquids. As a minimum the capacity of the bunded area (spillage containment compound) shall be at least 100% of the volume of the largest package plus 25% of the storage capacity up to 10,000 Litres (L), together with 10% of the storage capacity between 10,000 L and 100,000 L, and 5% above 100,000 L. • The bunded storage area shall be sufficiently impervious to retain spillage and to enable recovery of any such spillage. • Do not locate storage areas within 50 m of natural or built drainage lines, flood prone areas, or on slopes steeper than 1:10. • Do not leave refuelling operations unattended. • Do not refuel or maintain plant and equipment, mix cutting oil with bitumen, or carry out any other activity which may result in the spillage of a chemical, fuel or lubricant on any location with direct drainage to a waterway or environmentally sensitive areas without appropriate temporary bunding. • Vehicles and machinery are to be maintained to manufactures specifications to reduce the risk of fuel, oil or hydraulic fluid spills into the surrounding environment. • Where possible, workshops are to have impermeable floors to prevent hydrocarbon spills into the soils. If not, contaminated soils from the workshop area are to be disposed of in accordance with the WMPC Act. • Before discharging any water from bunded areas, verify that the water complies with any applicable legislation or water quality criteria nominated by the NT EPA and/or DENR. Arrange appropriate treatment if the water quality is not suitable for discharge. • Spill clean-up equipment and materials, appropriate for the type and quantities of chemicals used on site, must be kept on site at all times during the works and in a readily accessible location. • The equipment and materials for spill clean-up and containment must be maintained and replenished as needed. • All site personnel must be trained in the use of spill clean-up equipment, and containment of materials, including appropriate storage of chemicals if materials must be on site whilst any works are conducted. All site personnel must be aware of the location of spill kits on sites. • Clean up all chemical spills immediately. This may require the excavation of contaminated soil and appropriate remediation or disposal at waste disposal facility. If spills result in an environmental incident, ensure that the incident is reported in accordance with reporting procedures and legislative requirements. • Do not dispose of liquid paint materials or other hazardous materials by flushing down any sewer, stormwater system or natural waterway. • Keep records of all water quality checks, discharges and any remedial actions. • Report all chemical spills to the DIPL Superintendent. Where appropriate, also report spills to the NT Pollution Hotline, phone 1800 064 567. • An Asbestos Management Plan (AMP) will be provided if QPBC are engaged to conduct works at locations where the nature of their works will or are likely to disturb any asbestos or asbestos containing material. An AMP will also be provided in the event Asbestos is unexpectedly exposed during works. • Regular maintenance will be undertaken on all machinery and transport vehicles to ensure there are no fuel or oil spills or leaks • Safety Data Sheets (SDS) for all hazardous materials will be kept on site

Management Strategy (Detail site specific Management Strategy)	
Performance Indicator(s)	Number of times corrective measures are implemented
Monitoring	weekly
Reporting	Inspection records / Harry Vavlas
Corrective Action(s)	In case of non-conformance

14.5. Noise and Vibration Control

Management Strategy (Detail site specific Management Strategy)	
Control(s)	<ul style="list-style-type: none"> • Operate within the requirements of the NT EPA Noise Guidelines for Development Sites in the Northern Territory and the WMPC Act, or where operation outside of these guidelines is required obtain approval from the DIPL Superintendent to do. • Take all practical precautions to minimise noise resulting from the work activities. Fit noise suppressors to all construction equipment so that noise is minimised. • Do not use loud hailers in built up areas. • Where applicable the following measures will be applied to minimise the impact of noise: <ul style="list-style-type: none"> - Substitution by an alternative process - Restricting times when noisy work is carried out - Placement of work compounds, parking areas, equipment and material stockpile sites away from noise-sensitive locations - Where noise barriers/walls are to be constructed, programming this as early as possible to reduce noise impacts from other construction work on neighbouring residents - Screening or enclosures - Consultation with affected residents. • Take due care in all construction activities to prevent damage to adjacent public utilities, structures and buildings resulting from construction vibration and air blast. To protect the amenity of the occupiers of buildings, the blasting activities shall be carried out to meet appropriate standards and guidelines. • Consult with affected residents before commencing any activities likely to cause ground vibration or air blasting. • Works will be undertaken during the nominated hours
Performance Indicator(s)	Number of times corrective measures are implemented
Monitoring	weekly
Reporting	Inspection records / Harry Vavlas

