

**Environmental Management System** 

5R Solutions Pty Ltd Plate and Laminated Glass Recycling Facility 2115-2131 Castlereagh Road Penrith

Updated 25 July 2017



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#### 1 Introduction

This Environmental Management System (EMS) applies to operational activities at the 5R Solutions Plate and Laminated Glass Recycling Facility located at 2115-2131 Castlereagh Road, Penrith NSW (the Facility). It provides the scope and context of the EMS and outlines the purpose and approach to the overall EMS and each of its individual elements.

This manual is consistent with the 5R Solutions Environmental Policy and aligns with the environmental management system standard AS/NZ ISO14001. It provides an overarching framework for the effective environmental management of the Penrith Facility.

#### 1.1 Objectives

The key objectives for implementing an EMS is to establish a systematic process to:

- Meet, legal and policy requirements;
- Manage compliance with legal and statutory requirements under Environment Protection Licence agreements and conditions of consent under the Development Application;
- Identify and prioritise significant environmental aspects, their risks and their management;
- Monitor and improve environmental performance and be adapted to (or integrated with) other systems such as WHS and QMS;
- Allocate team responsibilities in managing the facility with the necessary information, procedures and processes to successfully perform their duties; and
- Provide surety to stakeholders (NSW EPA, Council, staff, adjoining businesses) of environmental performance.

### 1.2 5R Solutions Environmental Policy

	Environmental Policy 2015
the bu	lutions, as an active participant in the recycling sector with recovery of recyclables as the basis usiness, strongly believes in making the environmental message a core component in its short a term objectives and plans.
	rive to manage and operate the business such that the following actions are embedded into the ess at all levels.
	<ul> <li>A commitment to continuous improvement, in all facets.</li> </ul>
	<ul> <li>A recognition of compliance with relevant environmental legislation as a minimum level of</li> </ul>
	performance
	The education and training of employees in environmental issues and the environmental effect
	of their activities
	<ul> <li>Monitoring of progress and review of environmental performance on a regular basis (usually</li> </ul>
	annually)
	<ul> <li>Minimising transport costs and resultant carbon footprint through efficient planning and</li> </ul>
	customisation.
	<ul> <li>Minimising waste to landfill as a result of our processing systems and reducing at source.</li> </ul>
	<ul> <li>Engaging in extended producer responsibility/product stewardship education to increase level</li> </ul>
	of recycling.
	<ul> <li>Efficient use of water and energy in all areas of operation.</li> </ul>
	<ul> <li>Minimising use of solvents and lead-based paints in any part of operation and managing</li> </ul>
	appropriate disposal.
	<ul> <li>Procedures to minimise noise and dust disturbance to neighbours.</li> </ul>
	<ul> <li>Management of potential hazards to environment due to mishap or accidental discharge (spill</li> </ul>
	systems and training).
Signe	d

#### 2 Planning the EMS

The primary objective of the planning stage is to prioritise resources and allocate responsibilities to ensure that external constraints and requirements are addressed and the key environmental issues associated with activities that occur within the facility are managed.

#### 2.1 Environmental Aspects and Impacts Assessment

Table 2.1 provides as summary of the potential environmental impacts of the site and the summary of effects.

Table 2.1 Environmental Aspects and Impacts Assessment
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Potential Environmental Issue	vironmental Description of Potential Environmental Issues	
Flooding	The area is not known to be in flood area.	Low
Heritage	e The site is Zoned 'IN1 General Industrial', and no aboriginal heritage or items of cultural heritage significance are known to be present on the site.	
Noise and vibration	<ul> <li>Noise sources associated with the development include: <ul> <li>vehicles delivering skip bins of glass to the site for sorting and recycling;</li> <li>tipping of skip bins of glass onto the indoor receival area associated in the warehouse;</li> <li>sorting and removal of contaminants;</li> <li>placement of contaminants into metal skip bins in the warehouse;</li> <li>crushing of glass;</li> <li>screening of glass;</li> <li>loading of crushed and screened glass into bags or containers on site;</li> <li>loading of vehicles to transport bagged glass from facility and transport to market.</li> </ul> </li> <li>Noise from unloading of glass for sorting in the factory unit, and operation of processing equipment in the factory unit is expected to be minimal, as these operations will be contained within the factory warehouse.</li> </ul> The development is expected to fully comply with the NSW EPA's Industrial Noise Policy. Noise and vibrations will be managed to meet Safe Work NSW requirements.	Moderate
Dust	<ul> <li>Dust sources associated with the development include:</li> <li>tipping of skip bins of glass into the materials receivals area of the warehouse factory;</li> <li>crushing of glass;</li> <li>screening of crushed glass;</li> <li>bagging of crushed glass or on loading of containers with crushed glass material.</li> </ul>	Moderate
Odour	Dust to be controlled by a fully integrated dust collection system. Odours are not expected from the facility, as only dry, non-putrescible waste will be received.	Low
Air pollution	Exhaust from mobile equipment, including the outdoor and indoor machinery will	
Sewage	wage There will be an existing sewer service on site to service toilet facilities.	
Water and stormwater	All outdoor operations associated with the development will be performed inside the factory warehouse environment. Rainwater will not come into contact with glass materials, which could contaminate stormwater leaving the site. The outdoor hardstand area will be kept clean, free of waste and litter to avoid any impacts on stormwater. Recycled materials will be stored indoors, and covered, to avoid any rainfall contact with the recycled glass.	Low

Potential Environmental	Description of Potential Environmental Issues	Risk Rating
Issue	Description of Potential Environmental issues	KISK Kating
	Chemicals will be appropriately stored within the factory unit in correct bunding to avoid spills which could impact on stormwater.	
	The floor of the factory unit will be kept as clean as possible to avoid any tracking of dust or soil onto outdoor hardstand areas, internal roads and public roads.	
Waste	The facility will receive approximately 30,000 tonnes of recovered glass for recycling each year. Close to 100% of all incoming glass will be sorted and recycled. Residual waste, such as contaminants and plastics, will be stored in a skip bin within the factory unit, and disposed at an EPA licensed disposal facility as required.	Moderate
Transport and traffic	A small numbers of truck movements to and from the facility are expected as a result of the development. It is expected that up to 8-16 truck movements will occur on the site per day associated with recovered glass deliveries and transport of processed glass from the site for off-site reuse and recycling. Vehicles will enter and exit the factory warehouse in the forward direction.	Low
Fire	<ul> <li>No land associated with the development is bush fire affected.</li> <li>Fire is not considered a potential environmental issue on the site as glass is not combustible when in contact with heat and/or an ignition source. Strict site security and after hours monitoring of the facility via contract security services will help to minimise risk of arson.</li> <li>A fire suppression system will be maintained in the factory to fully comply with the Building Code of Australia.</li> </ul>	Low

#### 2.2 Environmental Management Plans

Environmental management plans have been prepared for the site to ensure that appropriate environmental management practices are following during the operational phase of the Facility and ensure:

- Application of best practice environmental management;
- Implementation of the Facility's conditions of approval;
- Compliance with environmental legislation; and
- The environmental risk associated with the facility, as identified above, are properly managed.

Environmental Management Plan	Purpose of the Plan		
Procedure for non-conforming waste	<ul> <li>To ensure that non-conforming waste (waste that does not meet the NSW EPA classification of <i>General waste – non-putrescible</i>) is not received at the site</li> <li>If non-conforming waste is found on the site, to ensure it is managed in a way that minimises harm to human health and the environment</li> </ul>		
Procedure for Stormwater Pollution Prevention	<ul> <li>To ensure that the stormwater system functions effectively</li> <li>To ensure that the quality of receiving watercourses and rivers is not impacted by stormwater from the site.</li> </ul>		
Procedure for dust and litter minimisation	<ul> <li>To ensure that no dust leaves the facility</li> <li>To ensure that no litter escapes the facility</li> </ul>		
Procedure for minimising noise pollution	<ul> <li>To ensure that noise pollution is minimised on the site and the facility fully complies with the EPA's Industrial Noise Policy</li> </ul>		
Procedure for Traffic Management	• To ensure the safe movement of vehicular and pedestrian traffic, the protection of workers from passing traffic and to minimise conflict between vehicles accessing properties located within the limits of the Facility		
Pollution Incident Response Management Plan	<ul> <li>Ensure comprehensive and timely communication about a pollution incident to staff, EPA, authorities and other stakeholders</li> <li>Minimise and control the risk of a pollution incident by identifying risks and planning actions to minimise and manage them</li> <li>Ensure that the plan is properly implemented by nominated trained staff, and regularly tested</li> </ul>		

#### Table 2.2 Environmental Management Plan Register

#### 2.3 Legal Requirements

This section applies to activities which 5R Solutions can be held responsible for and includes:

- Requirements stipulated in legislation, including regulatory requirements, codes of practice and industry standards at a National, State and Local government level;
- Requirements stipulated in corporate standards; and .
- Other environmental requirements as required generally. •

Management shall also access and review appropriate sources of information (at least annually) and identify significant changes in legal requirements related to environmental aspects. These sources of information may include:

- Lawlex Legislation Service; •
- Publications relevant to the waste industry; •
- **Environment Manager Magazine;** •
- NSW EPA news bulletins; •
- Department of Planning and Environment publications; and •
- Direct notification by Commonwealth and State Government Departments. •

Management shall maintain summaries of legal requirements related to the Operations and environmental aspects. Such summaries shall be updated at least every 12 months by a competent person.

Legislation	Associated regulations	General intent	Relevance to 5R Solutions
Protection of the Environment Operations Act 1997	<ul> <li>Protection of the Environment Operations (General) Regulation 2009</li> <li>Protection of the Environment Operations (Clean Air) Regulation 2010</li> <li>Protection of the Environment Operations (Noise Control) Regulation 2008</li> <li>Protection of the Environment Operations (Waste) Regulation 2014</li> </ul>	To enhance the quality of the environment in NSW.	Outlines requirements for a range of activities related to waste facilities including licensing, monitoring and reporting and Resource Recovery Orders and Exemptions
Waste Avoidance and Resource Recovery Act 2001		Minimise the consumption of natural resources and the final disposal of waste and achieve integrated waste and resource management planning.	The operation of the Facility must uphold principles of ecologically sustainable development and focus on waste minimisation and resource recovery over disposal.
Environmental Planning and Assessment Act 1979	Environmental Planning and Assessment Regulation 2000	Encourage the proper management, development and conservation of natural and artificial resources and protection of the environment.	Determines the development approval process.
State Environmental Planning Policy (Infrastructure) 2007	-	Identifies the environmental assessment category into which different types of	Determines the development approval process.

