Operational Environmental Management Plan

Tyrex Australia Pty Ltd

(formerly D&N Rubber Refinery Pty Ltd)

Tyre Recycling Facility

68 to 70 Victoria Street Smithfield, 2614, NSW, Lots 9/10, DP 239868

EQUILIBRIUM

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Tables and Figures

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Date	28th July 2023
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Equilibrium has limited its assessment to the scope agreed upon with its client.

Equilibrium believes that its findings are reasonably supported and that they have been developed according to the professional standard of care for the environmental and sustainability consulting profession in this area at this time.

1 Introduction

This Operational Environmental Management Plan (OEMP) identifies and assesses key hazards and risks associated with the proposed operations of Tyrex Australia Pty Ltd (Tyrex) located at 68 to 70 Victoria Street, Smithfield NSW. Importantly, this Plan sets out the proposed management strategies and risk control measures for the protection of the environment and human health.

This OEMP has been developed to support the Planning Permit and Works Approval applications for the sites at 68 to 70 Victoria Street, Smithfield NSW. This OEMP will come into effect after approval and issue of an Environment Protection Licence for the site.

Development of the OEMP is in accordance with the NSW Government Guideline for the Preparation of Environmental Management Plans.

2 Background

2.1 Description of the Operations

Tyrex is relocating its current tyre recycling operations to 68-70 Victoria St Smithfield NSW 2164. The site is located approximately 30 km's west of the Sydney CBD. The operations plan to receive and process waste tyres, involving heavy truck tyres, light truck tyres and passenger tyres. Operations recover the following products:

- rubber crumb, 0.5mm to 5.0mm in size
- tyre shred, 50mm to 150mm in size
- recovered steel, wire

Business operations at the Victoria Street facility involve tyre receivals, processing, and materials storage within the warehouse area. Head office operations and administration are housed on level 1 of the facility. A brief description of key activities at the site is as follows:

- **Weighbridge operations:** Located at the entry to 70 Victoria Street this equipment will be used for weighing vehicle loads as they enter the site.
- **Receivals:** Unloading tyres from delivery trucks inside the warehouse at 68 Victoria Street. After unloading all tyres are sorted in the production 'work in progress' area and temporarily stored prior to processing.
- **Tyre Processing:** Purpose designed industrial equipment for tyre recycling activities, involving:
    - **Tyre Shredding**: Involving passing whole tyres through industrial shredding equipment which cut tyres and reduce the size to between 50mm to 150mm.
    - **Tyre Crumbing:** where shredded tyre material is further reduced in size using mechanical processing equipment. The particle size of the rubber crumb product is 0.5mm to 5.0mm. The outputs include recovered steel and tyre crumb, both products are packaged in bulk bags prior to dispatch form site.
- **Temporary Storage:** Purpose designed racking systems within 68 Victoria Street used for storage of rubber products prior to dispatch to customers.
- **Temporary Storage:** Also stored under owning packed in bulk bags at 70 Victoria Street.

- **Office and Administration:** Tyrex head office operations, including administration, housed in 68 Victoria Street.

2.2 OEMP Context

Tyrex is the current leaseholder of the warehouse located at 68 to 70 Victoria Street, Smithfield NSW PO Box 2164.

The site is located in the Fairfield Local Government Area and located approximately 32 km to the west of the Sydney CBD (see Figure 1 below).

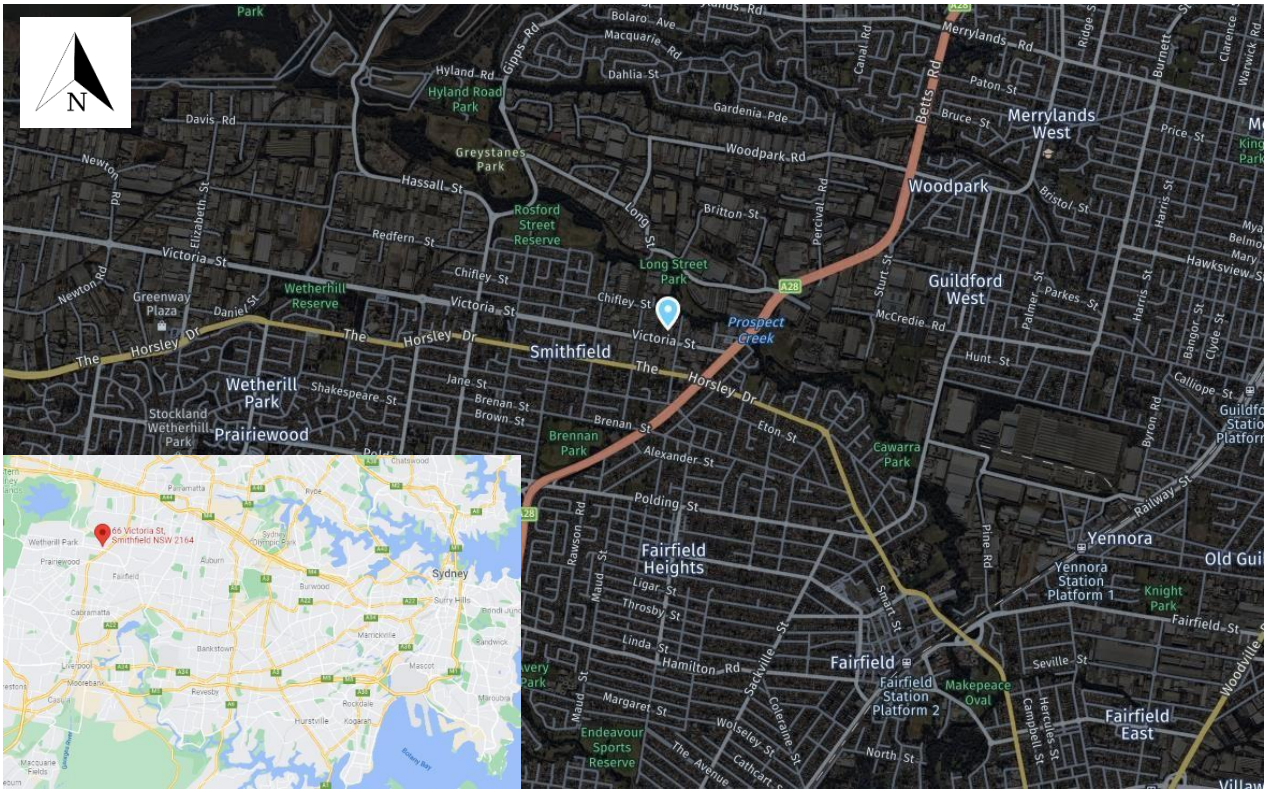

Figure 1. Site Location

Tyrex Australia Pty Ltd		
68-70 Victoria Street, Smithfield 2164	Date: September 2021 Source: Nearmap and Google Maps	EQUILIBRIUM