Management Strategy (Detail site specific Management Strategy)	
Corrective Action(s)	In case of non-conformance

14.6. Cultural and Heritage Management

Management Strategy (Detail site specific Management Strategy)	
Control(s)	<ul style="list-style-type: none"> Should any item be encountered which is suspected to be a relic of heritage value or any relic, artefact or material suspected of being of Aboriginal origin, all construction work that might affect the item will cease and the item protected from damage and disturbance. The Superintendent will be notified immediately. No further works in the vicinity are to recommence until the DIPL Superintendent has provided further advice to do so. There may be a requirement for the Heritage Branch (Department of Tourism and Culture), Land Council or AAPA to investigate the findings. All personnel working on site will receive training regarding their responsibilities related to cultural heritage and will be made aware of any sites or areas which must be avoided. Sites or areas which must be avoided or protected during works must be identified on a site map. The map must be made available to all relevant personnel during the works. The protection of sites may require the installation of temporary protection fencing and maintenance of the fencing.
Performance Indicator(s)	Number of times corrective measures are implemented
Monitoring	weekly
Reporting	Inspection records / Harry Vavlas
Corrective Action(s)	In case of non-conformance

14.7. Site Control / Clearing / Stockpiling

Management Strategy (Detail site specific Management Strategy)	
Control(s)	<ul style="list-style-type: none"> Do not form any new tracks, alter any existing tracks, erect any camps, remove any trees or shrubs, cut any fences or water, sewer, power or telecommunications lines or perform other activities not specified or indicated on the drawings or otherwise required under the Contract without the prior written approval of the DIPL

Management Strategy	(Detail site specific Management Strategy)
	<p>Superintendent.</p> <ul style="list-style-type: none"> • All works are to be staged appropriately to minimise potential risks and impacts to the environment. Staging of the works must be addressed in the project timeline. • All works within waterways/drainage lines will be completed and the site stabilised prior to the start of the Wet Season (by 30 September). • Install all necessary erosion and sediment control measures to effectively manage sediment laden runoff or wind erosion from stockpile areas. • Do not place stockpiled materials inside vegetation protection areas or within 10 metres of retained trees or within the drip line of any trees. • Do not place stockpiles within 50 metres of any drains, drainage lines, creeks or other waterways. • Locate the stockpiles so that any slump of the stockpile would not affect erosion and sediment control measures or infringe upon specified minimum clearance requirements. • Top soil stockpiles are not to be more than 2 metres in height. All other stockpiles are not to be more than 3 metres in height (unless approved by the Superintendent). • Topsoil that is not contaminated by noxious weeds must be stockpiled for later spreading on batters and other disturbed areas. Other material may also be stockpiled but separated from the topsoil stockpiles. • Stockpiles in residential areas or adjacent to sensitive receivers are not to exceed 2 metres in height. • Maintain the stockpiles to prevent the growth of weeds on the stockpiles. • Long term stockpiling in the urban environment is to include protection to reduce the risk of wind (dust) and/or rain (sedimentation). • Mulch stockpiles are to be monitored for tannin leachate. In the event leachate is identified, controls will be installed to prevent run-off from site/into waterways. •
Performance Indicator(s)	Number of times corrective measures are implemented
Monitoring	weekly
Reporting	Inspection records / Harry Vavlas
Corrective Action(s)	In case of non-conformance

14.8. Erosion and Sediment Control

Management Strategy	(Detail site specific Management Strategy)
Control(s)	<ul style="list-style-type: none"> • Temporary erosion and sediment control measures will be kept on site at all time. • It is the responsibility of the Environmental Representative to monitor local weather and determine the requirement to install temporary controls on site. • Sediment and erosion control fencing will be installed and left in place until all works are complete.