Legislation	Associated regulations	General intent	Relevance to 5R Solutions
		infrastructure and services development fall (including identifying certain development of minimal environmental impact as exempt development).	
Penrith Local Environmental Plan 2010		Provides the local planning and legislative framework for the development. Outlines the approval process and identify the applicable local planning controls that relate to the proposed development.	Determines the development approval process.
Work Health and Safety Act 2011	Work Health and Safety Regulation 2011	To secure and promote the health, safety and welfare of people at work.	The operations must provide a safe work environment.
Environmentally Hazardous Chemicals Act 1985	Environmentally Hazardous Chemicals Regulation 2008	Control of activities related to chemical waste.	Influences waste permissibility.
Public Health Act 1991	-	To increase the standard of health in NSW.	Outlines requirements for safe drinking water.
Water Management Act 2000	-	To protect, enhance and restore water, associated ecosystems and water quality.	Effects of the facility and waste operations must be managed.

#### 3 Implementing the EMS

The primary objective of the implementation and operation stage is to ensure that the support processes are in place to manage environmental risk.

#### **3.1** Roles and Responsibilities

Personnel have allocated responsibilities under this EMS. These responsibilities relate predominantly to overall accountability, setting and maintaining strategic direction, allocation of resources, provision of business support services and management review. These are summarised below:

#### 5R Solutions - General Manager

Under this EMS, the General Manager is accountable for:

- Corporate environmental commitment for the facility;
- Endorsing the Environmental Policy; and
- Ensuring the availability of resources to implement the EMS.

#### 5R Solutions – Operations Manager

Under this EMS, the Operations Manager is accountable for:

- Implementation of the Environmental Policy;
- Establishment, maintenance and implementation of the EMS and its procedures;
- Establishment, maintenance and implementation of the PIRMP;
- Reporting environmental performance against the EMS to the General Manager; and
- Management of allocated resources to implement and maintain the EMS.

#### 5R Solutions – Employees

Under this EMS, the Employees are accountable for:

- Implementation of the Environmental Policy (as applicable);
- Implementation of the EMS and its procedures (as applicable); and
- Implementation of the PIRMP (as applicable).

#### **3.2** Training and Awareness

The management of training within 5R Solutions generally incorporates the following elements.

#### 3.2.1 General Induction Training

The general induction is general training that incorporates the WHS requirements for the relevant position. Contractor personnel are required to undertake this WHS training. The induction training is to be delivered by the Operations Manager. This training will be specific to the individual role of the staff member and will require a detailed review and acceptance of these documented procedures. The specific induction is to include but not be limited to:

- Safety and operating procedures and the correct identification of environmental hazards;
- Operation of plant and equipment;
- Identification of wastes;
- Accurate data recording; and
- Emergency Response Plan as outlined in this EMS.
- pollution incident response management plan.

#### 3.2.2 General environmental awareness

All employees and contractor personnel shall receive Environmental Awareness training. The general Environmental Awareness Training program shall include the following:

- The Environmental Policy;
- Sensitive environments and neighbours around their work area;
- Significant Environmental Activities;
- Site Legal and other requirements; and
- EMS non-conformance reporting requirements.

#### 3.2.3 EMS Induction Training

All employees shall undergo EMS induction training which comprises:

- Overview of the EMS manual;
- EMS objectives and targets;
- Environmental Management Plans and their responsibilities under their EMS; and
- Reporting the status of their actions under the EMS.

#### 3.2.4 Ongoing training

The ongoing competency and training requirements will be reviewed on an annual or as-needs basis depending on staffing at the site and triggers for ongoing training such as:

- Changes in procedures;
- Changes in regulations;
- Equipment upgrades or changes in equipment;
- Errors or deficiencies in job performance; and
- Errors in data reporting.

#### 3.3 Communication

#### 3.3.1 Internal Communications

The minimum internal communications required to administer, maintain and update the EMS is outlined in Table 3.1.

Table 3.1 Minimum internal communications

Position	Internal communications with:		
General Manager	<ul> <li>Operations Manager         <ul> <li>Promote Environmental Policy</li> <li>Performance against the EMS Objectives and Targets</li> <li>EMS and compliance audit results</li> </ul> </li> </ul>		
Operations Manager	<ul> <li>General Manager:         <ul> <li>Consult and obtain approval for Objectives and Targets</li> <li>Immediate notification of pollution incidents of material harm to the environment</li> <li>Annual reporting on:                 <ul> <li>Performance against the EMS Objectives and Targets</li> <li>EMS and compliance audit results</li> <li>Quarterly reporting on:                     <ul> <li>Performance against the EMS Objectives and Targets</li></ul></li></ul></li></ul></li></ul>		
	<ul> <li>Operational Staff         <ul> <li>Leading the EMS Management Review</li> <li>Liaison and annual update of EMS and EMPs</li> </ul> </li> </ul>		
Operator/contractors	<ul> <li>Operations Manager         <ul> <li>Immediate notification of pollution incidents of mate harm to the environment</li> <li>Notification of non-material of pollution incidents within hours of occurrence</li> <li>Monthly reporting on:                 <ul> <li>Pollution incidents and status of incident closur</li> <li>Progress implementing the EMS</li> <li>Corrective actions arising from site inspections a other surveillance</li> <li>Net in the inspection of a status of incident in the inspection of a status of incident inspections a status of incident inspections a status of inspectins a status of inspections a stat</li></ul></li></ul></li></ul>		

#### 3.3.2 External Communications

All external communications must be undertaken in accordance with 5R Solutions corporate protocols on communications with stakeholders and the media.

The minimum external communications required to administer, maintain and update the EMS and personnel responsible for the communication is outlined in Table 3.2.

Table	3.2.	Minimum	external	communications.
Idoic			CALCULIA	communications

Message type/frequency	Responsibility allocated to:	Method of communication:
Media response, media releases and/or material pollution incidents (As required)	General Manager	Telephone, email, letter. Media release website
Licence Monitoring Data (as required)	Operations Manager	website
Notification to regulators and emergency response of material pollution incident (as required)	General Manager / Operations Manager	As per PIRMP
Notification to stakeholders of non- material pollution incident (as required)	General Manager / Operations Manager	Telephone, email, letter, website
Response to community complaints and/or non- material pollution incidents	General Manager / Operations Manager	Telephone, email, letter.

#### 3.3.3 Community complaints

Community complaints relating to the Facility can be received via:

- The complaints hot line and recorded on the Complaints Register;
- Telephone or in person at the Facility; or
- Informally via telephone or in person to other employees of the Facility. Informal complaints should be recorded by the employee receiving the complaints on the Complaints Register

All complaints should be directed to the Operations Manager for monitoring and allocation of resources to contact the complainant. Where a compliant cannot be resolved within 24 hours (working day), an Incident, Near-miss and Non-conformance Report shall be initiated and recorded on the Incident, Near-miss and Non-conformance Register.

#### 3.4 Documentation Control

The following documents are controlled EMS documents controlled by Operations Manager:

- The EMS;
- Environmental Management Plans
- Forms, templates and proformas;
- Registers;
- Progress reports;
- Monitoring data;
- Annual progress report to management; and
- Statutory monitoring and reporting.

#### 3.4.1 Document Control Procedure

The current versions of all EMS Documents are available as read-only documents (link).

Only the current, electronic versions of EMS Documents accessed through the above link are controlled. If using hard copies of EMS Documents, it is the users' responsibility to ensure that they are using the latest version. All hard copies are uncontrolled.

The Operations Manager is responsible for the storage, review and update of all controlled EMS documents.

The Operations Manager will maintain a Register of Current Version of EMS documents. The Register will record Document Title, Current Version Number and Date current version was made effective.

The Operations Manager will ensure that each controlled document is appropriated tagged with Document Title, Current Version Number and Date current version was made effective. In addition, a summary of each revision will be documented in the revision history table on each controlled document.

#### 3.5 Operational and Preventative Maintenance

Monthly housekeeping and preventative maintenance inspections will be conducted which will include observed conditions and the effectiveness of preventative measures to control environmental hazards.

Maintenance Measure	Action	Timing
Housekeeping	<ul> <li>Housekeeping checks includes the following environmental issues: <ul> <li>Chemical and fuel bunding;</li> <li>Spill clean-up and spill kit equipment contents;</li> <li>Waste container labelling;</li> <li>Road and vehicle cleanliness;</li> <li>Unusual noises;</li> <li>Visual dust presence of significance;</li> <li>Identifiable odour presence of significance</li> <li>Segregation of wastes types</li> <li>Drainage system blockages</li> </ul> </li> </ul>	Monthly
Preventative Maintenance	<ul> <li>Preventative maintenance to capture:</li> <li>Fixed air, noise, vibration and fire suppression systems Suppression Systems</li> <li>Water spays and lines</li> <li>Spill Kits</li> <li>Dust Extraction Units</li> <li>Plant automotive fluids;</li> <li>Liaison with plant operators regarding plant condition/problems.</li> </ul>	Monthly

#### 3.6 Emergency Preparedness and Response

5R Solutions adopts the same definition of a pollution incident as the POEO Act which is:

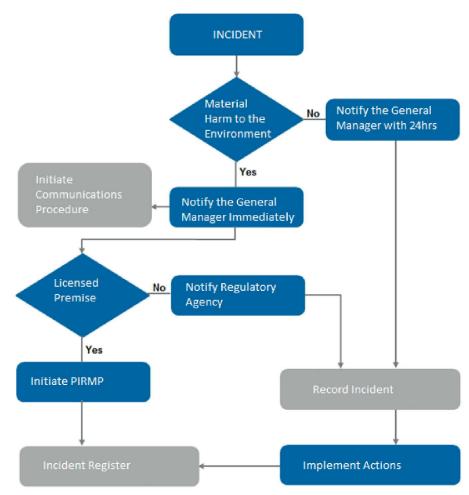
"Pollution incident means an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur."