2.3 Sensitive Receptors and Adjacent Businesses

The nearest sensitive receptors are listed as follows:

Sensitive Receptor	Location	Distance from site
Nearest residential housing (refer Figure 2 below).	The Horsley Drive, Smithfield.	250m
Smithfield Public School	20 O'Connell St, Smithfield Phone (02) 9604 5475	400m
St Gertrude's Catholic Primary School	1/11 Justin St, Smithfield Phone (02) 9609 4144	400m

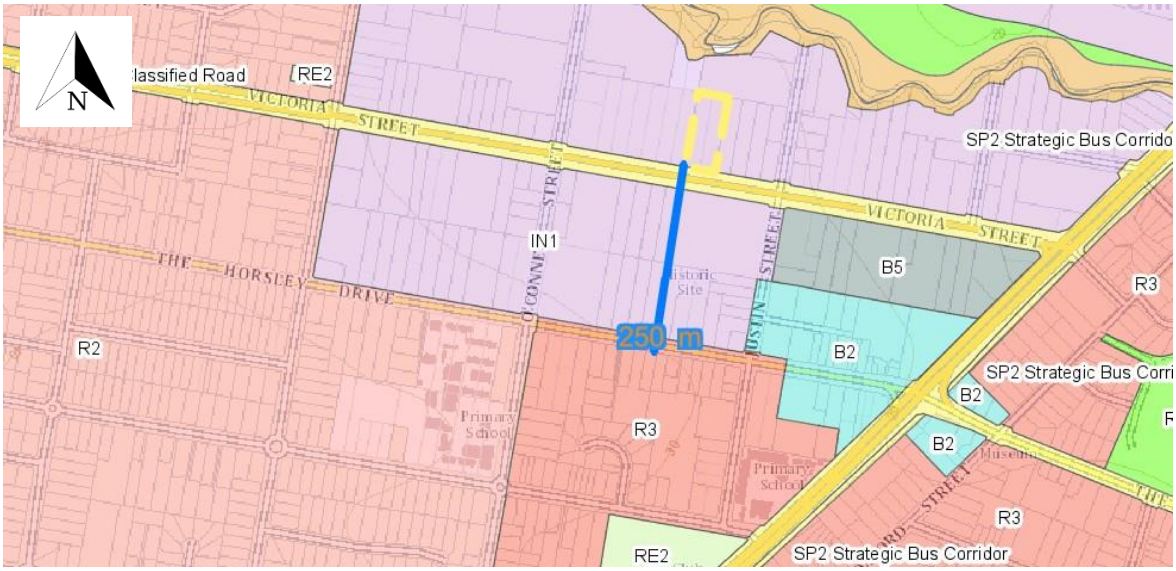

Figure 2. Site distance from nearest residence

Tyrex Australia Pty Ltd	
68-70 Victoria Street, Smithfield 2164	Date: September 2023 Source: NSW Planning Portal

The site is adjacent to a range of different commercial land uses including:

Adjacent Business	Location and Contact
Tools Warehouse	64 Victoria Street, Smithfield Phone 1300 850 801

Adjacent Business	Location and Contact
Connect Civil and Electrical Supplies and HayssPoly, Polyurethane Spraying	62 Victoria Street, Smithfield Phone 1300 476 494
Impact International, packaging company	72 to 78 Victoria Street, Smithfield Phone (02) 9604 5133
Suburban Solar Power Hub	72 Victoria Street
SAME Waterjet, water jet cutting service	48 Justin Street, Smithfield (rear property) Phone 0478 904 613

Figure 3 below provides a satellite image of the site and surrounding businesses.

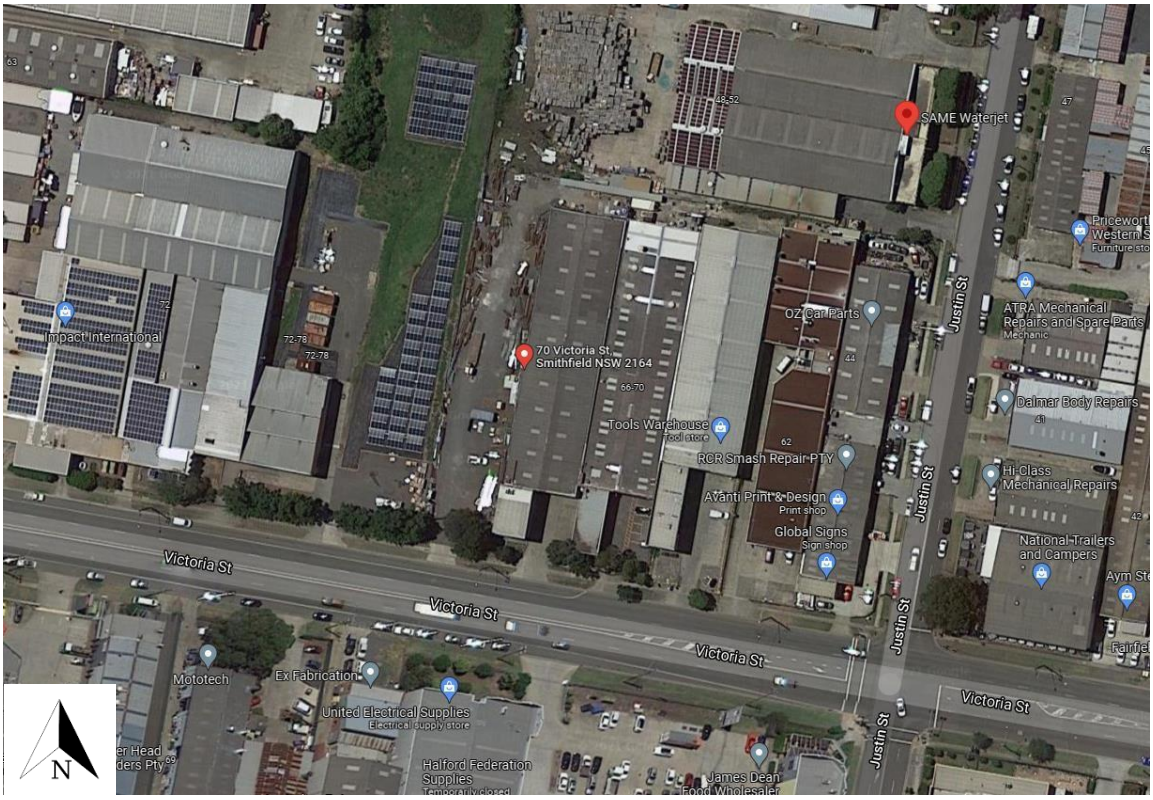

Figure 3. Adjacent Land Use

Tyrex Australia Pty Ltd	Fire Safety Study	
68-70 Victoria Street, Smithfield 2164	Date:March2023 Source: Google Maps	EQUILIBRIUM