Management Strategy	(Detail site specific Management Strategy)
	<ul style="list-style-type: none"> • Filter snakes and silt bags will be used to limit the flow of water and trap sediment on site. • Disturbed areas will be stabilised progressively with vegetation during construction, where necessary, and stabilisation will be undertaken after works are complete and prior to demobilization from site. • After heavy rain, all sediment and erosion controls will be checked and made good • All stockpiles will be covered and sediment fences installed on the low side to prevent materials washing away • At the commencement of works, trees and shrubs will be marked for relocation, removal or to be maintained. • Excavation near trees to be kept will be avoided and stockpiles kept clear of any trees
Performance Indicator(s)	Number of times corrective measures are implemented
Monitoring	weekly
Reporting	Inspection records / Harry Vavlas
Corrective Action(s)	In case of non-conformance

14.9. Water Quality

Management Strategy	(Detail site specific Management Strategy)
Control(s)	<ul style="list-style-type: none"> • Comply with all relevant legislative requirements and requirements of local water authorities and all other relevant laws and by-laws in force in the Northern Territory. • Provide controls, including soil erosion and sediment controls, to ensure that all water leaving the site complies with any water quality criteria. (This includes streams/waterways, bores, hydrants and stand pipes). • Water quality of the downstream environment is to remain as close as possible in quality as those upstream environments above the designated works area. • In the urban environment measures are to be implemented to prevent contaminated water leaving the worksite and entering stormwater infrastructure. • The natural channel geometry and meander form of perennial and non-perennial streams must not be altered, nor riparian vegetation disturbed except where written approval is given by the DIPL Superintendent. • Temporary hydraulic structures such as open channels, drainage lines, batter chutes, release points into streams, and vehicle crossings, are to be designed to carry flows and remain stable, without causing erosion damage, in at least the 5-year Average Recurrence Interval (ARI) event of critical duration. • Flow in channels and drainage lines must be managed to non-erosive velocities, or channels lined with suitable protective material as necessary to prevent scouring. • Works in waterways and stormwater drainage lines are to be timed to minimise the potential for exposure to rain or flood events, have minimal disruption with disturbed

Management Strategy	(Detail site specific Management Strategy)
	<p>areas and be rehabilitated within 10 days following completion of works in these areas.</p> <ul style="list-style-type: none"> Table drains are to be top-dressed with stripped topsoil from the project to promote the re-establishment of grasses along batters
Performance Indicator(s)	Number of times corrective measures are implemented
Monitoring	weekly
Reporting	Inspection records / Harry Vavlas
Corrective Action(s)	In case of non-conformance

14.10. Vegetation Management

Management Strategy	(Detail site specific Management Strategy)
Control(s)	<ul style="list-style-type: none"> Do not destroy, remove or clear vegetation to an extent greater than is necessary for the execution of works and/or identified in the design drawings. Minimise environmental risks by following vegetation management strategies such as: <ul style="list-style-type: none"> Excluding access to significant vegetation areas Excluding sacred sites/trees Selecting appropriately sized clearing machinery and equipment Minimising worksite area Protecting vegetation driplines Locating ancillary activities (e.g. stockpile sites, camps, parking locations, vehicle hardstands) within existing disturbed areas. Where trees are to remain on site within the construction zone, AS4970-2009 Protection of Trees on Development Sites is to be applied. Should a threatened species be identified onsite, stop works in the immediate area, notify the DIPL Superintendent, and install a temporary protective barrier to protect the species. Prior to clearing any area it is to be demarcated with fencing, flagging tape, spray paint or other method approved by the DIPL Superintendent. Ensure the demolition indicators (tapes, spray paint or other) do not go outside of the clearing limits shown on the drawings OR the clearing limits approved in writing by the DIPL Superintendent. Ensure that all site personnel observe the limits of clearing and are made aware of the importance of any vegetation of significant value. Should works or disturbance be proposed in areas outside the previously approved works boundaries, permission must be obtained in writing from the DIPL Superintendent.

