

Environmental Management Plan SDA Plumbing

PROJECT NAME:

ADDRESS:

DATE:

AUTHORISATION FOR ISSUE

This edition of the Environmental Management Plan Revision 1, is approved and authorised for issue by _____

SDA Plumbing

Doc Owner: SDA Manager	Authoriser: Technical Director	Rev No: 1
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Environmental Management Plan Induction Register

All members of the SDA Plumbing Team are to sign below acknowledging they have read and understood their roles and responsibilities documented within this Plan.

Name	Signature	Date

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1.0 Introduction

Many activities undertaken by SDA Plumbing can potentially impact on the local environment. The behaviour of all SDA Plumbing staff is critical to ensuring that we meet our obligations to conserve resources and reduce environmental impacts. Examples include, reducing energy and water usage, minimising waste generated by daily work activities in both the site office and construction site environments and contributing to recycling initiatives.

The EMP is based on AS/NZ ISO 14001:2004 Environmental Management System Standard, and has been prepared in compliance with the requirements of Section 4 of the *NSW Environmental Management System guideline (1998)*.

The EMP is aligned with the continuous improvement model illustrated below.



The structure of the EMP is:

Step 1	Overview & Responsibilities
Step 2	Planning/Scope of Work
Step 3	Legal Requirements
Step 4	Training & Communication
Step 5	Contractor & Supplier Management
Step 6	Reporting of Environmental Incidents
Step 7	Emergency Management
Step 8	Inspections
Step 9	Internal Audit

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1.1 Definitions

Environment	Surroundings in which an organisation operates including air, water, land, natural resources, flora, fauna, humans and their interrelation.	
Environmental Aspect	Elements of an organisations activities or products or services that can interact with the environment.	
Environmental Impact	Any change to the environment whether adverse or beneficial, wholly or partially resulting from organisations environmental aspects.	
Contractor	Any reference to contractor in this Plan means contractor, sub- contractor or suppliers.	
Construction Workers	Direct employees and those of contractors who perform trade and non-trade work on the project.	
Relevant Authority	When mentioned in this Plan, the relevant Authority refers to the:	
	Responsible State Occupational Health & Safety authority; or	
	Responsible State Environmental Protection Authority (EPA)	
Interested Party	Person or a group concerned with or affected by the environmental performance of an organisation.	
Internal Audit	Systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the environmental management system audit criteria set are fulfilled.	
Continual Improvement	Recurring process of enhancing the environmental management system in order to achieve improvements in overall performance consistent with the Environmental policy.	
Prevention of Pollution	Use of processes, practices, techniques, materials, services or energy to avoid, reduce or control the creation, emission or discharge of any type of pollutant waste, in order to reduce adverse environmental impacts.	

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1.2 Environmental Policy

Aim

SDA Plumbing is committed to conducting our business in an environmentally aware and responsible manner. We seek the co-operation of our workers and business partners in ensuring our organisational practices are conducted with minimal environmental impact.

Objective

To work with workers, contractors, visitors and business partners to achieve compatibility between economic development and the maintenance of the environment to minimise harm.

Policy

SDA Plumbing will endeavour to minimise impact on the following:

- Atmospheric emissions
- Site contamination and spills
- Noise Emission
- Damage to flora and fauna
- Storm water management
- Unnecessary energy consumption

To fulfil this commitment, SDA Plumbing, will observe all environment laws and promote environmental awareness among all workers to increase understanding of environmental matters.