The following documents include identification of emergency situations that have the potential to impact the environment and measures to prevent, respond to and mitigate such impacts.

- Procedure for Non-Conforming Waste
- Procedure for Stormwater Pollution Prevention
- Procedure for Dust and Litter Minimisation
- Procedure for Minimising Noise Pollution
- Procedure for Traffic Management
- Pollution Incident Response Management Plan

Collectively, these documents are known as the Facility's Emergency Response Plans and are attachments to the EMS.

#### Figure 3. 1 Emergency Preparedness and Response Procedure



#### 4 Checking the EMS

The primary objective of the checking and corrective action stage is to monitor the implementation and effectiveness of the environmental actions identified by the EMS planning and implementation documentation and identifies corrective actions where necessary.

#### 4.1 Evaluation of Compliance

Non-conformances relating to the Facility activities and the EMS include the following:

- An incident or near miss with actual or the potential for environmental impact;
- An incident or near miss with actual or the potential for environmental compliance impact with legal requirements;
- A non-conformance with the EMS requirements described in the EMPs or other environmental directives;
- Non-conformances generated from monitoring and auditing the EMS and EMPs
- Significant failure to implement mitigation measures; and
- Complaints not resolved within 24 hours.

The Operations Manager, personnel and associated contractors shall be trained into what constitutes a non-conformance and how non-conformance are to be managed.

Non-conformances are to be reported to the Operations Manager who is responsible for the following:

The Operations Manager must:

- Notify the General Manager of the non-conformance in accordance with the timeframe stipulated on the form;
- Implement the corrective actions determined as part of the process; and
- Report to the General Manager on progress and when the corrective actions have been closed out.

Where corrective actions are beyond the control of the Operations Manager, these corrective actions are to be drawn to the attention of the General Manager for support.

The General Manager must:

- Enter the non-conformance on the non-conformance register for tracking;
- Provide support to the supervisor when corrective actions are beyond the control of the supervisor;
- Monitor progress and close out corrective actions on the register; and
- Undertake targeted inspections to verify close out corrective actions.

#### 4.1.1 Review of Environmental Impacts and Management Plans

The Operations Manager/General Manager shall determine whether the activity generating the noncompliance warrants a re-evaluation of the risk it presents to the environment and associated management plans.

### 4.2 Auditing the EMS and Associated Plans

Table 4.1 provides a schedule for auditing the EMS and associated documents.

#### Table 4.1 Audit Schedule

Audit Document	January	February	March	April	May	June	July	August	September	October	November	December
Environmental Management System Audit (Internal)						~						
Environmental Management System Audit (External)						√						
Performance of EMS and EMPS of EMS (Internal)	~	~	~	~	~	~	~	~	~	~	~	~
Compliance with EPL (External)			~									
Achieving objectives and targets									~			
Pollution Incident Response Management Plan <sup>1</sup>			~									

<sup>&</sup>lt;sup>1</sup> a review of the PIRMP is required to be completed within 30 days of a pollution incident.

#### 5 Adjusting the EMS

The process is established to facilitate improvement of the EMS through periodic formal review and discussion of EMS performance to determine whether the EMS remains suitable, adequate and effective for the Facility. Consequently, this EMS is a working document that is designed to ensure any changes that could affect an environmental incident are captured.

#### 5.1 Management Review and Updating the EMS

Three levels of monitoring are required to implement the obligations under this EMS. The objectives of these levels of environmental monitoring are to assess whether operations are:

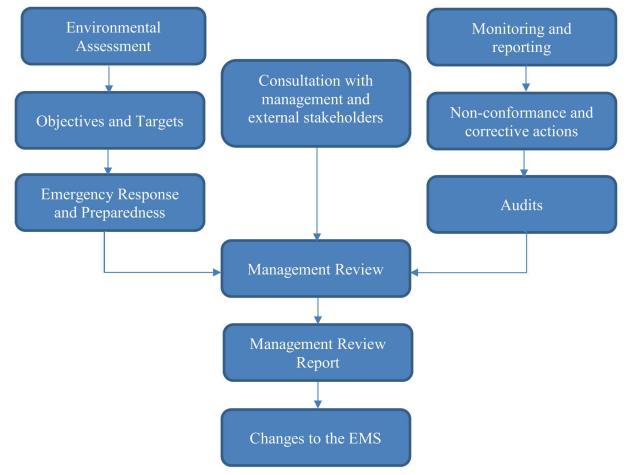
- Meeting environmental regulatory and other obligations;
- Managing significant environmental risks; and
- Meeting Corporate Objectives and Targets.

Monitoring is undertaken via:

- Monitoring required by licences and other statutory instruments;
- Internal and external compliance and system audits; and
- Senior management review.

Management Review process is established to facilitate improvement of the EMS through periodic formal review and discussion of EMS performance to determine whether the EMS is suitable, adequate and effective for the Facility. The Management Review is facilitated by the General Manager, ensuring the recommendations of the Management Review are implemented. This EMS is to be reviewed annually as a minimum.

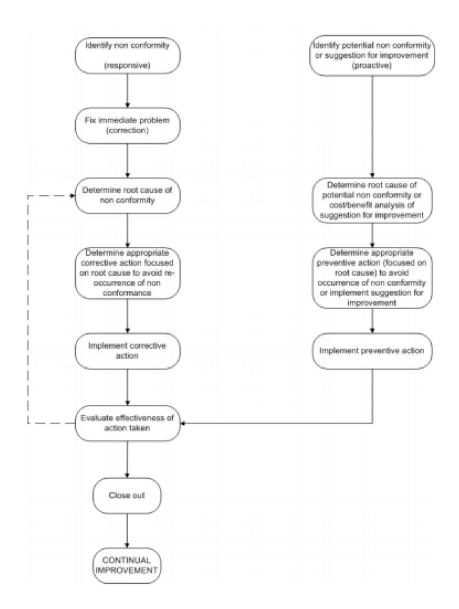




#### 6 Continual Improvement

The system audits will be conducted in accordance with a schedule nominated in this EMS. This will include a schedule of independent audits by accredited external auditors. Environmental audits will also assess the Facility against any Conditions of Approval imposed by statutory authorities. The register that is completed during compliance audits become a record of the evaluation of compliance. All detected non-compliances will be followed up with corrective actions as per the flow chart below.

Figure 6.1. Continual Improvement Process.



# 7 EMS Attachment 1: Procedure for Non-Conforming Waste

EMS Attachment 1: Procedure for non-conforming waste



# Managing Future Resources NON-CONFORMING WASTE PROCEDURE

5R Solutions Plate and Laminated Glass Recycling Facility 2115-2131 Castlereagh Road, Penrith

# 1. Purpose of This Procedure

To ensure that non-conforming waste (waste that does not meet the NSW EPA classification of *General waste – non putrescible*) is not received at the site

If non-conforming waste is found on the site, to ensure it is managed in a way that minimises harm to human health and the environment.

### 2. Responsible Person

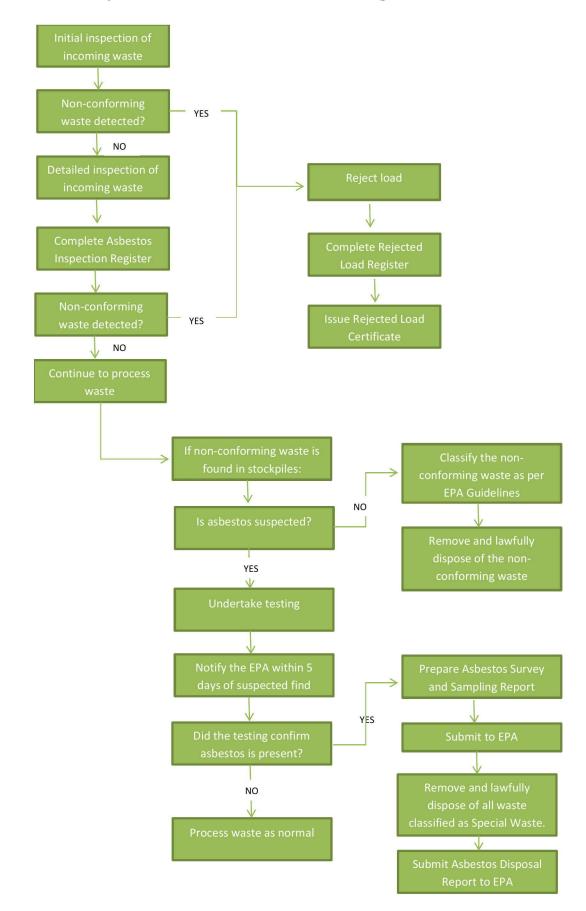
Operations Manager: 5R Solutions Australia

# 3. Associated 5R Internal Environmental Documents



# 4. External Reference Documents





### 5. Steps to be undertaken for all incoming waste loads

## 6. Detail of Each Step in the Procedure

#### 6.1 Initial inspection of incoming waste

When a load arrives at the gate, check the top of the load to see if non-conforming waste is visible. Also check for the smell of putrescible waste.

If non-conforming waste is visible or you can smell putrescible waste, reject the load (see *Rejection of non-conforming loads*)

If non-conforming waste is not suspected, allow provisional acceptance of the waste

#### 6.2 Detailed inspection of incoming waste, and Asbestos Inspection Register

Once the waste is tipped, spread and visually inspect the waste again for non-conforming materials.

If non-conforming waste is visible, reject the load load (see *Rejection of non-conforming loads* below)

If asbestos is suspected, wet down the load immediately.

For each load that underwent a detailed inspection, fill out the Asbestos Inspection Register.

If non-conforming waste is not suspected, process the waste as normal.

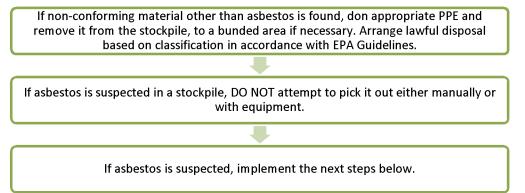
#### 6.3 Rejection of non-conforming loads

Inform driver that load is being rejected due to presence of non-conforming waste.

Record details of the rejected load in the Rejected Load Register.

Issue the driver with a Rejected Load Certificate and keep a copy on file.





