Site Based Management Plan

South East QLD Innovation Economy Fund – Industry Biotechnology Centre

CLIENT: WITMACK INDUSTRIAL PTY LTD

PROJECT NO.	**J002481**
STATUS	**FINAL**
DATE	**6/08/2025**
VERSION	**1**

TOOWOOMBA REGIONAL COUNCIL

APPROVED DOCUMENT

referred to in Council's Decision Notice dated

26 November 2025

This plan is subject to conditions of Approval Number

MCUI/2025/5515

Assessment Manager

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Document Control

Version	Purpose	Lead Author	Reviewer	Approved by	Date
1.	Final Report	RJM	LMT	LMT	6/08/2025

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1 Overview

1.1 Background

This Site Based Management Plan (SBMP) provides an environmental management framework for Witmack Industrial Pty Ltd (Witmack Industrial) for a proposed fertiliser and organic chemicals manufacturing facility at Vision Street, Wellcamp (hereafter 'the site'). The site will be located at proposed Lot 8 within a parent land parcel formally described as Lot 4 SP353522 (Figure 1). The proposed facility is located within the Toowoomba Regional Council (TRC) Local Government Area.

The operations at the site are considered to present a low risk of harm on local environmental values with the implementation of this SBMP. A copy of the SBMP shall be kept on site at all times.

1.2 Scope

The scope and application of this SBMP is provided in Table 1.

Table 1 Scope and application of this SBMP

Question	Answer
Who?	This SBMP applies to all personnel (staff, inspectors, tenants, sub-contractors, and site visitors) at the proposed facility under the control of Witmack Industrial.
What?	This SBMP applies to all environmental aspects of operational and maintenance activities at the proposed facility.
When?	This SBMP applies during the operations phase of the proposed facility.
Where?	This SBMP applies to the proposed facility located at proposed Lot 8 within a parent land parcel formally described as Lot 4 SP353522.
Why?	The purpose of this SBMP is to minimise the risk of environmental harm and to satisfy legal and other obligations for environmental protection and general environmental duty.

1.3 SBMP Objectives

The objectives of this SBMP are to:

- Describe the site and proposed operations.
- Provide site-specific control measures to minimise the risk of adverse environmental impact during operational activities.
- Define roles, responsibilities, and timing for the implementation of environmental control measures.
- Provide mechanisms for incident management and monitoring, review, and continual improvement of environmental performance at the site.

1.4 Biosecurity Matters

The SBMP specifically excludes the management of all biosecurity matters at the proposed facility.

Best practice mitigation measures for biosecurity waste shall be documented in a Biosecurity Management Plan to meet Witmack Industrial's General Biosecurity Obligation (GBO) under the *Biosecurity Act 2014*, including:

- Physical containment in accordance with Physical Containment Level 2 (PC2) for a large- scale facility.
- PPE and training for staff.

- Validated autoclaving procedures.
- Waste segregation and labelling.

Figure 1
Site Locality

Project: Site Based Management Plan

Client: Witmack Industrial Pty Ltd

Project No.: J002481

Compiled by: MJW Date: 29/07/2025
Approved by: RJM Date: 29/07/2025

Metres
0 110 220

Legend

- Site boundary
- Proposed Lot Layout
- Roads
- Cadastre

The content of this document includes third party data. Range Environmental Consultants does not guarantee the accuracy of such data.

Source: Cadastral data sourced from DNRME (2025). Aerial imagery sourced from NearMap (2025).

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2 Description of Operations and Maintenance

An overview of the facility's proposed operations is provided at Table 2.

Table 2 Site Operations

Aspect of Operations	Description
Facility Operator	• Witmack Industrial Pty Ltd
Registered Suitable Operator (RSO) Number	• RSO 100915764
Site	• Proposed Lot 8 within Lot 4 SP353522
Environmentally Relevant Activities (ERA)	The applicable ERAs to this EA application which are listed under Schedule 2 of the Environmental Protection Regulation 2019 are as follows: • ERA 7 (4)(a) - Chemical manufacturing - Manufacturing 200t to 5,000t of fertiliser in a year. • ERA 7 (5)(a)- Chemical manufacturing - Manufacturing, in a year, 200t to 1,000t of organic chemicals, other than organic chemicals to which items 1 to 4 apply. • ERA 61 (4) – Thermal waste reprocessing and treatment - thermally reprocessing or treating clinical waste or biosecurity waste.
Annual Throughputs	The proposed annual throughputs in relation to the applicable ERAs are as follows: • ERA 7 (4)(a) - Up to 5,000t/year of fertiliser. • ERA 7 (5)(a) – Up to 1,000t/year of organic chemicals. • ERA 61 (4) – Up to 40t/year of biosecurity waste. Note – The intent of the proposed facility is to enable different research and development tenants (e.g., Bio10) to manufacture fertiliser and organic chemical products at the facility under Witmack Industrial's approvals. Separate to this environmental assessment - Once the proposed facility has produced commercially viable products, the rate of manufacturing would be increased to larger commercial quantities to utilise the full manufacturing and storage capacity of the facility. The increased throughput would be subject to an EA Amendment application (as required) to operate within the ERA thresholds outlined above.