SDA Plumbing will actively take part in the following:

- Assess Eco-footprint to identify environmental impacts and move towards more sustainable practices
- Identify waste streams and options for effective waste management
- Improve purchasing (buy recycled materials, reduce waste, use less harmful/volatile chemicals)
- Improve storage (reduce quantity, waste and spills, reduce odours by keeping containers closed)
- Conserve energy (eco-friendly lights, turn lights off, emergency efficient equipment, greener fuel sources such as LPG and methane)
- Conserve water (install water saving accessories, repair leaks)
- Preserve waterways (clearly mark and protect storm water drains)
- Emergency planning and spill response
- Seek appropriate licenses/permits from State Environmental Protection Agencies and other relevant Authorities
- Improve education/awareness
- Notify relevant authority in the event of a major environmental impact

References:

WHS Act and Regulations 2011 EPA Victoria – ECO footprint – Managing Impact on the Environment EPA Victoria – Sustainable Business and Industry WorkSafe Victoria – Sample Environmental Policy

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1.3 Objectives, Targets and Positive Performance Indicators

The following objectives and targets are designed to be measurable and practical, and include key performance indicators (KPIs) that define the variable to be monitored for each environmental impact.

The Environmental Risk Register and associated Environmental Control Plans list the proposed actions to minimise adverse impacts, to monitor the performance of these measures, reporting requirements and corrective action requirements.

Environmental objectives and targets are designed to facilitate monitoring and reporting on SDA Plumbing performance over time. However, in this respect it is noted that environmental obligations, risks, objectives and targets may change over the life of the project.

Objectives

- Reducing the likelihood of environmental incidents and associated business risks;
- Improving compliance with environmental legislation and policy; and thereby
- Improving our relationships with the local community, customers/clients and regulatory authorities through demonstration of responsible environmental practices.

Targets

- Statutory Notifiable Incidents = 0
- EPA Prohibition Notices = 0

Positive Performance Indicators

- 100% Environmental Inspections conducted against the inspection schedule.
- 100% Environmental Audits conducted against the audit schedule.
- Zero registered complaints resulting from unacceptable noise and/or dust levels
- Zero disturbance to flora and fauna outside site operational area
- Decline in volume of waste being generated
- Increase in volume of waste being recycled
- Spill incidents reported ASAP and rectified immediately = 100%
- Noncompliance with Australian Standards regarding storage and handling of hazardous substances = 0
- Occurrence of fire caused by Ignition sources on site = 0

1.4 Records

Records must be kept of all project specific correspondence, inspections, tests, records and data.

1.5 Monitoring and Reporting

The monitoring and reporting of the Environmental Objectives, Targets and Positive Performance indicators shall be report by WHS Consultant as required.

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1.6 Responsibilities

Personnel at all levels (Supervisor/s, Director/s, WHS Consultant and Workers) are accountable legally and otherwise for environmental performance, within the scope of their defined and inferred roles and responsibilities, including supporting the Environmental Management System.

The WHSE Manager is the person nominated to be responsible for ensuring SDA Plumbing EMP meets legislative requirements, is established and maintained and performance is reported in accordance with AS/NZS ISO 14001.

1.6.1 Project Manager

- Defining SDA Plumbing Environmental aspects, significant impacts, requirements, objectives, priorities and targets;
- Defining the roles, responsibilities and authorities of personnel for environmental management;
- Allocating sufficient human, physical and financial resources for environmental management and monitoring/measuring performance;
- Approve Environmental Management Plan;
- Ensuring compliance with environmental legislation, regulations and approval/permit and licensing conditions;
- Keeping abreast of changes in legislation and regulations;
- Authorisation and implementation of this Environmental Management Plan EMP;
- Responsible for implementing such measures as are approved following recommendation;
- Required in association with appropriate personnel to formulate and promulgate specific environmental rules for activities conducted within areas under their control;
- Responsible for reporting and investigating incidents that occur within areas under their control; and
- Responsible for reporting any member of staff or contractor working on site who, by refusal or neglect, fails to observe requirements.