2.4 EMP Objectives

The objectives of the OEMP are to:

- Identify and assess environmental risks associated with all activities undertaken at the site.
- Minimise the potential for adverse environmental impacts and/or harm to arise from site activities.
- Outline appropriate environmental management measures to ensure environmental risks are adequately controlled.
- Provide a process for regular inspection and monitoring to ensure environmental management and control measures remain appropriate and effective for the operation of the site.

2.5 Environmental Policy

Tyrex's environmental policy is the main guiding document setting context for how Tyrex ensures compliance with environmental law and takes action to prevent environmental harm.

The environmental policy sets out:

- The purpose of Tyrex operations and how they are related to the environment.
- Tyrex's objectives when it comes it environmental management.
- Tyrex's commitments to avoiding pollution, mitigating against environmental harm and regulatory compliance.
- General responsibilities relating to the environment.

3 Environmental Management

3.1 Environmental Management Structure and Responsibility

Environmental management for the site is the responsibility Tyrex. This involves ensuring:

- Appropriate equipment, procedures and systems of management are in place.
- Employees are suitably trained in procedures and suitably resourced to fulfill their duties.

Table 3 below provides an overview of the structure and responsibilities of environmental management at Tyrex.

Table 1. Environmental Management Structure and Responsibilities

Role	Responsibilities
Owner / Site Manager	• Design and set environmental policies • Develop and implement the Operational Environmental Management Plan (OEMP) and the Environmental Management Plan (EMP) • Establish appropriate infrastructure for waste management on site

Role	Responsibilities
	• Ensure systems and necessary resources are in place to allow Tyrex to comply with environmental laws and regulations relevant to the business • Ensure employees are appropriately trained in regard to the OEMP • Ensure routine reviews of environmental systems and plans • Maintain accountability for Tyrex environmental management • Ensure adequate resources are provided to employees to adhere to the OEMP • Ensure staff comply with environmental management procedures and practices on site • Communicate any adjustments or updates to the environmental management on site to employees • Ensure systems are in place for managing emergency situations, including environmental incidents. • Take appropriate action in response to any stakeholder complaints or expressions of concern. • Act promptly to implement and record corrective actions for non-conformances • Completing required and voluntary environmental reporting
Employees	• Undergo relevant environmental and operational training as directed by the Site Manager • Understand and adhere to the environmental management requirements of the site • Report environmental incidents, near-misses and opportunities for improvement • Participate in environmental management activities as required, including hazard identification and risk assessments • Provide feedback for improvements in the site environmental management
Contractors	• Conform to site environmental management requirements • Report environmental incidents and near misses to the site supervisor/manager • Undertake training as required by site management

3.2 Approval and Licencing Requirements

3.2.1 POEO Environment Protection License (EPL)

Under the Protection of the Environment Operations (POEO) Act 2017, Tyrex is required to have an Environmental Protection License (EPL) to receive, store and process waste tyres. The storage

and recovery of waste tyres is a scheduled activity if a facility stores more than five tonnes or 500 tyres at one time, or they process more than 5,000 tonnes of waste tyres per year.

Tyrex is in the process of seeking an EPL to relocate operations to 68-70 Victoria Street.

3.3 Reporting

The site manager will be responsible for completing all necessary reporting and ensuring they are submitted to the required entities within required time frames.

3.3.1 POEO License - Annual Return

Premises that require an EPL are required to complete and supply an Annual Return to the NSW EPA.

Tyrex will fulfill reporting requirements in accordance with the format specified by NSW EPA, including providing an Annual Return and Statement of Compliance to NSW EPA.

Tyrex's Annual Return will be supplied via eConnect EPA no later than 60 days after the end of each reporting period.

3.3.2 Waste Contribution Monthly Report

Tyrex will report to the NSW EPA a Waste Contribution Monthly Report (WCMR) via the Waste and Resource Reporting Portal (WARRP).

Included in the WCMR will be details of the inputs of waste received, and associated outputs produced on site each month, including a description of material and specified quantities.

Tyrex will also provide the required QR2id plates so that waste transporters can track waste tyres being transported, as per their requirements. This is also to ensure that the figures obtained using WasteLocate correspond with the monthly WARRP.

3.3.3 Tyre Stewardship Australia Reporting

Tyrex will also apply for scheme membership with Tyre Stewardship Australia (TSA). Scheme participants are required to provide TSA monthly reporting for: quantity of tyres received, types of tyres received, processing quantity, product sales and total materials recovery.

3.4 Environmental Training

As part of standard induction and training practices at Tyrex, all employees are trained in the site environmental management procedures and practices. Training will be conducted at the start of employment, with refresher training as required. The training that will be undertaken includes:

- **Waste Tyre receivals, processing and storage** – Operational practices concerning the core business functions of Tyrex, and how it is to be conducted to ensure proper environmental management and protection
- **Fire Safety** – Training for fire safety and prevention on site including hot works permits, emergency response and use of fire suppression equipment.

- **Waste management** (other than tyres) – Site waste management storage and disposal practices. This includes the management of regulated wastes (e.g., waste oil) and other wastes generated at site.
- **Water management** – Water use and consumption practices to reduce wastage.
- **Fuel and chemical storage** – Safe storage and use of fuel and chemicals onsite to ensure the protection of human and environmental health.
- **Electricity** – General electricity usage practices on site.
- **Environmental Hazard identification and Incident reporting** – Ensuring employees are aware of how to identify environmental hazards and how to report environmental incidents.
- **Environmental Emergency Response** – Practices around environmental emergencies that could occur on site and responses to environmental emergencies
- **OEMP familiarisation** – Familiarisation with this document and relevant site environmental controls.

3.5 Emergency Contacts and Response

Table 4 below contains the contact details of the emergency contact on site. This person is the key contact person in the event of an emergency that will be available 24/7, and who has the authority to stop or direct works.

The emergency contact will have the responsibility of managing site response activities in the event of an emergency.