#### 6.5 Asbestos testing and notification

NOTE: all blue steps must be undertaken by a suitably qualified expert who has previous experience in classifying waste in accordance with the NSW Guidelines.



Do not add or remove any waste to or from the stockpile.

Immediately restrict access to the pile by erecting barriers and signage.

Wet down the pile if dust generation is possible.

Notify the EPA on 131 555 that asbestos is suspected in the pile.

If approved by EPA, don PPE (P2 or P3 respirator, gloves, disposable overalls and boot covers) and remove each piece of asbestos contaminated material and one cubic metre of the stockpile surrounding it.

Segregate from the stockpile the 20 cubic metres immediately adjacent to and surrounding each cubic metre removed in the above step.

Move this 20 cubic metres to an area that is not contaminated with asbestos. Divide it into four x 5 cubic metre piles and spread them to a height of no more than 10cm.

Inspect for visible asbestos.

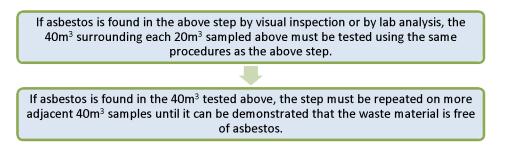
If you can see asbestos, move straight to the next step (further asbestos testing).

If you cannot see any asbestos, regroup into a 20m<sup>3</sup> pile and collect one 10 litre sample. Send it to a NATA accredited laboratory for analysis.

If the lab tests do not detect asbestos, process the stockpile as normal. If the tests detect asbestos, move to the next step (Further asbestos testing).

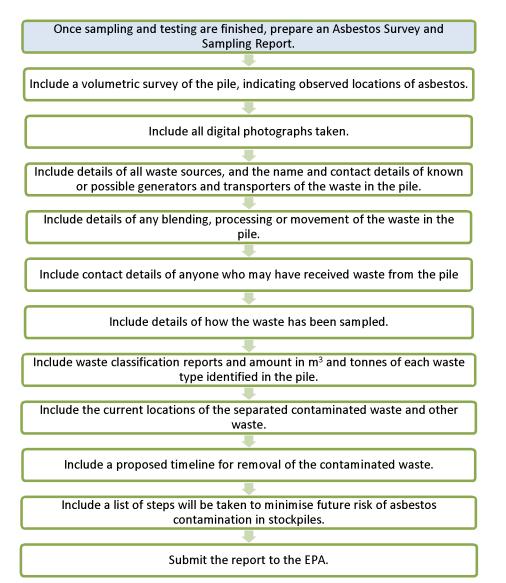
#### 6.6 Further asbestos testing

NOTE: all blue steps must be undertaken by a suitably qualified expert who has previous experience in classifying waste in accordance with the NSW Guidelines.



#### 6.7 Asbestos survey and sampling report

NOTE: all blue steps must be undertaken by a suitably qualified expert who has previous experience in classifying waste in accordance with the NSW Guidelines.



#### 6.8 Removal of asbestos-contaminated waste

Once permission is granted by the EPA, arrange for lawful transport and dipsosal of all waste now classified as Special Waste (and any other waste identified to be removed) by trained personnel in accordance with the timelines in the Asbestos survey and sampling report.

#### 6.9 Asbestos Disposal Report

Prepare an Asbestos Disposal Report
Include a a signed, dated statement from 5R Solutions saying that you complied with
the requirements of the NSW EPAs *Draft Protocol for Managing Asbestos During Resource Recovery of Construction and Demolition Waste.*Include all the weighbridge dockets showing that the Special Waste (and any other
waste required to be removed) was disposed to a facility that can lawfully receive it.
Include a signed and dated statement from the landfill that received the waste,
confirming dates of receipt of waste, amounts received each day, and total amount
received.
Provide the report to the EPA within 7 days of final disposal of Special Waste, or if
removal takes more than a month, within 7 days after every month that waste is being
disposed.

### 8 EMS Attachment 2: Procedure for Stormwater Pollution Prevention

**EMS Attachment 2: Procedure for Stormwater Pollution Prevention** 



# Managing Future Resources STORMWATER POLLUTION PREVENTION PROCEDURE

5R Solutions Plate and Laminated Glass Recycling Facility 2115-2131 Castlereagh Road, Penrith

### 1. Purpose of This Procedure

To ensure that the stormwater system functions effectively
To ensure that the quality of receiving watercourses and rivers is not impacted by stormwater from the site.

## 2. What Is Stormwater?

Stormwater is rainwater that flows across surfaces into stormwater drains and then directly into waterways.

#### 3. Responsible Person

**Operations Manager: 5R Solutions** 

# 4. Associated 5R Solutions Internal Environmental Documents

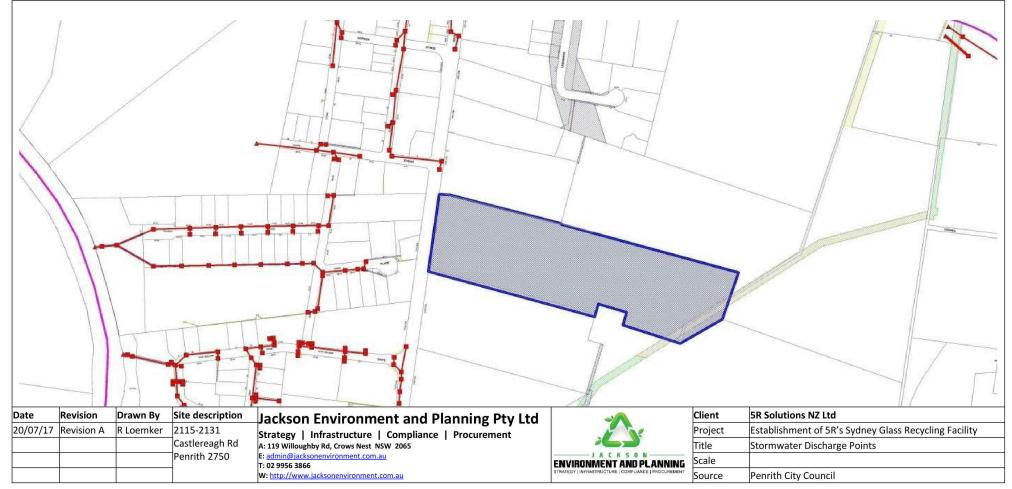
Pollution Incident Response Management Plan Dust and litter minimisation procedure

# 5. External Reference Documents

NSW Protection of the Environment Operations Act 1997 NSW DECC Managing urban stormwater: soils and construction (2008)

#### 6. Site Stormwater System

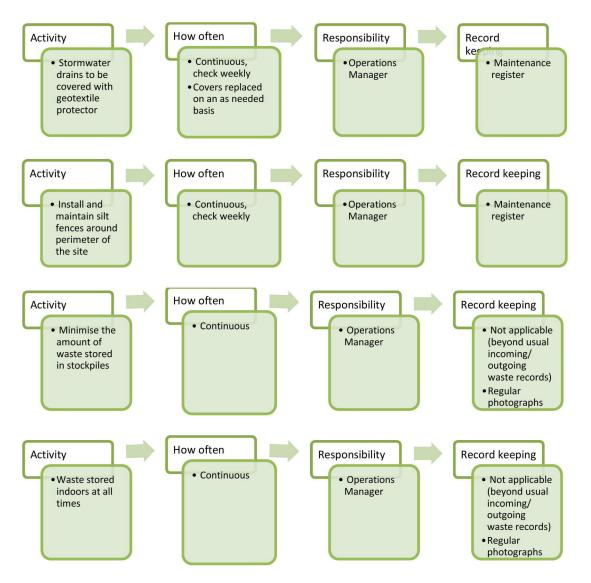
#### Figure 6-1 Stormwater Discharge Points.

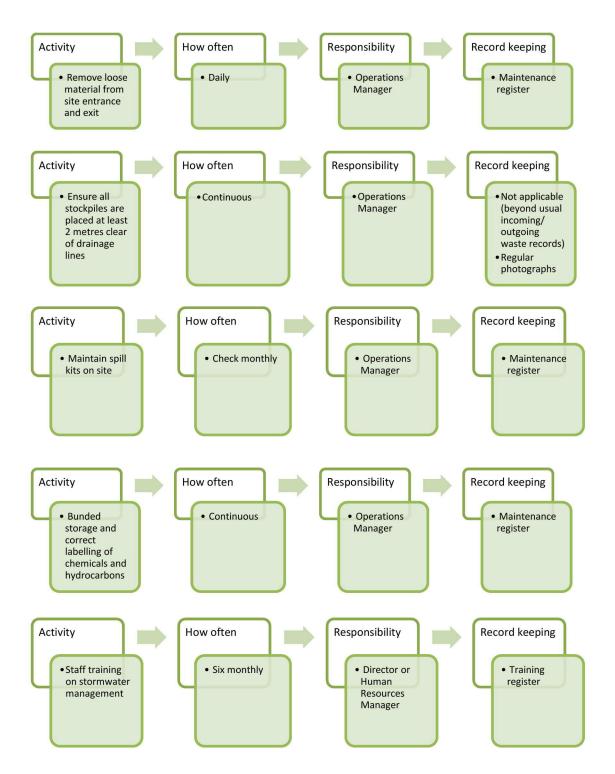


# 7. Main Risks for Stormwater Pollution



# 8. Preventative Measures to Be Undertaken





# 9. Steps To Take If Pollutants Enter the Stormwater

Activate the Pollution Incident Response Management Plan

#### 9 EMS Attachment 3: Procedure for Dust and Litter Minimisation

EMS Attachment 3: Procedure for Dust and Litter Minimisation



# Managing Future Resources DUST AND LITTER MINIMISATION PROCEDURE

5R Solutions Plate and Laminated Glass Recycling Facility 2115-2131 Castlereagh Road, Penrith

1. Purpose of This Procedure

To ensure that no dust leaves the facility To ensure that no litter escapes the facility