1.6.2 WHSE Manager

- Responsible for advising Site Management on the overall state of environmental issues on site;
- Acquiring and communicating/disseminating environmental management information;
- Planning and conducting training in environmental management, including induction for new employees and refresher training;
- Developing and implementing appropriate procedures generally;
- Assessing service providers abilities to conform with environmental management requirements;
- Ensuring conformity with environmental management requirements;
- Ensuring the use of appropriate technology and management practices;
- Responsible for conducting/coordinating regular site inspections for the purpose of discovering unsafe or unsatisfactory conditions and practices and to ensure by all practicable means the observance of environmental standards;
- Reporting any unsafe or unsatisfactory conditions or practices discovered on these inspections;
- Ensuring that any environmental incidents are investigated and records kept as required; and
- Ensuring SDS are available at the point of use and registers with risk analysis are prepared and available for all workers using these substances.

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1.6.3 Project Supervisor

- Must assist the Risk Manager on a day to day basis to achieve the stated aims; and
- Must assist the Risk Manager with inspections and take action to rectify any nonconformance identified;
- Have regard to weather conditions when programming daily work activities;
- Participate in Environmental inspections if requested; and
- Must report any unsafe or unsatisfactory conditions or practices discovered to the Risk Manager.

1.6.4 External Environmental Management Consultants

- Develop an appropriate project specific Environmental Management Plan (EMP);
- Ensure that the EMP is communicated, implemented and maintained;
- Develop project specific Environmental Control Plans (ECP's)
- Develop project specific Environmental Risk Register
- Conduct monthly inspections and report to Site Management on the implementation and performance of Environmental Systems as detailed in EMP;
- Ensure environmental management practices reflect current industry best practice and comply with statutory requirements.; and
- Update project environmental risk register as required.

1.6.5 Site Workers (includes employees and subcontractors)

- While at work, must take all the care of which they are capable for their own environmental health and that of other people who may be affected by their conduct at the workplace;
- Must not willfully or recklessly interfere with or misuse anything provided in the interests of environmental care;
- Must not remove any item provided for environmental protection without permission from the site Risk Manager;
- Report all environmental incidents and non-conformances to the Risk Manager immediately;
- Follow instructions issued by SDA Plumbing Management and Supervisory Personnel; and
- Adhere to the EMP as it applies to their operations on the site;

1.6.6 Visitors

• All visitors are required to comply with all instructions given by authorised staff for the protection of environmental issues.

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2.0 Planning

This EMP has been developed to assist SDA Plumbing manage environmental performance and conformity with statutory requirements

2.1 Identified Environmental Factors

In identifying environmental risks, opportunities and impacts, SDA Plumbing shall consider whether any of the planned activities (including decisions) products and services relevant to the project will have any impact on the environment, including air, water or land, or involving waste, emissions, resource uses and physical attributes.

Ref:	Environmental Factors	References	Relevant
1	Hazardous Materials		\boxtimes
2	Waste Management – Contaminated Material		\boxtimes
3	Air Quality Management		
4	Environmental Noise		
5	Erosion & Sedimentation Control		
6	Vegetation Management		
	Site Specific/Other	References	
7	Project Name	Attachment 1: Site Plan	

The relevant environmental issues for Project Name are indicated in the table below:

Opportunities are identified to reduce or ovoid emissions, water misuse, land degradation and waste.

The environmental risks and controls specific to SDA Plumbing are outlined within the risk register

SDA Plumbing shall review the EMP yearly to ensure its continuing suitability. Changes to the EMP are communicated as appropriate.

2.2 Site Plan

The Site Plan shows delivery locations and recycling/waste facilities for this project.

2.3 Scope of Work

Plumbing

2.4 Environmental Risk Assessment

An environmental Risk Assessment has been undertaken to identify all aspects of construction that could have an environmental impact and assesses the potential risk and impact of that activity on the environment. Management controls have been devised to eliminate and/or minimise those identified impacts on the environment. Refer to 2.5 Environmental Risk Calculator.