Management Strategy	(Detail site specific Management Strategy)
	<ul style="list-style-type: none"> • If any areas of vegetation within the limits of clearing are to be retained, fence off with temporary fencing. • Clearing will be staged so that land disturbance is confined to minimum areas of manageable size, thereby limiting the extent and duration of exposure. Control measures will be applied progressively as each stage is cleared. • All areas to be cleared or used as turnaround or laydown areas will be identified on clearing plans, approved by the Superintendent, provided to the personnel undertaking the clearing works, and flagged on the ground prior to any clearing activities commencing. • Methods and timing of clearing is to be implemented in a manner that minimises the potential for erosion to occur. All machinery operators will be trained in best practises for clearing to minimise erosion. • Cleared vegetation, excluding weeds, may be stockpiled and reused on site for rehabilitation of disturbed areas such as, extraction areas, vehicle turn around areas, detours etc. • Cleared vegetation can also be mulched on site and re-used on site where appropriate as ground cover or environmental control measures, if suitable. • Storage of cleared vegetation and stripped topsoil is not to impact on areas outside of that required for project works. • Clearing of native vegetation, particularly within extraction areas is to adhere to the buffer requirements to waterways referenced in the NT Land Clearing Guidelines 2019. • Any variation to the buffers distances outlined in the NT Land Clearing Guidelines will require prior written approval from the DIPL Superintendent. • Remove excess or unwanted material from the site and dispose in accordance with local authority requirements and guidelines.
Performance Indicator(s)	Number of times corrective measures are implemented
Monitoring	weekly
Reporting	Inspection records / Harry Vavlas
Corrective Action(s)	In case of non-conformance

14.11. Fauna Management

Management Strategy	(Detail site specific Management Strategy)
Control(s)	<ul style="list-style-type: none"> All native wildlife must be protected. All trees to be removed are to be inspected to establish whether nesting native fauna are present. If present, disturbance will only proceed after approval from the DIPL Superintendent. Fauna spotters/handlers are required where projects require the clearing of mature trees that have a high risk of nesting or roosting opportunities for wildlife and/or where greater than 1 hectare of native vegetation is required to be cleared. Should a threatened species be identified onsite, stop works in the immediate area, notify the DIPL Superintendent, and install temporary protective barriers to protect the species. Should any species require relocation/handling or an injured species is found on site, a certified wildlife carer is to be contacted immediately (e.g. Wildcare NT).
Performance Indicator(s)	Number of times corrective measures are implemented
Monitoring	weekly
Reporting	Inspection records / Harry Vavlas
Corrective Action(s)	In case of non-conformance

14.12. Pest Animal Management

Management Strategy	(Detail site specific Management Strategy)
Control(s)	<ul style="list-style-type: none"> Ensure that all necessary measures are undertaken to prevent and minimise the risk of the introduction and spread of pest animals. No domestic pets, including dogs, are to be brought to the construction site by construction personnel without written approval from the DIPL Superintendent. If approved, pets must be under control and safely secured at all times. Provide evidence that pets will be under control and safely secured at all times. All necessary measures are to be implemented to prevent the establishment of suitable environments for mosquito breeding habitat. Where works are undertaken in areas known for biting insects, personal protective measures are to be made available to workers and visitors. All waste bins will have lids to prevent the attraction of pests and vermin. Where skips are used for food waste, covers are to be utilised to reduce the risk of attracting pests.
Performance Indicator(s)	Number of times corrective measures are implemented
Monitoring	weekly