#### 2. Responsible Person

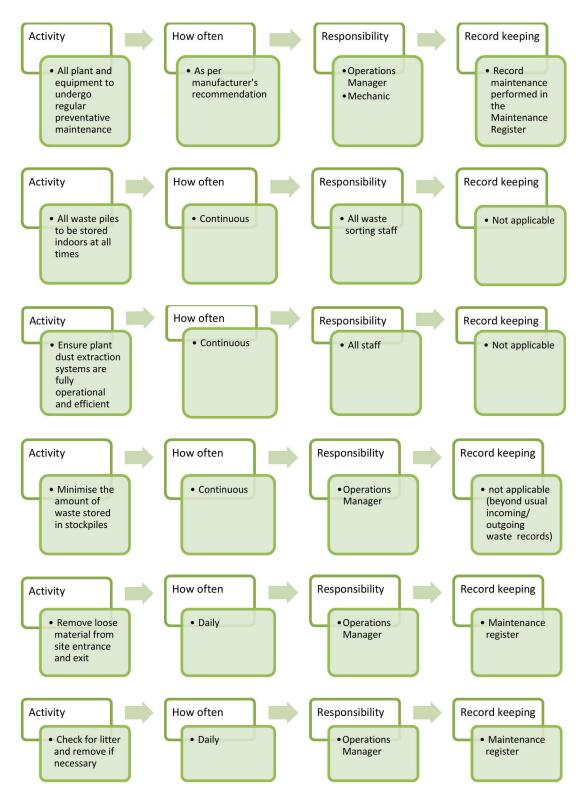
**Operations Manager: 5R Solutions** 

# 3. Associated 5R Solutions Environmental Documents

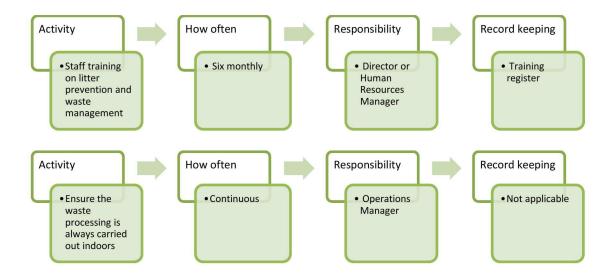
Pollution Incident Response Management Plan

#### 4. External Reference Documents

NSW Protection of the Environment Operations Act 1997



### 5. Preventative Measures to Be Undertaken



# 6. Steps to Take If Dust Is Generated



# 7. Steps To Take If Litter Is Generated



### 10 EMS Attachment 4: Procedure for Minimising Noise Pollution

EMS Attachment 4: Procedure for Minimising Noise Pollution



# Managing Future Resources NOISE POLLUTION PROCEDURE

5R Solutions Plate and Laminated Glass Recycling Facility 2115-2131 Castlereagh Road, Penrith

#### 1. Purpose of This Procedure

To ensure that noise pollution is minimised on the site and the facility fully complies with the EPA's Industrial Noise Policy

#### 2. Responsible Person

**Operations Manager: 5R Solutions** 

### 3. Associated 5R Solutions Environmental Documents

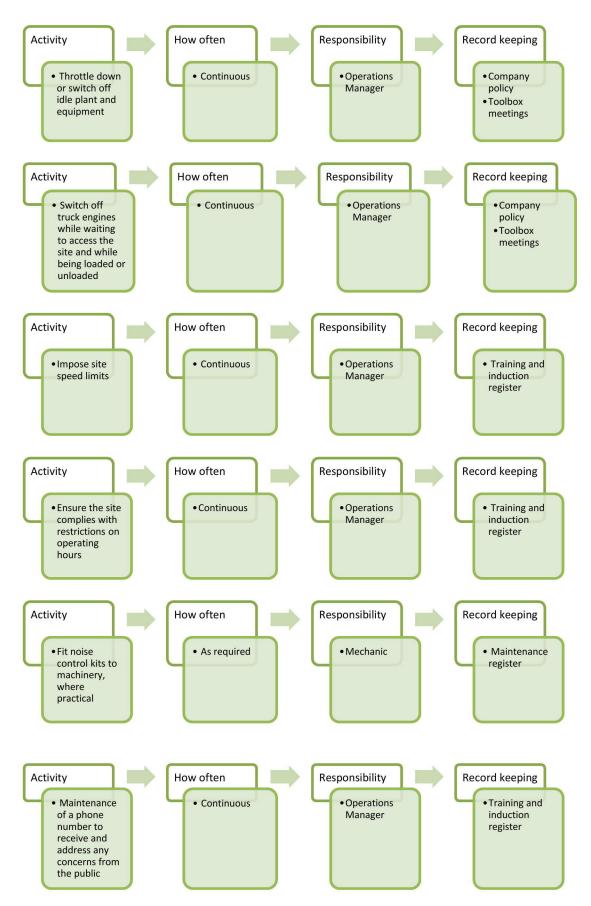
Pollution Incident Response Management Plan

#### 4. External Reference Documents

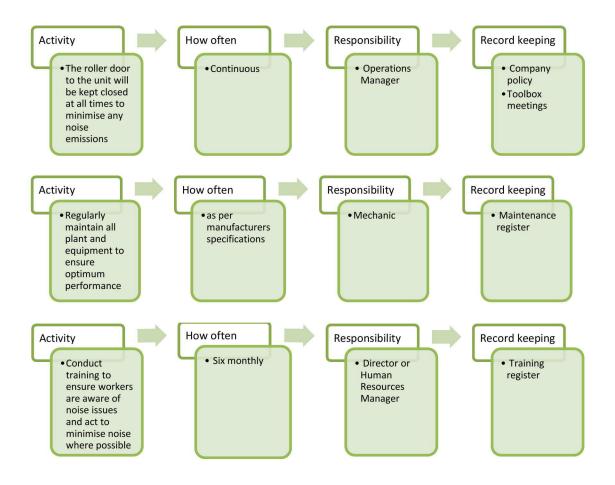
NSW Protection of the Environment Operations Act 1997 NSW Industrial Noise Policy (NSW EPA, 2000)

#### 5. Main Noise Risks at the Site

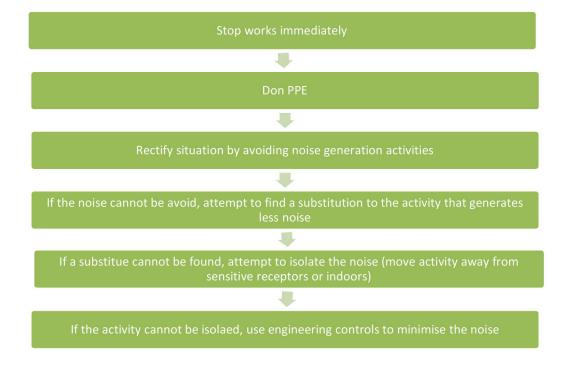




#### 6. Preventative Measures to Be Undertaken



7. Steps to take if Excessive Noise is Generated



### **11** EMS Attachment 5: Procedure for Traffic Management

EMS Attachment 5: Procedure for Traffic Management



# Managing Future Resources TRAFFIC MANAGEMENT PROCEDURE

5R Solutions Plate and Laminated Glass Recycling Facility 2115-2131 Castlereagh Road, Penrith

#### 1. Purpose of This Procedure

To ensure the safe movement of vehicular and pedestrian traffic, the protection of workers from passing traffic and to minimise conflict between vehicles accessing properties located within the limits of the Facility

#### 2. Responsible Person

**Operations Manager: 5R Solutions** 

### 3. Associated 5R Solutions Environmental Documents

Pollution Incident Response Management Plan

#### 4. External Reference Documents

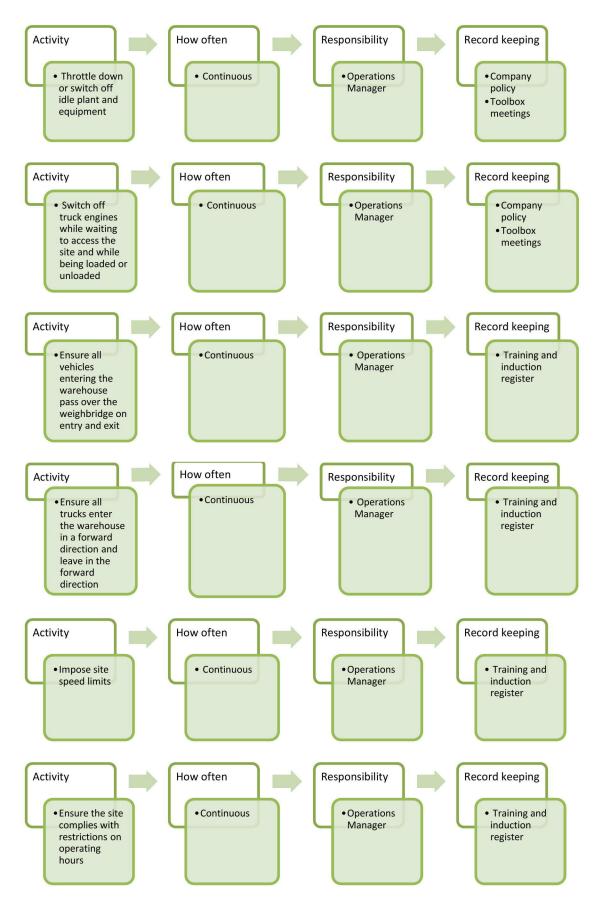
NSW Protection of the Environment Operations Act 1997 NSW Industrial Noise Policy (NSW EPA, 2000) Work Health and Safety Act 2011 Roads Regulation 2008

# 5. Main Traffic Risks at the Site

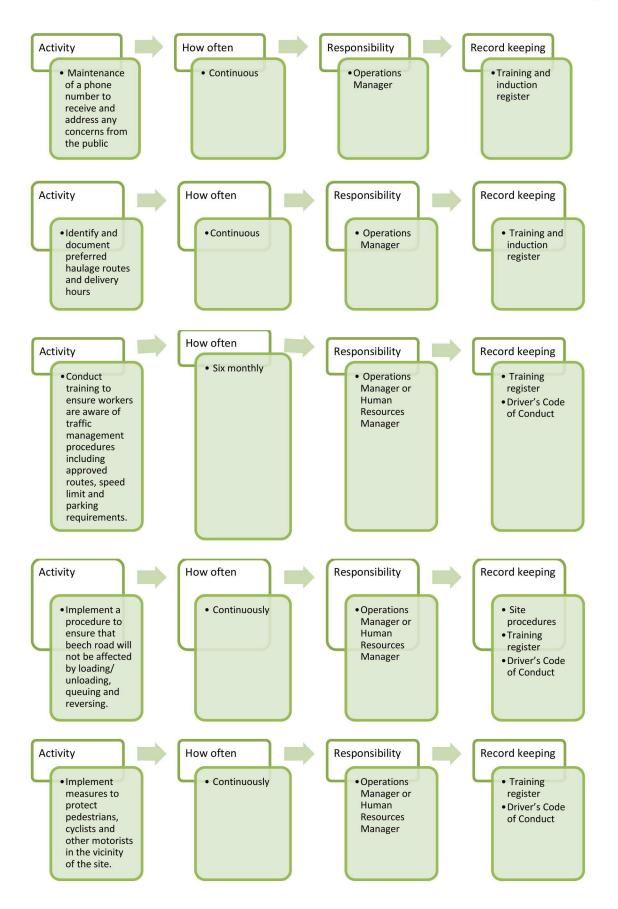
Increase in truck movements has the potential for more frequent vibrations at nearby industrial premises and residential houses along the truck haul route.