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2.5	Environmental Risk Calculator	

Step) 1: De	etermine	Probability		Ste	ep 2: Determi	mine Consequences					Step 3: Calculate the Risk (Likelihood + Consequence = Level of Risk)						
	F	Probabil	ity		People			Business/ Environmenta	al	Likelihood								
		Likelihoo	bd		Consequent	ices Consequences					Α	В	С	D	E			
Α	Com occu reoc	nmon or urrence l ccur	Frequent ikely to	1	Fatality or perr disability	nanent	inent Extreme damage extreme business interruption. Irreversible environment impact				1	1E	ЗE	5E	7E	11E		
в	Has a ne reco	happene ear miss l orded	ed before or nas been	2	Serious Injury o (lost time)	or illness	High-level damage, significant business interruption. Serious environmental impact			ce	2	E2	E4	E8	S12	M16		
с	Coul hear the	ld occur rd of it h industry	or I have appening in	3	Disability or sh injury (lost time	ort term e)	Medium level damage, serious production disruption. Reversible environmental impact			uənbəsu	3	E6	E9	S13	M17	M20		
D	Not with indu	likely to hin the buustry	occur usiness or	4	Medical treatm	nent injury	Low proc envi	Ievel damage, slight duction disruption. Mino ironmental impact	r	3	4	S10	S14	M18	L21	L23		
E	Prac	ctically in	npossible	5	First Aid or no	injury	Neg proc envi	ligible damage, minimal duction disruption. No ironmental impact			5	S15	M19	L22	L24	L25		
			Key:					Re	esidual	Risk	Ratir	ng Action:						
1-	9	E	E	ktrem	e Risk	Rating 1 –	9	Extreme Risk	Imme	diate	acti	on require	d – redesig	n/review	1			
10 -	- 15	S	Sig	nifica	nt Risk	Rating 10 -	- 15 Significant Risk Cont			ols to	red	uce risk an	d monitori	ng requir	ed			
16 -	- 20	м	M	oderat	te Risk	Rating 16 -	· 20	Moderate Risk	Contr	ols to	red	uce risk an	d monitori	ng requir	ed			
21 -	- 25	L		Low F	Risk	Rating 21 -	- 25	Low Risk	Monit	tor as	req	uired						

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		Environmental Risk Reg	gister							
Aspect	Potential Impact(s)	Standard Controls	Likelihood	Consequence	Risk Rating	Site Specific Controls	Likelihood	Consequence	Risk Rating	Person/s Responsible
Administration and Office Activities	Consumption of natural resources	Waste paper and cardboard to be collected for recycling	С	4	M18	Ensure recycling bins are installed in the office area	D	4	L21	PM
	Depletion of non- renewable resources	Switch all non essential power off	С	4	M18	Switch of lights and computers overnight	D	4	L21	PM
Storage of Waste generated from site	Visual pollution	Covers fitted to all waste containers	С	4	M18	Monitor daily.	D	4	L21	PS
	Storm water pollution	Water run off to collection ponds	С	3	S13	Refer to project risk register.	С	4	M18	PS WHSE
Hazardous Materials To prevent the release of hazardous materials to the surrounding environment	Pollution of soils and waters due to spills of paints, fuels, greases and oils or other hazardous material	Incompatible materials to be stored in separate locations No hazardous substances or construction waste to be place in or near any waterways All spills and leaks shall be cleaned up immediately using spill kits provided All hazardous waste shall be disposed of by licensed contractors Small volumes (,200L) of fuels, oils and other hazardous materials will be stored within secure sheds or containers Spill trays will be used to contain hazardous materials where necessary All hazardous waste shall be disposed of by licensed contractors All machines will be serviced off site	с	2	E8	All hazardous materials to be approved by the Risk Manager prior to arriving on site No refueling of plant is to occur within 100m of any watercourses MATERIAL SAFETY DATA SHEETS for hazardous materials shall be kept on site Monitor daily. Refer Attachment 2: ECP001 Hazardous Substances	С	4	M18	PS WHSE NC EC ERC