In the event of an emergency, the site Emergency Response Plan is to be followed. The Emergency Response Plan describes the first response procedures and evacuation in the event of an emergency, where the Pollution Incident Response Management Plan (PIRMP) provides clear response to contain potential pollution from leaving the site.

Table 2. Emergency Contact Details

Name:	Zafar Mahmood
Email:	info@rubberrefinery.com.au
Contact:	02 9756 1827
Mobile (after hours contact):	0414 982 402

4 Site Environmental Risk Register

Table 5 provides the site risk register including an assessment of potential environmental hazards, the associated risks and necessary controls. All risks have been assessed against the risk matrices provided in Appendix A.

Table 3. Tyrex Rubber Risk Assessment

Item	Hazard	Cause	Initial Risk (IR)			Protection Measures	Residual Risk (RR)		
			(L)	(C)	(IR)		(L)	(C)	(RR)
Fire Risk									
1	Indoor fire from storage of rubber product and other solid combustible material including: • Whole tyres • Bagged rubber crumb • Tyre shred • Wooden Pallets	Potential sources of ignition identified: • Electrical/wiring faults • Electrical boards faults • Lighting faults • Unsafe storage • Hot works conducted nearby combustible materials. • Arson • Smoking • Faulty mobile equipment	C	5	Critical	• Storage compliance with NSW Tyre Storage Guideline requirements. • On-site fire suppression and warning systems in accordance with BCA requirements. • Fire Emergency Management Planning, ensuring appropriate first response measures. • Firewater containment systems and enacting the PIRMP. • Site Security Systems to prevent possible arson events • Equipment maintenance programs to ensure equipment is operating correctly and safely, including mobile equipment. • Maintenance and testing of electrical equipment to reduce the risk of electrical faults. • Hot-works permit, risk assessments and procedure to ensure safety and fire prevention measures are in place. • Stock management plan to manage stock levels. • Smoking bans enforced at all times	B	3	Medium

Item	Hazard	Cause	Initial Risk (IR)			Protection Measures	Residual Risk (RR)		
			(L)	(C)	(IR)		(L)	(C)	(RR)
2	Outdoor fire from storage of rubber products and other solid combustible material, including: • Whole tyres • Bagged rubber crumb • Tyre shred • Wooden pallets	Potential sources of ignition identified: • Hot works conducted nearby combustible materials. • Arson • Smoking • Traffic incident on-site • Faulty mobile equipment	C	5	Critical	• Storage compliance with NSW Tyre Storage Guideline requirements. • On-site fire suppression and warning systems in accordance with BCA requirements. • Fire Emergency Management Planning, ensuring appropriate first response measures. • Firewater containment systems and enacting the PIRMP. • Site Security Systems to prevent possible arson events • Equipment maintenance programs to ensure equipment is operating correctly and safely, including mobile equipment. • Maintenance and testing of electrical equipment to reduce the risk of electrical faults. • Hot-works permit, risk assessments and procedure to ensure safety and fire prevention measures are in place. • Stock management plan to manage stock levels.	B	4	Medium
3	Heat generation or spark from the processing equipment: shredding plant and de-beading machine igniting waste rubber.	Possible sources of ignition: • Equipment failure, motor overheating causing electrical fire • Failure/accidental shut off of water misting system (to prevent sparks) • Potential spark from cutting tyres with metal beading	B	4	High	• Ensuring tyre storage separation from equipment and compliance with NSW Tyre Storage Guidelines and EPA license. • Water misting sprays on tyre cutting equipment • Operation under constant supervision during tyre processing. • BCA compliant on-site fire suppression and warning systems. • Fire Emergency Management Planning.	A	3	Low

Item	Hazard	Cause	Initial Risk (IR)			Protection Measures	Residual Risk (RR)		
			(L)	(C)	(IR)		(L)	(C)	(RR)
						• Equipment maintenance programs. • Maintenance and testing of electrical equipment to reduce the risk of electrical faults. • Firewater containment systems and enacting the PIRMP. • Evacuation drills and procedures practiced			
4	Heat generated or spark from the crumbing plant causing fire in the crumbing line	Possible sources of ignition: • Failure or accidental shut off of the water-cooling system and rubber crumb igniting due to excessive heat	C	5	Critical	• Storage compliance with NSW Tyre Storage Guidelines and EPA license. • On-site fire suppression and warning systems. • Fire Emergency Management Planning. • Emergency Evacuation • Equipment maintenance programs. • Maintenance of electrical equipment. • Fire-water containment systems and activation of the PIRMP. • Hot-works permit, risk assessments and procedure • Stock management plan • Smoking bans enforced • Evacuation drills and procedures practiced	A	4	Medium
5	Maintenance hot work creating sparks and igniting combustible material	Activity involving a source of ignition (heat, sparks or flame). Works conducted in close proximity to combustible or flammable material causing ignition.	D	5	Critical	Hot-works procedure and permit, including: • Fire risk assessment of the task and appropriate controls identified • Fire equipment requirements • Permit system designating supervision and sign-off.	A	3	Medium

Item	Hazard	Cause	Initial Risk (IR)			Protection Measures	Residual Risk (RR)		
			(L)	(C)	(IR)		(L)	(C)	(RR)
						• Other key measures: • Fire Emergency Management Planning • Staff and contractor systems training • Stormwater protection systems and activation of the PIRMP. • Evacuation drills and procedures practiced			
6	Ignition of parts of tyres stored within the building (e.g., tyre beads/rims)	Possible sources of ignition: • Electrical/wiring faults • Electrical boards faults • Lighting faults • Unsafe storage • Hot works conducted nearby combustible materials. • Arson • Smoking	B	3	Medium	• On-site fire suppression and warning systems. • Fire Emergency Management Planning. • Site Security Systems. • Equipment maintenance programs. • Maintenance of electrical equipment. • Fire-water containment systems. • Hot-works permit, risk assessments and procedure • Stock management plan • Smoking bans enforced • Separation of wooden pallets from rubber storage • Minimising storage of wooden pallets • Evacuation drills and procedures practiced	A	3	Low
7	Ignition of tyre shred stored in shipping containers	Tyre shred stored in closed shipping containers are subject to fire from high external heat sources.	A	4	Medium	• Closing / locking containers once loaded. • On-site fire suppression and warning systems. • Fire Emergency Management Planning. • Site Security Systems. • Equipment maintenance programs.	A	2	Low