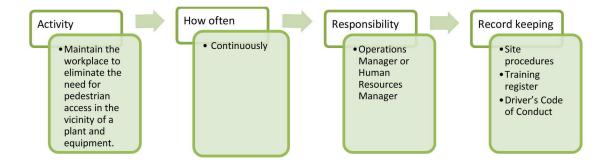
Interaction between vehicles and pedestrians/employees

Transportaton to and from site outside of approved operating hours



#### 6. Preventative Measures to Be Undertaken





# 7. Other Traffic Management Control Measures



### 12 EMS Attachment 6: Pollution Incident Response Management Plan



# **Pollution Incident Response Management Plan**

5R Solutions Plate and Laminated Glass Recycling Facility 2115-2131 Castlereagh Road Penrith

Updated 25 July 2017



Document Set ID: 7857607 Version: 1, Version Date: 28/09/2017

#### **EXECUTIVE SUMMARY**

This Pollution Incident Response Management Plan (PIRMP) has been developed for the Plate and Laminated Glass Recycling Facility located at 2115-2131 Castlereagh Road, Penrith NSW.

This document has been set out to fulfil the requirements of Part 5.7A of the *Protection of the Environment Operations Act* 1997 and contains the details required for pollution incident response management plans as set out within Part 3A of the *Protection of the Environment Operations (General) Regulation* 2009.

The content of this plan includes:

- The procedures to be followed by the licence holder in notifying a pollution incident;
- A detailed description of the action to be taken immediately after a pollution incident to reduce or control pollution; and
- The procedures to be followed for co-ordinating, with the authorities or persons that have been notified, any action taken in combating the pollution caused by the incident and the persons through whom all communications are to be made.

It is important to note that this PIRMP is a working document. If operating conditions or resource recovery practices on the site change, the PIRMP needs to be updated to reflect the changes in practices. 5R Solutions are committed to working with the NSW Environment Protection Authority (EPA), and appropriate changes to the conditions of the Environment Protection Licence will be made before any site changes are implemented.

Below is a summary of the immediate steps to be taken in the event of a pollution incident (Table 1.1).

In the event of a pollution incident		Responsibility and Action Required	Section of Report	
Step 1	Contact Director / Operations Manager		Section 7	
Step 2	Is there an immediate threat to human health and the environment?	Call Emergency Services (000) or 112 for mobile phones	Section 8.1	
Step 3	Does the site need to be evacuated?	Initiate evacuation procedure Safely follow pollution incident procedures	Section 10	
Step 4	Inform other relevant authorities of the incident	Follow the pollution incident plan contacting the relevant authorities	Section 8.1	
Additional sta	aff responsibilities	- 		
	Onsite Staff	Operations Manager	Director	
	Assist with Clean Up	Coordinate onsite plan	Call relevant regulatory authorities as specified in Section 8.1	
Step 5	Follow instructions of Operations Manager	Barricade off area and notify staff onsite	Engage appropriate consultants	
		Complete incident reporting form	Submit incident report form to EPA	
			Review this plan within 30 days of report	

Table 1.1. Summary	of Pollution	Incident Ro	esponse.
Tuble 111. Summing	or ronation	inclucine in	soponse.

It is recommended that all sections of this document are read, and the appropriate training undertaken, prior to responding to an incident.

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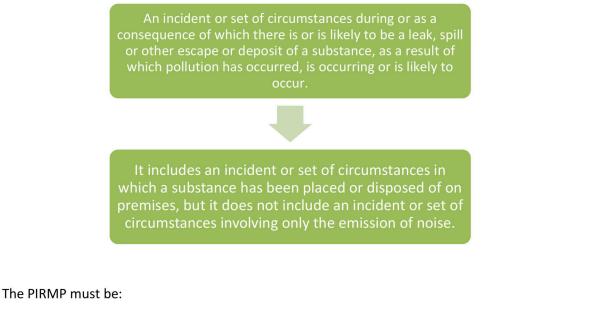
#### 1. **Purpose of This Plan**

Under the Protection of the Environment Operations Act 1997, holders of an Environment Protection Licence (EPL) must prepare and implement a PIRMP.

The objectives of the PIRMP are to:



#### A "pollution incident" is defined as:





# 2. About The Site

Address	• 2115-2131 Castlereagh Road, Penrith NSW
Lot number	• Lot 2, DP 787827
Site size	• Approximately 4,762m <sup>2</sup> in total
LGA	• Penrith City Council
Zoning	•IN1 General Industrial
Regulatory Controls	<ul> <li>Under the Penrith Local Environmental Plan 2010, 'resource recovery facilities' and 'waste or resource management facilities' are not defined as prohibited development under the IN1 General Industrial zoning. Given the <i>Penrith Local Environmental Plan</i> 2010 permits this type of development, it is considered the proposed project is compatible with the LEP.</li> <li>The proposed development meets the definition of a "Resource recovery facility" under Section 120 of the <i>State Environmental Planning Policy (Infrastructure)</i> 2007. Given the proposed development is to occur in a prescribed IN1 General Industrial zoning, the development is considered to be consistent with Section 120 of the <i>State Environmental Planning Policy (Infrastructure)</i> 2007, being development which is permissible subject to development consent from council</li> <li>An Environment Protection Licence is required for this facility under the <i>Protection of the Environment Operations Act</i> 1997</li> </ul>
Waste types accepted	<ul> <li>A mix of laminated, plate, double glazed and bottle glass packaging will be sourced and processed at the facility.</li> <li>The facility will process up to 30,000 tonnes of laminated, plate, double glazed and bottle glass packaging per annum</li> <li>Overall resource recovery rate for facility is expected to be close to 95%.</li> </ul>

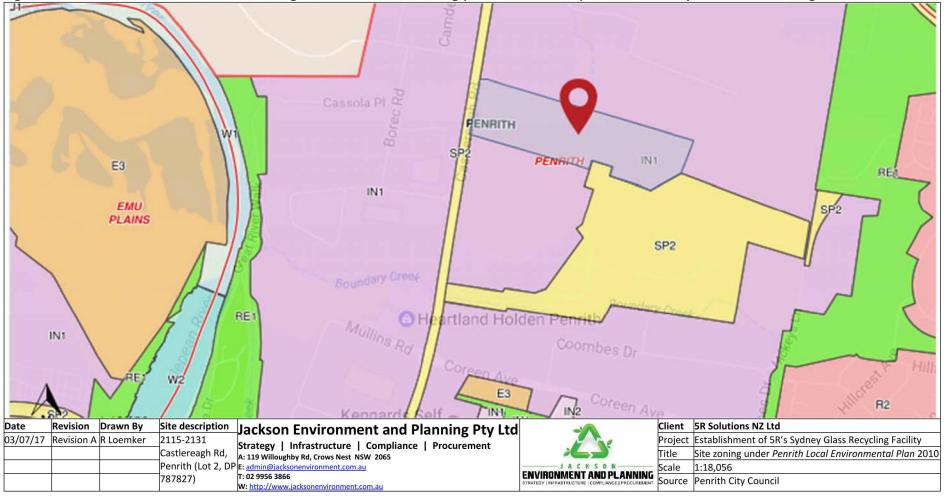
#### 2.1 Location and Site Description

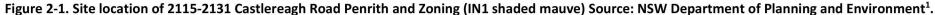
The site is located at 2115-2131 Castlereagh Road Penrith, NSW (Lot 2/DP 787827). The location of the site on Castlereagh Road is 8.9km from the M4 Motorway.

The site is zoned IN1 General Industrial (shaded mauve) as shown in Figure 2.1. The warehouse comprises an area of 4,762m2. The site has sufficient turning area for all rigid and articulated heavy vehicles to enter and leave in the forward direction. Ample parking (190+) is available at the Site, with sufficient spaces to accommodate passenger, rigid and articulated vehicles in proximity to the warehouse.

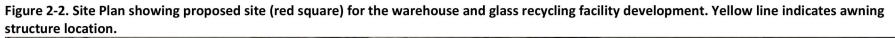
A plan of the precinct is shown in Figure 2.2. Note that the warehouse is located on the eastern part of the lot. The site is adjacent to vacant land on northern and southern boundaries, a sewage treatment works to the east and is opposite a large commercial/industrial site.

Figure 2.3 provides an overview of the waste receival and processing.