2.6 Environmental Risk Register

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		Environmental Risk Reg	gister							
Aspect	Aspect Potential Impact(s) Standard Controls		Likelihood	Consequence	Risk Rating	Site Specific Controls	Likelihood	Consequence	Risk Rating	Person/s Responsible
Waste Management To ensure waste material is disposed of appropriately, and the site is maintained in a tidy state. Reuse of recycling of materials wherever possible To ensure contaminated sites are managed correctly	Pollution of on site and off site environments	Purchasing of materials shall consider type and quantity of packaging to minimize waste Materials with potential for re- use or recycling (e.g. steel) shall be separated and disposed of in recycle bins provided by the contractor Waste shall be stored in appropriate, secure, confined areas All waste oils or other hazardous materials shall be collected by a licensed contractor Waste shall not be burnt or buried – all waste is to be removed from site Recycling facilities for office and personal waste shall be used where available.	с	4	M18	An adequate number of rubbish and industrial bins shall be retained on site Monitor as required. Refer Attachment 2: ECP 002 Waste Management Attachment 3: EMPF001 Construction/Demolition Waste Management Plan Attachment 3: EMPF002 Purchasing Landscaping/Construction Recycling Report	С	5	L22	PS WHSE NC EC
Air Quality Management To prevent/ minimize potential impact of construction activity on air quality	Fumes that may have adverse effects external to the site	All equipment shall be efficient, operated appropriately, and maintained in good order Refueling of plant shall be by mobile tanker with appropriate safety and spill response equipment	С	4	M18	Engines shall not be left idling needlessly Monitor daily. Refer Attachment 2: ECP 003 Air Quality Management	С	5	L22	PS WHSE NC
	Odours that may have adverse effects external to the site	Materials that may generate fumes shall be stored and used appropriately Refueling of vehicles and plant shall be conducted in a location that will minimize potential effects from odours on adjoining premises (minimum 100m)	С	4	M18	Accidental spills shall be cleaned up immediately Amenities to be cleaned daily Monitor daily. Refer Attachment 2: ECP 003 Air Quality Management	D	4	L21	PS WHSE NC

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		Environmental Risk Reg	gister							
Aspect	Potential Impact(s)	Standard Controls	Likelihood	Consequence	Risk Rating	Site Specific Controls	Likelihood	Consequence	Risk Rating	Person/s Responsible
Air Quality Management continued	Dust that may have adverse effects external to the site	Additional dust suppression measures including regular watering etc Clearing and grubbing shall be undertaken in stages Rehabilitate or landscape the exposed area as soon as possible after completion Shaker grid or rock/gravel to be installed at access points where necessary	С	4	M18	Construction activities generating dust shall cease if prevention measures prove ineffective Access ways shall be maintained (watered) to ensure dust is not generated Monitor as required. Refer Attachment 2: ECP 003 Air Quality Management	C	5	L22	PS RM NC
Environmental Noise To prevent/ minimize the impact of noise on the local community during construction activities	Nuisance noise generated by construction activities affecting the local community	Acoustic shielding shall be fitted to plant where necessary Physical noise barriers shall be installed wherever necessary (eg earth mounds or screens) Radio or lighting devices shall be used for control of site operation wherever possible (i.e. minimized us of sirens/whistles) Plant and equipment shall be maintained in good working order Machines that are used intermittently shall be shut down in intervening periods Surrounding community shall be considered when programming noise intensive activities	С	4	M18	Limit hours of operation 7am-6pm Monday – Saturday. No activity Sunday or public holidays. Monitor daily. Refer Attachment 2: ECP 004 Air Quality - Noise	С	5	L22	PS WHSE NC EC