Management Strategy	(Detail site specific Management Strategy)
Reporting	Inspection records / Harry Vavlas
Corrective Action(s)	In case of non-conformance

14.13. Fire Management

Management Strategy	(Detail site specific Management Strategy)
Control(s)	<ul style="list-style-type: none"> • The lighting of fires for clearing of vegetation or disposal of rubbish is not permitted under any circumstances. • Where fires are accidentally started, extinguish the fires immediately if appropriate and safe to do so. Camp fires are not permitted on site without written consent from the DIPL Superintendent. Where campfires are permitted, control of campfires is strictly the Contractor's responsibility. Fires are not permitted during fire bans. • The provision of containers or sand buckets are required around workers compounds/camp sites and where practical in the worksite for the disposal of cigarette butts. • No hot works are to be undertaken on days of total fire ban or when high winds may result in sparks spreading to adjacent vegetation. • Fire extinguishers are to be located near chemical/dangerous goods stores, flammable materials and appropriately around the site/workers camp. • Fire extinguishers and fire hose reels are to be tested and tagged to show they are in good working condition. • Emergency response plans are to be developed in case of fire. • Mulch stockpiles are to be monitored on a daily basis to ensure that they have not spontaneously combusted. In the event that a mulch stockpile catches alight, it will be extinguished immediately.
Performance Indicator(s)	Number of times corrective measures are implemented
Monitoring	weekly
Reporting	Inspection records / Harry Vavlas
Corrective Action(s)	In case of non-conformance

14.14. Air Quality

Management Strategy	(Detail site specific Management Strategy)
Control(s)	<ul style="list-style-type: none"> • Construction facilities are to be designed and operated to minimise the emission of smoke, dust, pesticides and other substances into the atmosphere. • Comply with the requirements of the WMPC Act and any conditions of licences, notifications, approvals or permits in relation to maximum air pollutant levels. • Where monitoring is required, the monitoring must comply with the NT EPA air quality guidelines. • Employ construction methods that will keep the air pollution to a minimum. Apply appropriate measures to ensure that airborne pollutants from all activities do not cause undue disruption or inconvenience in the vicinity of the Site. • The following measures, where applicable, are to be conducted to minimise this risk to the environment: <ul style="list-style-type: none"> - Spraying of earthwork formations and roads with water or other suitable liquids approved by the Superintendent - Removal of mud from the wheels and bodies of haulage equipment before it enters public roads or other sealed pavements - Quick removal of mud spilt or deposited by the transport of materials on to public roads or other sealed pavements - Limit vehicle speeds on unsealed roads/surfaces to control the generation of dust by vehicles - Establishment of suitable cover crop or provision of other covering over topsoil stockpiles - Erection of dust screens around and/or spraying of stockpiles with suitable stabilising agents - Stopping dust generating activities which cannot be adequately controlled by water or other means - Transportation of materials which are suitably covered and loaded in a manner that will prevent dropping of materials - Maintaining dust control equipment so that this equipment is available when required, including periods of dust generating activities or high wind speed - Maintaining exhaust systems of construction plant, vehicles and machinery in accordance with manufacturer's specifications and undertaking periodic visual checks of exhaust systems' emissions - Treating topsoil stripped areas with no scheduled activities within two weeks to prevent dust generation.
Performance Indicator(s)	Number of times corrective measures are implemented
Monitoring	weekly
Reporting	Inspection records / Harry Vavlas
Corrective Action(s)	In case of non-conformance