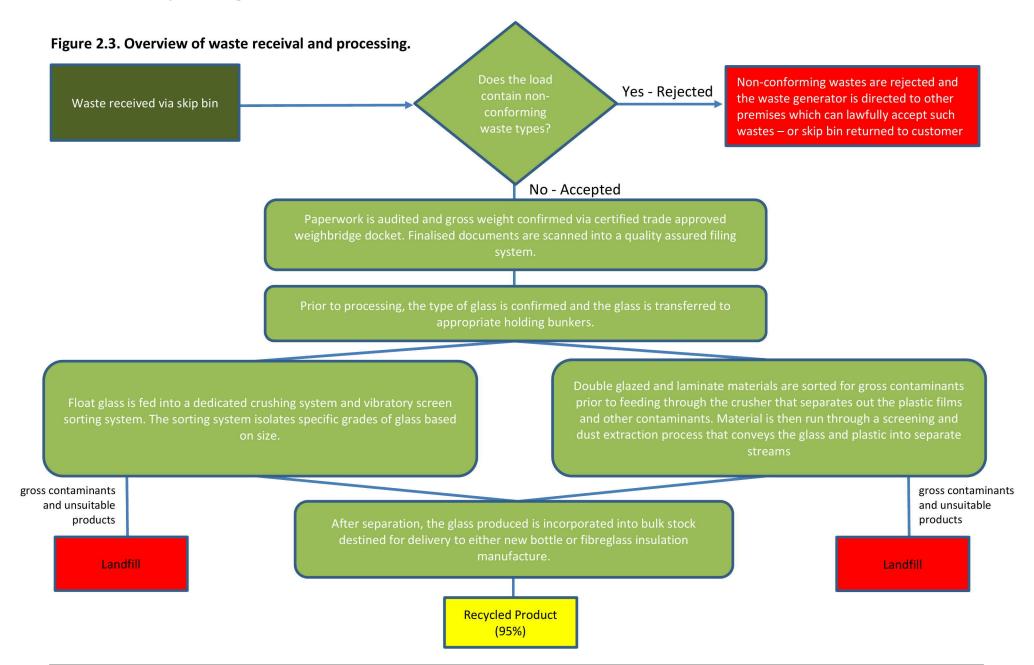




<sup>&</sup>lt;sup>1</sup> NSW Government Planning & Environment Planning Portal.







#### 2.2 Nearest Sensitive Receptors

#### 2.2.1 Residential

The south west corner of the site is located ~700m to from the Nepean River to the west and Boundary Creek to the south. The site is also located 271m south west of the Andrews Road Baseball Complex, the nearest school is Kingswood Park Public School located 1.2km to the south east (Figure 2.4).

The nearest residential dwelling and residential zoning is located 890m away in a straight-line direction to the south east of the site. This is an R2 Low Density residential area, part of the city of Penrith.

The site is surrounded by vacant land, industrial/commercial warehousing and manufacturing, which are not considered to be sensitive receptors. The site design, infrastructure location and management practices will minimise any impact on nearby receptors.

#### 2.2.1 Waterway

Stormwater from the site and surrounding industrial areas drains towards Boundary Creek and flows south west for approximately ~1 kilometre to enter the Nepean River at Emu Plains (Figure 2.4).

The Boundary Creek Catchment is a sub-catchment of the Nepean River catchment. All activities associated with the development will comply with Penrith City Council Water Sensitive Urban Design Technical Guidelines and Part 3 of the PDCP 2010.

#### 2.2.1 Habitat

The riparian watercourse associated with Boundary Creek is located 435m to the south of the site (Figure 2.5).

Lands surrounding with the development in Penrith are designated 'Scenic Protection Lands' (Figure 2.6).



Figure 2.4. Location of sensitive receptors near the proposed development. Source: Google Earth. Site is shown as a red circle.

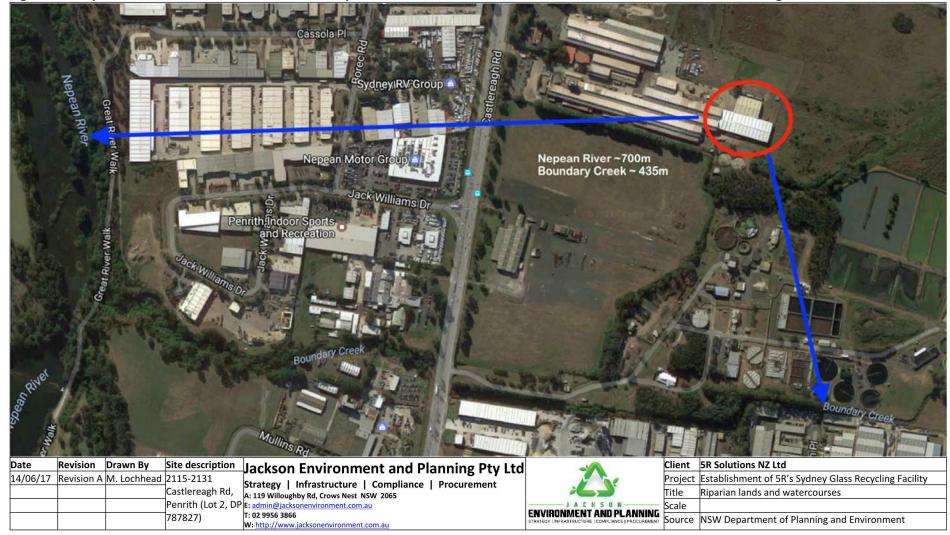


Figure 2.5. Riparian lands associated with the Boundary Creek watercourse. Site location is shown as a red circle. Source: Google Earth

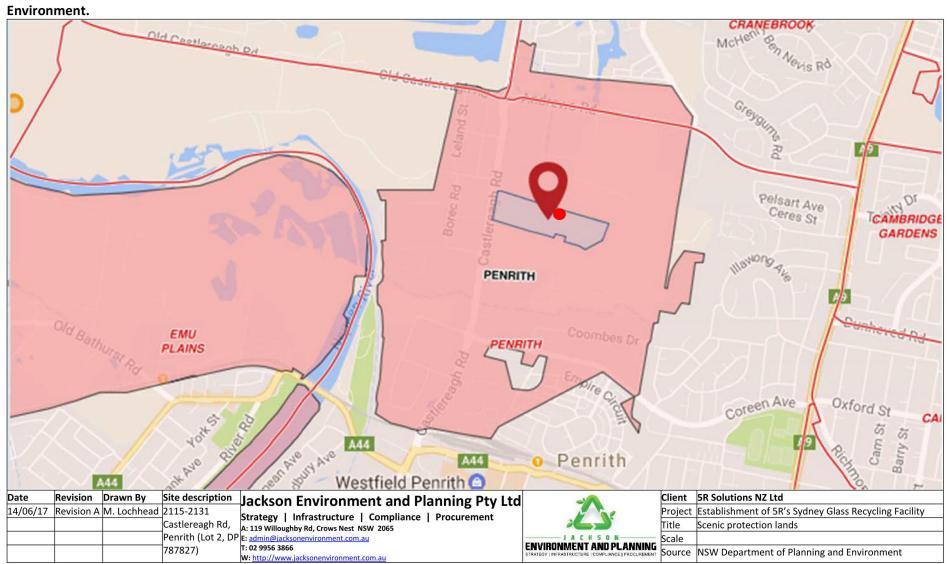


Figure 2.6. Scenic Protection Lands associated with the site (red shading). Site location is shown as a red circle. Source: NSW Department of Planning and Environment.

#### **Adjoining Premises**

The site is located in an IN1 general industrial area and is adjacent to commercial/industrial warehouse developments to the west, and a sewage treatment works to the south east. The closest business to the north of the Site is the Nepean Aquatic Centre which is separated by vacant land.

The Plate and Laminated Glass Recycling Facility is fully contained within the factory warehouse with no impacts on neighbouring properties and land uses. The Facility is therefore considered compatible with the surrounding premises and land uses.

Figure 2.6 shows the Facility's immediate neighbours.

Figure 2.6. Adjoining Businesses. Site is shown as a red circle.

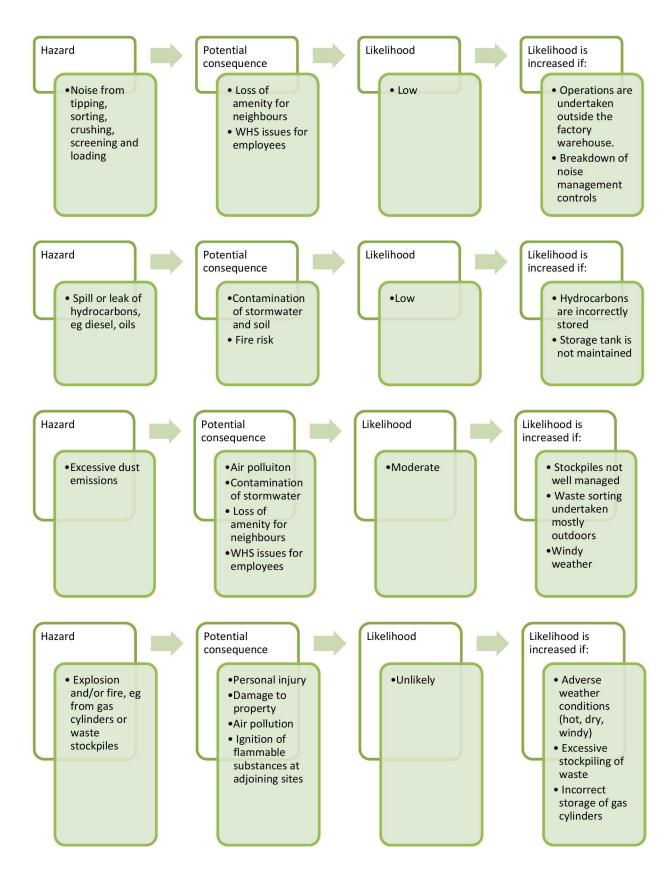


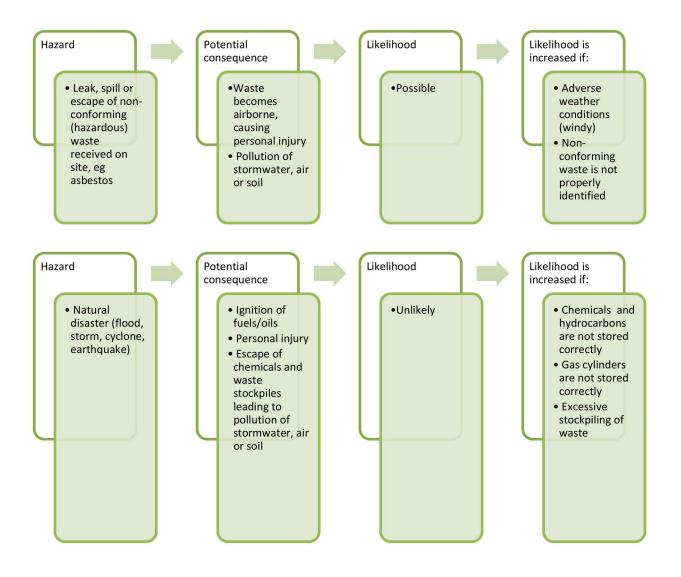
The activities of the adjoining businesses are summarised in Table 2.1:

Business	Address	Contact	Main Activity
Nepean Aquatic Centre	16-19 Lambridge Pl, Penrith NSW 2750	(02) 4730 8900	Sport and recreation
Kennards Hire Penrith	Castlereagh Rd & Lugard Street, Penrith NSW 2750	(02) 4731 5500	Equipment hire
The Climbing Centre	Unit 3, 16 Borec Rd, Penrith NSW 2750	(02) 4731 1130	Sport and recreation
Sydney RV Group	9/20 Lemko Pl, Penrith NSW 2750	(02) 4722 3444	Car sales
Nepean Motor Group	2128-2140 Castlereagh Rd, Penrith NSW 2750	(02) 4724 5555	Car sales
Penrith Indoor Sports and Recreation	1/16-26 Jack Williams Dr, Sydney NSW 2750	(02) 4732 3777	Sport and recreation
Subaru Penrith	14 Jack Williams Dr, Penrith NSW 2750	(02) 4704 9971	Car sales
Heartland Holden Penrith	2166 Castlereagh Rd, Penrith NSW 2750	(02) 4725 6555	Car sales
Bunnings North Penrith	2166 Castlereagh Rd, Penrith NSW 2750	(02) 4720 2000	Home and garden supplies

Table 2.1 Adjoining Business Details.