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	Environmental Risk Register									
Aspect	Potential Impact(s)	Standard Controls	Likelihood	Consequence	Risk Rating	Site Specific Controls	Likelihood	Consequence	Risk Rating	Person/s Responsible
Erosion & Sedimentation Control To prevent/ minimize the impact of construction activity on erosion or sedimentation in waterways external to the work site	Soil erosion, sediment transport and deposition, and the associated transport of contaminants to external waterways	Limit the area exposed to erosion by not clearing and grubbing the entire area at the beginning of the work – clear and grub the area required to perform current work activity before commencement Containment measures shall be installed as soon as practical following disturbance to the area Water is to be diverted around disturbed areas using stockpiled topsoil to form a catch bank Area to be rehabilitated as soon as possible on completion of work	В	2	E4	Control measures to be considered include sand bags, silt fence/socks, diversion drains, gravel and revegetation Monitor daily Conduct weekly environmental checks Conduct monthly environmental management inspections and report outcomes Refer Attachment 2: ECP 005 Erosion and Sedimentation Attachment 3: EMPF003 Erosion & Sedimentation Control Plan	С	3	S13	PS WHSE NC EC ERC
	Water quality	Containment controls shall be installed as soon as practical following disturbance in each area in accordance with approved construction drawings and environmental requirements	В	2	E4	Silt fencing, v-drains or rock checks to be installed down grade from pads. Refer Attachment 2: ECP 005 Erosion & Sedimentation	С	3	S13	PS WHSE NC EC
Vegetation Management To prevent or minimize the impact of construction activities on flora and fauna	Un-necessary loss of flora and fauna habitat Physical harm to flora and fauna	The Project/Project Supervisor to identify the areas to be cleared Management of cleared vegetation will be under the direction of the Project Supervisor All vehicles to be weed free before entering site – inspect thoroughly prior to entering worksite Clear identification (flagging) of vegetation to be retained Installation of barriers at the drip line of retained vegetation Minimization of clearing across the site	С	4	M18	No construction activity or store of machines/materials in restricted areas and ensure that vehicles or machinery brought onto site are free of weed Inspect trenches, culverts and other work areas for fauna prior to commencing work Inspection of area before removal, separation and appropriate disposal of weed species prior to spreading any soil to clean area Monitor as required Refer Attachment 2: ECP 006 Vegetation Management	D	5	L24	PS WHSE NC

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3.0 Legal Requirements

3.1 Licences and Approvals

The Project Manager will ensure at all times throughout construction works that all necessary legal, statutory and client permit approvals are obtained including those required for new or changed work methods. The Project Manager needs to ensure that all work carried out under a legal, statutory or client permit approval(s) is done so within its (their) guidelines.

Records of all legal, statutory and client permit approvals and relevant correspondence is to be maintained by SDA Plumbing and made available to workers on request.

3.2 Instructions for Obtaining Approvals and Licences

	STRATEGY/CONTROL MEASURE	RESPONSIBILITY	TIMING/FREQUENCY
Obta cons	ain all licences and approvals required for the struction of works including as necessary:		
•	Environmental Authority licences of any temporary infrastructure or facilities	Project Manager	Before commencement of project or on site
•	Any Authorities and approvals from the relevant authority in respect to dangerous goods and hazardous materials on site.	Risk Manager	Before removing from site or bringing materials on site
•	Any approvals from the relevant authority in respect of traffic management and works in roads.	Project Manager	Before commencement of these works
•	Any approvals from SDA Plumbing in respect to bringing equipment on site and the cleaning of equipment to ensure it is pest and weed free upon entering the site.	Project Manager/ Risk Manager	Before bringing each item of plant or equipment on site
•	Any authorities and approvals from the relevant authorities in respect to the transportation and disposal of site material wastes, chemicals and liquid wastes off-site.	Project Manager/ Risk Manager	Before transportation and disposal of the waste materials

3.3 Acts and Regulations

Relevant to project:

- Environmental Protection Authority Act 2011
- Australian Institute of Petroleum Code of Practice 22 1994
- Australian Standard 1940 The storage and handling of Flammable and Combustible Liquids 2004

4.0 Training and Communication

• The Project Manager in conjunction with the Project Supervisor must ensure that relevant personnel (particularly the Risk Manager and Leading Hand) are trained into the requirements of this EMP including all associated plans and forms.