Item	Hazard	Cause	Initial Risk (IR)			Protection Measures	Residual Risk (RR)		
			(L)	(C)	(IR)		(L)	(C)	(RR)
		External heat sources may occur from nearby fire in the event there is a tyre fire at the facility.				• Maintenance of electrical equipment. • Fire-water containment systems. • Hot-works procedure • Stock management plan • Smoking bans enforced			
8	Grass fire or bush fire threatening facilities	• Lightning • Arson • Fire spreading from another site or business	B	2	Low	Property is approx. 3.2 km away from the nearest bushfire hazard area (to the NW of the facility). Site will also reduce risk through: • Property & boundary maintenance minimising vegetation. • Clearance zone along the boundary • Early bushfire warning system • NSWRFS fire ready App • Extreme weather alerts are included in toolbox talks • Education of workforce • Text alerts • Evacuation drills and procedures practiced	A	2	Low
9	Ignition of flammable goods	Potential sources of ignition identified: • Incompatible materials • Electrical/wiring faults • Electrical boards faults • Lighting faults	D	5	Critical	• Personnel trained in the handling and use of chemicals. • Flammable liquid cabinet • Storage away from tyre piles • Chemical bunding • Clear and correct chemical labelling, handling & PPE	A	3	Medium

Item	Hazard	Cause	Initial Risk (IR)			Protection Measures	Residual Risk (RR)		
			(L)	(C)	(IR)		(L)	(C)	(RR)
		• Unsafe storage • Hot works conducted nearby flammable materials. • Arson • Smoking				• Current Safety Data Sheets & chemical register • Hazardous substance & dangerous goods risk assessments • Chemical spill kits are in place • Security systems to prevent unauthorized entry and vandalism.			
10	Fire starting in office and administration including potential fire associated with office equipment	Possible sources of ignition: • Faulty/overheating of computers and other electronic office equipment. • Lighting faults • Faulty personal electronic devices. • Arson • Smoking	B	4	High	• Routine testing & tagging of electrical equipment in line with Australian Standards. • Qualified electrical contractors • Routine office inspections & audits • Dedicated office cooling system and temperature control (Check) • Fire systems installed in accordance with BCA requirements • Security to prevent unauthorized entry. • Fire Emergency Planning • Stormwater management plan and activation of the PIRMP. • Evacuation drills and procedures practiced, including all operational and office staff.	B	2	Low
11	Ignition of gas cylinders	Gas leak combined with an ignition source creating a fire. Gas leaks may occur from circumstances that involve:	B	4	High	• Operators trained in the handling and storage management of gas cylinders. • Gas cylinders are constrained at all times • Minimise volume of bottles kept on site & order as needed	A	3	Low

Item	Hazard	Cause	Initial Risk (IR)			Protection Measures	Residual Risk (RR)		
			(L)	(C)	(IR)		(L)	(C)	(RR)
		• Uunconstrained and uncontrolled use of gas cylinders. • Inappropriate use and storage of cylinders. • Faulty cylinder heads or leaky fittings. • Gas cylinder usage with faulty equipment (e.g., Forklift) • Sources of ignition may involve: • Electrical equipment • Static charges • Equipment sparking (e.g., faulty equipment) • Mobile equipment • Smoking				• Smoking bans enforced. • Hot-works permit, risk assessments and procedure			
12	Vehicle movement (trucks and forklifts) incident or equipment fault causing a fire spreading to rubber storage areas	• Vehicle incident or fault leading to fire.	C	4	High	• Equipment maintenance schedules. • Trucks and site vehicles installed with fire extinguishers. • Traffic management plan to manage traffic speeds, flow and reduce risk of incidents. • Stock management plan / Storage compliance with NSW Tyre Storage Guidelines and EPA license. • Smoking bans enforced • Separation of wooden pallets from rubber storage • Minimising storage of wooden pallets	A	4	Medium

Item	Hazard	Cause	Initial Risk (IR)			Protection Measures	Residual Risk (RR)		
			(L)	(C)	(IR)		(L)	(C)	(RR)
13	Environmental impact from run-off of firefighting water released to the surrounding environment.	• Sloping site • Inadequate bunding • Lack of stormwater protection	D	5	Critical	• Sealed surface indoors • General site bunding sufficient to retain 162,000 litres of water on site, compliant with the NSW Guide for storage or rubber tyres. • Stormwater management plan • Installation of a stormwater isolation valve	B	2	Low
14	Smoke build up in warehouse impeding firefighting. Heat build-up providing radiative feedback to fire	Inadequate smoke/heat venting	D	5		• Fire engineering assessment to verify building meets BCA Clause E1.10	B	3	Medium
15	Limited access for emergency vehicles	Site energy inadequate for emergency vehicles	D	4	Critical	Site entry >4m wide	B	2	Low
16	Dust subsequent to processing	Outcome of the process, depending on particle size if <500um	D	5	Critical	Enclosed system for crumbing, including purpose designed baghouse for collection of all dust. Regular maintenance of equipment. Air quality assessment of site operations.	B	1	Low

Item	Hazard	Cause	Initial Risk (IR)			Protection Measures	Residual Risk (RR)		
			(L)	(C)	(IR)		(L)	(C)	(RR)
17	Settled dust throughout facility due to poor housekeeping	By product of process. Dust settles and if disturbed may cause an explosion hazard. Dust that has settled and persists for more than one shift.	D	5	Critical	• Baghouse on crumbing operations • Trucks carrying loads of potentially dust generating material to be covered • All equipment and vehicles maintained in an efficient operating condition. • Regular clean-up/sweeps to remove dust	A	4	Medium
18	Safety risk of tyres being stored higher than 3.7m	Stockpiles unstable in fire due to storage height Tyres being stored at greater heights due to increased supply, machine maintenance leading to stockpiling, poor tyre storage	B	3	Medium	• Storage management plan • Daily monitoring of storage • Weekly stock assessments • Environmental hazard identification, including near miss / incident reporting processes.	A	2	Low
19	Chemical Spill	Incorrect storage or use of chemicals	B	2	Low	• Minimise volume on-site (<20L) • Chemical cupboard, drip trays • Regular inspection and observation • Indoor storage • Correct disposal of waste as required • Spill kits stocked and located nearby in the event of a spill or leak • Routine inspections and observations	A	2	Low
20	Oil Spill	Incorrect storage or use of oil	B	2	Low	• Indoor storage, maximum 3 drums on-site • Pallet bunding	A	2	Low