# 3. Description and Likelihood of the Main Hazards





## 4. Pre-Emptive Actions to be taken

The main hazards, and the mitigation measures in place for each one, are shown below.



## 5. Inventory of Pollutants

#### Table 5.1. Inventory of Pollutants.

Potential pollutant	Storage location	Maximum quantity on site
Diesel	Bunded pallets in storage area	2 x 200L drums
LPG (gas)	Storage area	4 x 15kg tanks

The storage and handling of the above pollutants are in accordance with:

- AS 1596:2014 The storage and handling of LP Gas
- AS 1940:2004 The storage and handling of flammable and combustible liquid
- AS 2030.1:2009 Gas cylinders General requirements
- Storage and Handling of Dangerous Goods Code of Practice 2005

# 6. Safety and Clean-Up Equipment

Equipment	Location	
Spill kits	2 x 120L in processing area	
Safety Data Sheets (SDS)	Office	
First Aid Kit	Office	
Fire extinguishers	<ul> <li>4 x CO<sub>2</sub> fire extinguishers:</li> <li>2x main office</li> <li>2 x processing area</li> </ul>	
Personal Protective Equipment	Worn by staff, spares in office	
Traffic bollards and traffic cones	Office	

## Table 6.1. Type and Location of Safety and Clean-up Equipment.

# 7. Contact Details and Responsible Persons

The person responsible for implementing this plan Mr Adam Davies, General Manager NSW at 5R Solutions.

In the case of a pollution incident, the following people should be notified immediately:



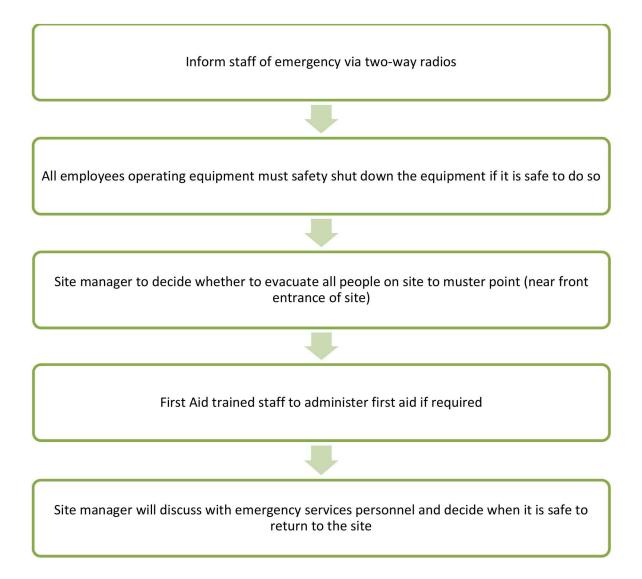
## 8. Actions to Be Taken During or Immediately After a Pollution Incident



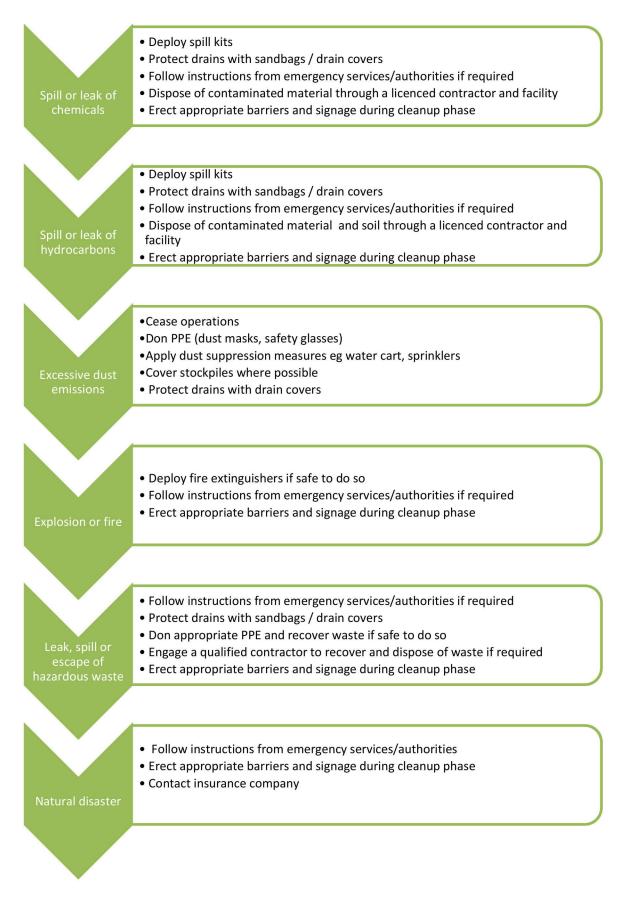
#### 8.1 Notify Agencies



#### 8.2 Minimise Harm to People on the Premises



#### 8.3 Reduce and Control Pollution



### 8.4 Communicate With Neighbours and the Community

Is there potential for off-site impacts to the community or environment? If yes, then contact the following business via telephone or where appropriate via door knocking.

Business	Address	Contact
Nepean Aquatic Centre	16-19 Lambridge Pl, Penrith NSW 2750	(02) 4730 8900
Kennards Hire Penrith	Castlereagh Rd & Lugard Street, Penrith NSW 2750	(02) 4731 5500
The Climbing Centre	Unit 3, 16 Borec Rd, Penrith NSW 2750	(02) 4731 1130
Sydney RV Group	9/20 Lemko Pl, Penrith NSW 2750	(02) 4722 3444
Nepean Motor Group	2128-2140 Castlereagh Rd, Penrith NSW 2750	(02) 4724 5555
Penrith Indoor Sports and Recreation	1/16-26 Jack Williams Dr, Sydney NSW 2750	(02) 4732 3777
Subaru Penrith	14 Jack Williams Dr, Penrith NSW 2750	(02) 4704 9971
Heartland Holden Penrith	2166 Castlereagh Rd, Penrith NSW 2750	(02) 4725 6555
Bunnings North Penrith	2166 Castlereagh Rd, Penrith NSW 2750	(02) 4720 2000

Table 8.1. Contact Details for Adjacent Businesses.	Table 8.1. Contact Det	ails for Adjacent Businesses.
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## 9. Staff Training and Testing This Plan

#### 9.1 Staff Training

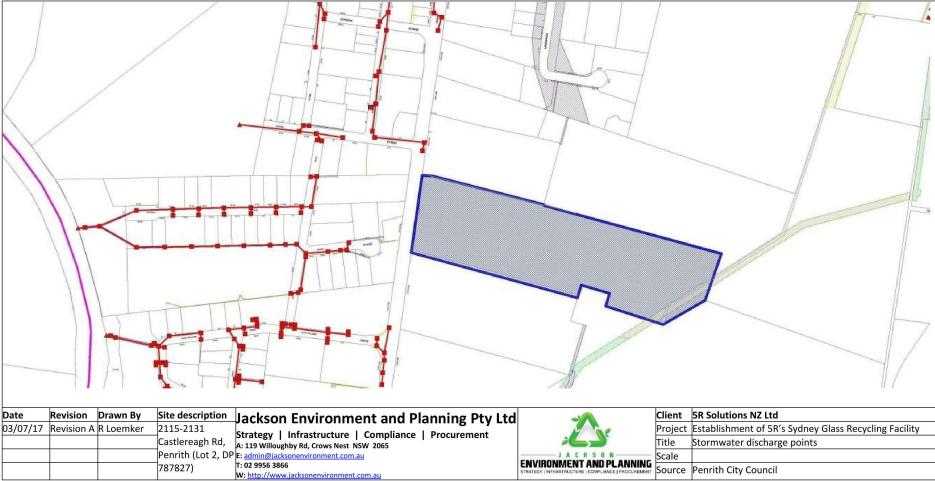


Improvements identified in the review and drills will implemented.

Records will be kept of the reviews and drills, their outcomes and any improvements identified and implemented.

### **10.** Location of Pollutant Storage, Evacuation Point and Drains

Figure 10.1. Stormwater Discharge Points.



Emergency Evacuation Muster Point Pollutant Storage Client 5R Solutions NZ Ltd Revision Drawn By Site description Date Jackson Environment and Planning Pty Ltd 03/07/17 Revision A R Loemker 2115-2131 Project Establishment of 5R's Sydney Glass Recycling Facility Strategy | Infrastructure | Compliance | Procurement Castlereagh Rd, Emergency evacuation and pollutant storage points Title A: 119 Willoughby Rd, Crows Nest NSW 2065 Penrith (Lot 2, DP E: admin@jacksonenvironment.com.au Scale ENVIRONMENT AND PLANNING T: 02 9956 3866 787827) Source Google Earth W: http://www.jacksonenvironment.com.

Figure 10.2. Pollutant Storage and Emergency Evacuation Muster Point.