14.15. Rehabilitation

Management Strategy	(Detail site specific Management Strategy)
Control(s)	<ul style="list-style-type: none"> • Progressively rehabilitate extraction areas to reduce the area of exposed soil during construction works. • Following excavation of the required material, any unused rock and gravel material will be spread back over the extraction area. The extraction area “floor” is to be ripped using dozer or grader tynes to a depth of 100mm to 200mm to loosen the floor to encourage new plants to establish. Ripping is to be carried out along contour lines to reduce or prohibit the extent of erosion. • The previously stripped and stockpiled material including topsoil and overburden will be pushed back over the excavation, detour or access track. The stockpiled topsoil is spread over the disturbed areas to encourage regrowth from the soils seed store. The surface of the topsoil will be scarified which will further enhance the ability of the material to trap mobile seeds, dust and moisture. • Cleared vegetation from the project area, detours access tracks and extraction area will be spread prior to demobilisation to assist the re-colonisation of flora and fauna across the site.
Performance Indicator(s)	Number of times corrective measures are implemented
Monitoring	weekly
Reporting	Inspection records / Harry Vavlas
Corrective Action(s)	In case of non-conformance

15. Environmental Schedules

This EMP refers to a number of environmental schedules comprising forms, registers and checklists. They are listed below and included in **Attachment 2**.

1. Site Environmental Induction Register
2. Site Environmental Inspection Checklist
3. Environmental Complaint Form
4. Non-conformance Report Form
5. Hazardous Substances Register
6. Safety Data Sheets (SDS) Register
7. Waste Register

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16. ATTACHMENT 1: ENVIRONMENTAL LICENCES



Licensee	QP Environmental Solutions Pty Ltd
Licence Number	EPL224
Registered Business Address	QP Environmental Solutions Pty Ltd 7 Brooker Street Winnellie NT 0820
ACN	155 405 860
ABN	69 155 405 860
Anniversary Date:	21 November
Commencement Date:	21/11/2017
Expiry Date:	20/11/2022
Scheduled Activity	Collecting, transporting, storing, re-cycling, treating or disposing of a listed waste (as per Table 1) on a commercial or fee for service basis, other than in or for the purpose of a sewage treatment plant.
Description	Collection and transport of listed waste, as per Table 1, on a commercial or fee for service basis, through out the Top End for Local and Territory Government Agencies.

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Table 1 - Listed Wastes Authorised to be Handled

Listed Waste	Collection	Transport	Storage	Treatment	Recycling	Disposal
Asbestos	✓	✓	✗	✗	✗	✗
Basic solutions or bases in solid form	✓	✓	✗	✗	✗	✗
Ceramic-based fibres with physio-chemical characteristics similar to those of asbestos	✓	✓	✗	✗	✗	✗
Fire debris and fire washwaters	✓	✓	✗	✗	✗	✗
Fly ash	✓	✓	✗	✗	✗	✗
Grease trap waste	✓	✓	✗	✗	✗	✗
Residue from industrial waste treatment or disposal operations	✓	✓	✗	✗	✗	✗
Sewage sludge and residues including nightsoil and septic tank sludge	✓	✓	✗	✗	✗	✗
Soils contaminated with a listed waste	✓	✓	✗	✗	✗	✗
Waste mineral oils unfit for their original intended use	✓	✓	✗	✗	✗	✗
Waste substances and articles containing or contaminated with polychlorinated biphenyls (PCBs), polychlorinated naphthalenes (PCNs), polychlorinated terphenyls (PCTs) and/or polybrominated biphenyls (PBBS)	✓	✓	✗	✗	✗	✗
Animal effluent and residues	✓	✓	✗	✗	✗	✗

✓ Activity authorised by this licence

✗ Activity not authorised by this licence

17. ATTACHMENT 2: ENVIRONMENTAL SCHEDULES

SITE ENVIRONMENTAL INDUCTION REGISTER

Record of persons receiving environmental induction for this site

Project Name: _____ **Date:** _____

Address: _____

Name of Inductor: _____ **Telephone:** _____

Topics Covered: _____

I have attended this induction and have read and understood the environmental rules of this site and EMP.