Item	Hazard	Cause	Initial Risk (IR)			Protection Measures	Residual Risk (RR)		
			(L)	(C)	(IR)		(L)	(C)	(RR)
						• Regular inspection and observation • Correct disposal of waste as required • Spill kits stocked and located nearby in the event of a spill or leak • Routine inspections and observations			
21	Tyre crumb entering stormwater system	Allowing tyre crumb to sit after processing with inadequate management	B	3	Medium	• Activities conducted inside the warehouse • Product is bagged after processing • Storage of crumb is within the warehouse, or within shipping container prior to dispatch. • Maintaining factory housekeeping, regular sweeping of the factory floor	A	3	Low
22	Dust polluting local environment	Dust from the operation of crumbing machine	D	3	High	• Baghouse operations for crumbing process • Regular inspection and observations	B	2	Low
23	Noise pollution	• Tyre shredding and crumbing process • Mobile equipment operation and vehicle movement	B	2	Low	• Noise impact assessment • PPE for operations staff and contractors • Risk assessment and safe work procedure • Considerations for outdoor plant and equipment • Complaint handling	B	2	Low
24	Air Pollution	• Air emissions operations • GHG emissions and local pollution from exhaust of forklifts and trucks on site	B	2	Low	• Air quality assessment • Shredding equipment to be used inside and appropriate ventilation provided for employees • All trucks to be turned off when unloading or loading • Forklifts to only be turned on when being used	B	2	Low

Item	Hazard	Cause	Initial Risk (IR)			Protection Measures	Residual Risk (RR)		
			(L)	(C)	(IR)		(L)	(C)	(RR)
						• Adopting a purchasing policy for evaluating more fuel-efficient vehicles			
25	Stormwater Pollution	• Chemical spills • Oil spills • Firefighting water spills • Rain causing leakage from tyres and tyre products due to poor storage	D	3	High	• Spill kits • Fire suppression equipment • Pollution and Incident Response Management Plan (PRIMP) • Stormwater management plan, including activating the stormwater isolation value • Bunding to ensure containing water pollution on the site • Removal of firefighting water using a licensed provider	A	3	Low

5 Environmental Management Activities and Controls

This section details responsibilities for ensuring key risk management strategies are in place and effective. The site is to use the Schedules set out in Section 5.6 for monitoring and tracking the overall implementation and performance of environmental controls.

5.1 Tyre Waste Acceptance and Handling

The objectives of the waste acceptance and handling controls are to:

- Ensure tyres are stored in accordance with the Fire and Rescue NSW Fire Safety Guideline "Guideline for bulk storage of rubber tyres".
- Carry out the management of disposal of waste in accordance with regulatory requirements
- Prevent the acceptance of non-conforming wastes
- Promote sustainable management of resources and reduce waste disposed to landfill

Table 4. Risk Mitigation Controls and Responsibilities – Waste Acceptance and Handling

Risk Mitigation Control	Responsibility
The site must not have more than the regulated limit of waste tyres and tyre products on the premises at any time. The regulated limit is specified in the site EPL.	Site Manager
All waste tyres must be always stored in their designated site locations as per the site storage management plan	Site Manager
All loads of inbound material must be visually inspected prior to acceptance. Non-conforming wastes must be segregated and deposited into appropriate on-site bins, or the load be rejected and returned to the generating site	All Staff
Non-conforming materials should be segregated and deposited into appropriate on-site bins based on waste type	All Staff
Non-conforming waste must not be held on site for more than two weeks, assuming Tyrex Rubber has a fortnightly commercial waste collection	Site Manager

Regular inspection of the site perimeter to ensure the security fencing is not damaged, and there is no visible litter generation or accumulation within the site and around the perimeter fencing.	Site Manager
Barrel stacking of truck tyres to help prevent spread of fire if one is to occur	All Staff

5.2 Amenity

The objectives of the amenity controls are to:

- Comply with the conditions of EPA License and the requirements of the Protection of the Environment Operations (Clean Air) Regulation 2021.
- Comply with the conditions of the EPA Licenses and the NSW State Noise Policy for Industry (2017).
- Prevent the attraction and proliferation of vermin on site

Table 5. Risk Mitigation Controls and Responsibilities - Amenity

Risk Mitigation Control	**Responsibility**
All noise, odour, dust and vermin complaints must be recorded in a Complaints and incidents Register and followed-up by the site manager within a week.	Site Manager
Waste bins to be located in sheltered area.	Site Manager
Putrescible waste, generated form onsite staff and office activities must not be held on site for more than two weeks	Site Manager
Vehicles and equipment must be routinely maintained in accordance with manufacturer's specifications and maintenance records kept.	Site Manager
Vehicles and equipment must be turned off when not in use, wherever practicable and safe to do so.	All Staff
Works or activities which have the potential to generate significant levels of noise must be planned and undertaken during standard working hours (7am – 6pm Monday to Friday, 7am to 4pm Saturday) if possible.	All Staff
All noise generating equipment, with the exception of vehicles, must be operated within a building at all times	Site Manager

Hardstand driveways and paths to be swept/cleaned to reduce the occurrence of mud or dirt being tracked on site.	Site Manager
Site boundary inspections for the emission of adverse odour and noise to be completed weekly, or as required	Site Manager
To prevent mosquito proliferation, or the emission of odours from stagnant water, outdoor tyre storage will be temporary only and a maximum of 7 days.	Site Manager

5.3 Fire and Emergency Response

The objectives of the fire and emergency response controls are to:

- Minimise ignition sources
- Ensure there is appropriate firefighting equipment and infrastructure on site
- Ensure that Fire and Rescue NSW's firefighting capabilities are not impacted by site design or material storage

Table 6. Risk Mitigation Control and Responsibilities - Fire and Emergency Response

Risk Mitigation Control	**Responsibility**
At all times a clear access for emergency and fire services vehicles and fire protection equipment (including fire hydrants and fire hoses) must be maintained.	All Staff
Foam extinguishers will be located within each forklift or loading equipment on site. Nine additional fire extinguishers are placed throughout the inside walls of the warehouse.	Site Manager
All grinding, cutting and welding activities require a hot works permit before work can proceed.	All Staff
Regular inspection and repair of electrical equipment, vehicles, machinery, security.	Site Manager
Maintain site clear of fine fuels or minimise the accumulation of fine fuels (i.e., tyre crumb) from around stored tyres.	Site Manager
No open fires permitted at any time, and restriction of smoking to designated areas.	All Staff
Infrastructure Controls	

Waste tyres at the site will be stored in one indoor storage bunker within the warehouse, along with two bunded storage areas outside.
All site fire safety systems are to be in compliance with BCA.
Five mains water supplied fire hydrants and four fire hose reels are situated throughout the warehouse.