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- Training and environmental awareness of all site personnel is initiated via the site induction. A site induction program has been established. Records must be kept of all site inductions.
- Where high-risk hazards are identified, detailed training must be arranged to ensure personnel fully understand the environmental hazards and risks associated with that specific work activity. This will be carried out by training the personnel involved into the environmental risk control register and a record of this training must be maintained.

4.1 Means of Communication

- Inductions
- Toolbox meetings
- Training sessions
- Informal events (e.g. Barbecues)
- Email

5.0 Contractor and Supplier Management

SDA Plumbing shall include main contractors and suppliers in the EMP induction prior to work commencing on site. A copy of the EMP Risk Register and site plan (if applicable) shall be sent out with all contracts.

5.1 Purchasing

SDA Plumbing shall ensure that purchased product conforms to specified requirements and where practicable, hazardous substances are to be substituted for a less hazardous product with a lower environmental impact.

6.0 Reporting of Environmental Incidents

- All incidents are to be reported to the appropriate supervisor as soon as the incident is identified (SDA-WHS-17 Incident Notification);
- All significant environmental incidents will be recorded and reported to the relevant authority by the Project or Risk Manager.
- All Incidents will be investigated to improve systems and prevent recurrences.

The Project Manager is responsible to coordinate any necessary containment and remediation measures in consultation with the Risk Manager.

Regular checks by the Project Supervisor and routine inspections by the Risk Manager and external consultants will ensure prompt reporting and remediation of any problems.

6.1 Reporting of a 'pollution incident' to regulatory authorities

The Project Manager is responsible for reporting a "pollution incident" which may pose "material environmental harm" to the appropriate authorities.

A "pollution incident" is defined as:

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"An incident, or set of circumstances, where has been, or is likely to be, a leak, spill or other escape of a substance, where pollution has occurred, is occurring, or is likely to occur. A pollution incident includes unlawful disposal of waste, but does not include an incident or set of circumstances involving only the emission of any noise or odour."

"Material Environmental Harm" is defined as:

(i) Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or

(ii) Actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$5,000 (or such other amount as is prescribed by the regulations)

The Environmental Protection Authority is the notifiable authority where the activity is operating under an "Environmental Authority" issued by the Department of Territory and Municipal Services.

Contact Details:

5 Crispe Street

Alice Springs NT 0870

Phone: (08) 89524344

7.0 Emergency Pollution Management

7.1 Initial Assessment

An initial assessment is to be made of the situation by the Risk Manager; in particular what needs to be done to contain the spill and what resources will be required to carry out this containment.

7.2 Contacts

Contact the Project and Project Supervisor immediately and advise of the situation for technical advice and support.

7.3 On Site Containment

If the spill can be dealt with by on-site resources, SDA Plumbing shall co-ordinate the response. If containment is regarded to be outside the capacity of the on-site resources, contact the EPA (Note: if some doubt exists, the Emergency Services should be called as a precautionary measure).

7.4 Emergency Services

If an emergency service is required to attend the scene, they will assume control of the situation. SDA Plumbing staff and nominated subcontractors will assist the emergency service as requested.

7.5 Access and Egress Control

Access and egress control to the area is to be established to ensure that the appropriate vehicles have effective access and congestion is minimized. Emergency services vehicles shall have 'right of way' at all times.

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7.6 Log of Events/Complaints

A log of events is to be maintained for record purposes, including actions, personnel and timing. Complaints shall also be recorded and reviewed during management meetings.

7.7 Investigation Report

A full investigation report of the event is to be completed by the Risk manager in conjunction with qualified external consultants as soon as practicable after the situation has been stabilised (SDA-WHS-27 Incident Investigation Report).

7.8 Recommendations

Recommendations to prevent recurrence are to be acted on in accordance with the timing identified within the investigation report. Records are to be maintained.