Date	Worker Name	Induction Number (e.g. general induction card, license)	Worker Signature	Supervisor

Trainer Sign off

Signed: _____

Date: _____

SITE ENVIRONMENTAL INSPECTION CHECKLIST

PROJECT DETAILS

Project Name: _____

Contact Name: _____ Telephone: _____

Email _____ Date: _____

ENVIRONMENTAL ISSUES

Erosion and Sediment Control	Yes	No	N/A	Comments
Has an erosion and sediment control plan been created.				
Are sediment and control measures in place for construction works e.g. sediment traps, sediment fences etc.				
Are these being maintained and kept in correct working order.				
Have materials been contained or placed in designated areas to be away from stormwater drains/runoff.				
Are designated washout areas in place away from storm water drains.				
Is relevant protection in place surrounding flora to stop any damage.				
Is the site maintained and cleared away daily of all soil, earth, mud, clay and concrete waste that may cause an environmental issue.				
Waste Management	Yes	No	N/A	Comments
Has a Waste Management Plan been created and implemented.				
Have stock piles or designated waste areas been created.				
Is the waste being stored in such an area as not to pollute or contaminate stormwater drains.				
Have excess materials been recycled, reused or returned.				
Hazardous Materials	Yes	No	N/A	Comments
Are spill kits available and held on site.				
Are spills attended to and cleaned up immediately.				
Are procedures in place noting the correct methods for removing Asbestos.				
Is there a designated storage area for hazardous				

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materials where leaks can't flow to open ground or drains.				
Are all hazardous material containers sealed properly and no leaks evident.				
Are Safety Data Sheet (SDS) on site for all hazardous materials				
Air Quality	Yes	No	N/A	Comments
Does all plant and equipment comply with the relevant codes and emission standards for air quality				
Noise Management	Yes	No	N/A	Comments
Are procedures in place to minimise noise to workers, site and surrounding areas.				
Does all plant and equipment comply with the relevant codes, guidelines and standards for noise control				

Company Representative Name: _____

Company Representative Signature: _____

Date: _____

ENVIRONMENTAL COMPLAINT FORM

Project Name: _____ EC Number: _____
 Address: _____ Date: _____
 EC issued to: _____ EC issued by: _____

ENVIRONMENTAL COMPLAINT DETAILS

Environmental Incident

- Pollution Potential pollution
 Other:

DETAILS OF COMPLAINT

Name:		Address:	
Position:		Contact No	

NATURE OF COMPLAINT

- | | |
|--------------------------------------|--|
| <input type="checkbox"/> Dust | <input type="checkbox"/> Vibration |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Soil contamination |
| <input type="checkbox"/> Water | <input type="checkbox"/> Plant/machinery |
| <input type="checkbox"/> Pollution | <input type="checkbox"/> Waste |
| <input type="checkbox"/> Flora/fauna | <input type="checkbox"/> Erosion and sediment controls |
| <input type="checkbox"/> Heritage | <input type="checkbox"/> Other: |

INCIDENT DETAILS

Location of incident:		Time:	
		Date:	

Description:

Conditions of site when complaint occurred:

Corrective or preventive action to be taken to fix the complaint	Responsible person	Date to be completed by

SIGN OFF

Corrective or preventive action is complete and dealt with by the responsible person noted above

Name:		Date:	
Signature:			

ProjectManager agrees corrective or preventative is complete

Name:		Date:	
Signature:			

NON-CONFORMANCE REPORT FORM

Project Name: _____ NCR Number: _____
 Address _____ Date: _____
 NCR issued to: _____ NCR issued by: _____

NON CONFORMANCE DETAILS

Area of Non Conformance	
<input type="checkbox"/> Site Establishment <input type="checkbox"/> Works outlined in contract <input type="checkbox"/> Supplier <input type="checkbox"/> Customer complaint	<input type="checkbox"/> Work Health and Safety <input type="checkbox"/> Environmental Management <input type="checkbox"/> Quality Management <input type="checkbox"/> Other:

Description of Non Conformance

Outline the evidence obtained for Non Conformance

Corrective or preventive action to be taken to fix the Non Conformance	Responsible person	Date to be completed by