5.4 Surface Waters

Standard site production operations do not generate industrial wastewater, with wastewater generation during standard operations restricted to that generated from staff amenities, and site cleaning. These wastewater sources are discharged to the reticulated Sydney Water sewerage system.

Within the site, stormwater is collected in a single connected stormwater drain, which then discharges to the council stormwater system.

In the event of a fire, the firefighting water used to extinguish the fire, which for tyre fires can contain contaminants such as oils, needs to be contained. The firefighting water can have negative impacts on the environment if released to the public stormwater system. Therefore, firefighting water will be retained onsite through the establishment of low-level trafficable bunds to create a closed catchment across the concrete apron of the site.

In the event of a fire emergency the site Pollution Incident Response Management Plan (PIRMP) will be activated. This Plan involves the activation of the site stormwater shut off valve that will ensure no water used for firefighting activities will enter the stormwater system. Any accumulated firefighting water would be removed by an EPA permitted contractor. Refer to the site PIRMP for further details.

The objectives of the surface water controls are to:

- Prevent the release of firefighting water to the stormwater system
- Ensure that water released off-side is in accordance with the Protection of the Environment Operations (General) Regulation 2009

Table 7. Risk Mitigation Controls and Responsibilities – Surface Waters

Risk Mitigation Control	Responsibility
The site Pollution Incident Response Management Plan (PIRMP) is to be maintained and up to date, including ensuring relevant staff are trained.	Site Manager
In the event of a fire, all firefighting water must be removed by an EPA permitted contractor for treatment and management.	Site Manager

All fuels, oils and lubricants stored on site must be held within a bunded area.	Site Manager
Infrastructure Controls	
Firefighting water will be held within the general site bunding which can hold 162,000L of water.	
Each waste storage bunker will be enclosed by a low-level trafficable bund, with enough capacity to retain up to 20-minutes of firefighting water from the automated sprinkler system.	
Discharge to off-site stormwater assets will be blocked by an automated shut-off sluice valve activated by the thermal detection system and interfaced to a monitoring service.	

5.5 Environmental Control Plans and Maps

Relevant environmental control plans and maps can be found in the following site-specific documents:

- Stormwater Management Plan
- Traffic Study
- Pollution Incident Response Management Plan
- Emergency Response Plan
- Waste Management Plan
- Fire Safety Study
- Operating Environmental Management Plan

5.6 Environmental Schedules

5.6.1 Complaints Register

Complaint Date	Complainant	Complaint description	Actions to resolve	Date of actions completed

5.6.2 Environmental (OEMP) Training Register

Name of trainee	Trained by	Date of training	Date set for retraining (where required)

5.6.3 Corrective Action Register

How was the corrective action issued?	Date corrective action was issued	Actions to be taken	Completion Date	Review date	Action Resolved (Signed by authorised personnel)

5.6.4 Site Inspection Checklist

System	Standard	Inspection and Testing	System Compliant (Y/N)
Hydrants	BCA E1.3, AS 2419.1:2017	6 months are as per AS 1851	
Extinguishers	BCA 1.6, AS2444-2001		
Hose Reels	BCA E1.4, AS2441-1998		
Detection Systems	AS 1603:2018	6 months or as per AS 1851 As per AS 1603:2018 – 6 Monthly	
Automatic sprinklers	AS2118.1:2017	6 months or as per AS 1851	
Fire system pump sets	AS2941:2013	Annually or as per AS 1851	
Fire panel		6 months or as per AS 1851	
Fire Doors		6 months or as per AS 1851	
Emergency lighting and exit signs	AS/NZS 2293.1-1998	6 months or as per AS 1851	
Electrical Equipment	AS3760:2010 In-service safety inspection and testing of electrical equipment	6 months or as per AS 1851	
Storage	Fire NSW “Guidelines for bulk storage of rubber tyres”	Routine – Daily checks and weekly stocktake	
Drains	N/A	Routine - Daily	

System	Standard	Inspection and Testing	System Compliant (Y/N)
Waste management	N/A	Routine - Daily	

5.6.5 Incident Reporting Form

INCIDENT REPORT FORM To be completed by person involved and the Site Manager				
COMPANY DETAILS:				
☐ **Tyrex**				
LOCATION (EMPLOYEE'S BASE LOCATION):				
☐ **Victoria Street, Smithfield**			☐ **Other (please specify):** _____	
Surname:		**First Name:**		
Department:		**Job title:**		
Status:	☐ **Full time** ☐ **Part time** ☐ **Casual** ☐ **Contractor/Visitor**			
DETAILS OF INCIDENT				
Name of person completing report:				
Date of Incident (or onset of symptoms):		**Time of incident:**		
Name of Manager the incident was reported to:				
TYPE OF INCIDENT				
Air emissions ☐ Fire ☐ Emission to air of gas, dust, fumes or other pollutants ☐ Noise, litter, light, odour, vibration or other nuisance ☐ Toxic gas or chemical explosion				
Cultural / Heritage ☐ Unauthorised, damage or disturbance of heritage items or sites ☐ Unauthorised, damage or loss of aboriginal archaeological artefacts or places of significance				
Flora (vegetation) / Fauna (animals) ☐ Unauthorised disturbance, damage or loss of flora or fauna ☐ Aquatic plant / biota damage or loss including fish death within a waterway or water body that has resulted from our works ☐ Spread of noxious weeds or diseases that cannot be managed appropriate with internal resources and/or have environmental impacts				
Land / Water ☐ Spillage, leakage or uncontrolled discharge of substances ☐ Spillage of special, hazardous or restricted leakage substances (e.g., oil, detergent, paint) ☐ Dumping of hazardous waste/ rubbish to land/ littering ☐ Waste management (escape or improper storage/disposal) ☐ Land, surface water or ground water contamination at Tyrex site				
Other risk ☐ Please specify:				
WHAT OCCURRED:				
☐ **Incident**	☐ **Near miss**		☐ **Non-compliance**	
LOCATION OF INCIDENT:				
TREATMENT OF INCIDENT:				
Name of Manager:				

Immediate response or treatment of incident (e.g., restraining access, scene preservation)	

INVESTIGATION REPORT FORM

This section must be completed by authorised Manager

DESCRIPTION OF INCIDENT / EVENTS:
Describe the task being performed at the time of incident
Describe the sequence of events leading up to the incident
Describe the equipment / tools involved
Describe the materials being handled at the time. Were the materials from a certain brand or client?
Describe any unusual conditions

WITNESS DETAILS (if applicable):	
Name of Witness:	
Position:	