7.9 Discovery of Contaminated Materials/Contamination of Materials

In the event of contaminated materials being discovered on the site or contamination of materials on the site the Risk Manager shall ensure the set action procedure (in accordance with the project environmental risk register) for the particular situation is followed. The Risk Manager will also ensure all site supervisory personnel are familiar with this procedure, and that all steps are taken when the need arises.

7.10 Performance Monitoring and Review

SDA Plumbing is responsible for developing monitoring, inspection and internal audit procedures to ensure the effectiveness of the Environmental Management System. These procedures shall identify if contingency plans and remedial or corrective action plans need to be developed to prevent incidents or address issues as a result of inspections, monitoring and reviews.

Currently the primary means of identifying potential issues and hazards is via the risk assessment process which has led to the development of the project risk register and Environmental Control Plans (ECP's).

The incident reporting procedure implemented in the operational stage will contribute to the continuous improvement process. The project environmental risk register will be reviewed and updated regularly based on performance. Persons responsible for the various practices and procedures specified in the following tables are as follows:

Action	Day to Day Monitoring	Weekly Monitoring	
EMP Issues	PS/NC/WHSE	PS/WHSE	
Operations – manage	PS/NC/WHSE	PS/WHSE	
Operations – implementation	PS/NC	PS/WHSE/NC	
Monitor	PS/WHSE	PS/WHSE	
Reporting	WHSE	WHSE to PS/PM	
Audit	PS/WHSE	RM/EC	

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Action	Day to Day Monitoring	Weekly Monitoring
Instruct	PS to WHSE	WHEE to NC and EC
	WHSE to NC	

Кеу			
PM	Project Manager	EC	Environmental Consultant
PS	Project Supervisor	NC	Nominated Contractor
WHSE	WHSE Manager	ERC	Emergency Response Coordinator

8.0 Inspections

- Formal Environmental Inspections must be conducted as required as an "Environmental Walk". This walk will identify potential environmental risk/hazards and suggested action items (*SDA-WHS-ENV-03 Environmental Inspection Checklist*).
- Inspections should be RANDOM (i.e. Different day/time each week) to ensure Environmental awareness.
- The Project Supervisor/WHSE Manager will undertake these inspections on all new development projects layouts over a 3 days period.
- If any rectification or maintenance is required or carried out this will be documented on the inspection checklist.
- External inspections/audits shall be carried out by external environmental consultants as required (SDA-WHS-ENV-02 Environmental Inspection Record).
- An Environmental Management Plan Report is prepared by the consultants and submitted to the site management for review during site management meetings as required.

8.1 Non Conformance, Corrective & Preventative Action

The Project Supervisor in consultation with the Risk Manager is responsible to determine what actions need to be taken to address (mitigate) the problem, what changes need to be made to correct the situation (to restore to normal conditions) and what should be done to prevent the problem from recurring (to eliminate the cause).

The timing of recommended corrective actions shall be appropriate to the nature and scale of the nonconformity and the environmental impact

The Project Supervisor is responsible to ensure that corrective and preventative actions have been implemented, and that there is systematic follow up to ensure their effectiveness.

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9.0 Internal Audit

Environmental Audits will be conducted yearly by external consultants to verify compliance with the EMP, associated risk register and ECP's (SDA-WHS-ENV-02 Environmental Inspection Record).

The EMP will be regularly reviewed to maintain its suitability and effectiveness. Reviews will be undertaken as follows:

- As a minimum, annually, in accordance with SDA Plumbing Requirements;
- If required, as a corrective and/or preventative action in response to an environmental incident or the outcomes of an environmental audit;
- As requested by the Risk Manager should he deem that a review is required, based on an environmental incident or other such relevant event; and
- Where requested or required by the EPA or any other statutory authority.

10.0 Attachments

- 1 SDA-WHS-ENV-02 Environmental Inspection Record
- 2 SDA-WHS-ENV-03 Environmental Inspection Checklist
- 3 SDA-WHS- 26 Incident Notification
- 4 SDA-WHS- 27 Incident Investigation Report

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