Sign Off			
Corrective or preventive action is complete and dealt with by the responsible person noted above			
Name:		Date:	
Signature:			
QPBC agrees corrective or preventative is complete			
Name:		Date:	
Signature:			

HAZARDOUS SUBSTANCES REGISTER

Product Name	Location where Product is Used	Quantity	Clearly Labeled	SDS on Site		Action / Comments
			Yes / No	Yes / No	Date	

An SDS is a Safety Data Sheet – these are available from the substance manufacturer or the point of purchase. SDS must be on site together with the hazardous substance.

Action / Comments - note any particular safety controls required e.g. use, transport, PPE, first aid, storage, spill control and whether each substance is classified as hazardous (according to NOHSC) or dangerous goods for transportation (according to ADG code).

SAFETY DATA SHEET (SDS) REGISTER

Prepared By: _____

SAFETY DATA SHEET REGISTER					
SDS Number	Date of Issue	Worker	Description	Date Reviewed*	Signed

*Check SDS is current before starting each project.

SDS must not be more than five years old from date of issued date.

Refer to: *Safe Work Australia Code of Practice - Preparation of Safety Data Sheets for Hazardous Chemicals*

18. ATTACHMENT 3: ENVIRONMENTAL RISK ASSESSMENT

The Environmental Risk Rating of an identified impact is measured in terms of consequence (severity) and likelihood (probability) of the event happening.

Risk Assessment Table

Consequence or Impact of Hazard	Risk Level	A	P	U	Likelihood/Probability	Risk Rating
H - Significant detrimental environmental impact, potential death, permanent or long term disability or illness,	H = High	1	1	2	A = Almost certain could happen at any time	1 = Immediate action is required
M - Short term environmental impact, potential temporary disability or illness requiring medical attention	M = Medium	1	2	3	P = Possible risk could happen occasionally	2 = Control the risks/ hazards a.s.a.p.
L - Minimal environmental impact, potential minor injury requiring first aid	L = Low	2	3	3	U = Unlikely may happen rarely	3 = Control risks with routine procedures

Risk Control

Eliminate – ‘Design out’ the hazard when new materials, equipment and work systems are being purchased for the site;

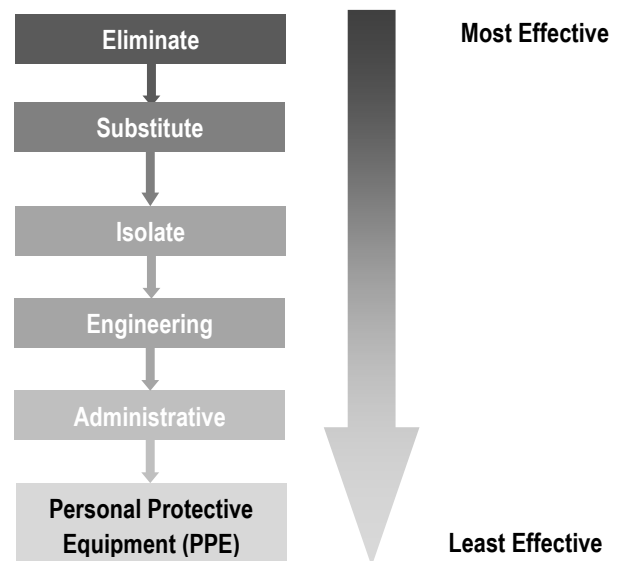
Substitute - Substitute less hazardous materials, equipment or substances;

Isolate – separate the environment/workers from hazards using barriers, enclosing noisy equipment;

Engineering – use engineering controls to reduce the risks. Make sure that appropriate environmental controls are available and used correctly;

Administrative – Minimise the risk by adopting safe and environmentally appropriate working practices or providing appropriate training, instruction or information;

Personal Protective Equipment – Make sure that appropriate PPE is available and used correctly.



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