Contact number:	

CONTRIBUTING FACTORS
List contributing factors that resulted in the incident / hazard (e.g., slippery floor, equipment failure, raised paver)

ROOT CAUSE ANALYSIS

☐ **People (Supervision, experience, training, fitness for work etc)**

☐ **Operational/Procedural (no or inadequate procedures in place, inadequate or inappropriate controls applied etc)**

☐ **Equipment/Materials (machinery, systems and absent/failed defences)**

☐ **Environmental conditions (physical environment- noise, poor housekeeping, slippery or uneven surfaces etc)**

TRAINING:
What training has been provided to the person involved prior to the incident / near miss?
☐ Induction ☐ Task Specific ☐ No training
Provide details:

PROPERTY DAMAGE DETAILS (if applicable):			
Description:		Asset Type: e.g., Fixed Plant	
Make:		Model:	
Serial #:		Asset #:	

Please detail what controls have been put in place to eliminate / control the hazard - include due date of controls
Immediate Controls: (Treatment of environmental incident, work ceased in affected area etc.)
Short Term Controls: (0-3 months)
Long Term Controls: (3-6 month)

5.6.6 Complaints Report

Complaints Report FORM To be completed by person making complaint and a Tyrex Representative			
COMPLANT CONCERNING			
☐ **Tyrex**			
LOCATION:			
☐ **Victoria Street, Smithfield**		☐ **Other (please specify):** _____	
COMPLAINEE DETAILS			
Surname:		**First Name:**	
Business		**Email**	
Phone			
DETAILS OF INCIDENT			
Name of person completing report:			
Date of Incident (or onset of symptoms):		**Time of incident:**	
Description of complaint:			
Tyrex employees involved in complaint			
CORRECTIVE ACTIONS			
Are corrective actions required?	☐ **Yes** ☐ **No**		
If yes, what actions are required?			
When are actions to be completed by?			
Who is responsible to completed the corrective action?			

6 Monitoring and Review

6.1 Site Monitoring

Tyrex will undertake site monitoring on a routine basis to no litter build up or release of materials off the site is occurring.

6.2 Environmental Auditing

Audits of the OEMP will be conducted on a reoccurring basis by an internal party to ensure the site is operating as per this document.

The audits will be a combination of a site walkthrough, document review and interviews with staff to ensure that controls and mitigation measures outlined in this document are being adhered to.

Where the audit identifies any non-conformance, corrective actions will be issued to ensure the site brings operations in line with the OEMP.

6.3 Corrective Action

If by the result of environmental monitoring, an environmental audit or an incident/complaint, a corrective action is issued, it will be appropriately investigated and completed to ensure the non-conformance is rectified.

All corrective actions that are issued and their subsequent resolvent are to be logged on an internal corrective action register.

6.4 EMP Review

Tyrex will continue to monitor and improve this OEMP document, and the risk mitigation controls outlines within.

This document will be reviewed by the Site Manager at a minimum every 2 years to review the risks presented by the operations, ensure risks are accurately reflected, and mitigation controls align with current operations. Revision of the OEMP is required where:

- Changes in site operations occur, including the addition of new sources of risk, such as chemicals, oils and fuel utilised and stored on site;
- Changes to the EPL require the management of additional environmental risks;
- Improvements to controls documented in the OEMP are to be implemented;
- Corrective actions are required in response to a site incident; or
- Any other appropriate updates as required

Appendix A - Risk Matrices

Likelihood matrix

(E) Very Likely	Very likely. The event is expected to occur in most circumstances as there is a history of regular occurrence
(D) Likely	There is a strong possibility the event will occur as there is a history of frequent occurrence
(C) Possible	The event might occur at some time as there is a history of casual occurrence
(B) Unlikely	Not expected, but there's a slight possibility it may occur at some time
(A) Very Unlikely	Very unlikely, but it may occur in exceptional circumstances. It could happen, but probably never will.

Consequence matrix

IMPACT	**ENVIRONMENTAL IMPACT** (ground water, waterways and water bodies, air, land)	**PEOPLE** (injury or death)	**PROPERTY**	**BUSINESS REPUTATION / STAKEHOLDER INTEREST**	**COSTS** (e.g. delays, legal, remediation)	**LEGAL & REGULATORY**
(5) Extreme	Impact extends beyond the site boundary; **and/or** long-term residual impacts >5yrs	Multiple or single death	Site closure for 12 months	National Media outrage	Costs to Event of up to $5 million	Resulting in high level litigation and/or penalties
(4) Severe	Impact covers most of the site); **and/or** longer-term residual impact (2-5yrs)	Serious health impacts on multiple or single persons or permanent disability.	Major damage and site closure for 3 months	National media attention	Costs to Event between $2.5 – $5 million	Resulting in low level litigation and/or penalties
(3) Major	Impacts are within a smaller percentage of the site; **and /or** medium-term residual impact (1-2yrs)	More than 10 days rehabilitation required for injured persons	Some damage and disruption to part of the operations	Local media and community concern	Costs to Event between $200,000 and $2.5 million	Notification and minor on the spot fine by regulator
(2) Moderate	Impacts within the immediate vicinity of the impact; **and** short-term residual impact <1 year	Injury to person resulting in lost time and claims	Minor damage and minimal delays to operations	Minor isolated concerns raised by stakeholders, customers	Costs to Event between $50,000 and $200,000	Notification and/or negotiations with regulator

IMPACT	ENVIRONMENTAL IMPACT (ground water, waterways and water bodies, air, land)	PEOPLE (injury or death)	PROPERTY	BUSINESS REPUTATION / STAKEHOLDER INTEREST	COSTS (e.g. delays, legal, remediation)	LEGAL & REGULATORY
(1) Minor	Impacts within immediate the vicinity of the impact; **and no** residual impact	Persons requiring first aid	Minor damage and no delays to operations	Minimum impact to reputation	Costs to Event up to $50,000	No impact

Issues were prioritised using the following matrix to identify whether the potential environmental risks associated with the request to increase recycling activities would be considered critical, high, medium or low prior to further assessment.

Risk matrix

		Likelihood				
		(A) Very Unlikely	(B) Unlikely	(C) Possible	(D) Likely	(E) Very Likely
Consequence	(5) Extreme	High	Critical	Critical	Critical	Critical
	(4) Severe	Medium	High	High	Critical	Critical
	(3) Major	Low	Medium	High	High	Critical
	(2) Moderate	Low	Low	Medium	High	High
	(1) Minor	Low	Low	Low	Medium	Medium