Site's Use and Operational Activities	<u>Manufacturing & Associated Storage</u>
	The biotechnology products of interest of this facility share the following processing stages shown in **bold** below. All manufacturing of fertiliser and organic chemical products will occur inside the Stage 1 Industry Biotechnology Centre.
	Raw material receival, handling and storage
	• Receival, handing and storage of the following raw material feedstocks:
	  • Molasses – co-product of sugar extraction from sugarcane.
	  • Botanical extracts and oils (e.g. thyme, anise), some imported from South Asia due to non-availability in Australia. 5% of total output volume ~50,000L per year (~1x intermediate bulk container (IBC) per week).
	  • Diatomaceous earth (sourced from both Australian and U.S. suppliers, with differing particle size profiles). 3% of total output ~ 30 tons per year ~(600kg per week).

Aspect of Operations	Description
	• Sea mineral concentrates (derived from marine evaporites or inland lake salts). 17% of total output volume ~ 170 tons per year (~3.5 IBC's per week). • Carbohydrates (e.g. molasses, glucose), citric acid, humates, and microbial/enzyme blends. • Sprouted grain. • Selected microbial cultures will also be used, which are cultivated under controlled conditions to produce the desired biological material. These microorganisms—commonly derived from natural sources such as soil, water, or plant matter— may undergo refinement to enhance their suitability for the production process. Within the bioreactor, they are maintained in a sterile, closely regulated environment to ensure consistent performance and process integrity. • Various storage tanks and silo storage will contain the feedstock materials. • The sprouted grain will be macerated. Post-maceration of sprouted grain, the feedstocks will create a feedstock for the digestion process. • Any other required mechanical pre-processing (e.g., milling, grinding) of feedstock materials will be undertaken offsite and will be received at the site pre-milled. **Bioreaction/fermentation** • The digestion process undertaken by the bioreactors and the biofermenters are largely the same and result in a "digestate" that is used in subsequent production processes. • The macerated sprouted grains will be a protein feedstock to the digestion system, as will the outputs of the bioreactors. • The bioreactors and fermenters may also create other compounds depending on the yeast or microalgal cultures used as inputs, which in turn will require a different feedstock to generate. The bioreactor production process is envisaged to include, but not be limited to, the following: • Microbial cultures or macerated sprouted grains are introduced into a sterile bioreactor or fermentation environment under tightly controlled conditions. • Process conditions such as temperature, pH, aeration, and agitation are continuously monitored and adjusted to optimise microbial activity. • Biological material is produced as the microbes grow and metabolise — this may include biomass, enzymes, or other target compounds. • The product is harvested, typically through filtration, centrifugation, or other separation techniques. **Downstream processing (formulation and homogenisation)** The downstream processing concentrates/recovers critical biomass, then formulates and stabilises to produce the final product. • The biomass will be processed to separate and purify the target biomass from the solution if required. • Bioreactor perfusion will require a cell retention device to hold and recycle cells using centrifuges and filtration systems (ultrasonic membrane). • A concentrate product may be produced from concentrated biomass.

Aspect of Operations	Description

	• Formulation and stabilisation of the biomass is key to optimizing shelf-life, controlling temperature, pH and light exposure and increase the application efficacy and efficiency. The following will be carefully selected and added to biomass to produce the final product:
	  ◦ Adjuvants, Surfactants, Stabilisers, Emulsifiers, Thickeners, Gelling agents, pH adjuster, Solvents, Antioxidants, Colorants Anti-foaming agents, Inert fillers, Preservatives, Nutrient sources and Carrier agents.
	• Some specific feedstock additives may include:
	  ◦ Botanical / Clove / Aniseed / Thyme Oil mix, Eucalyptus / Thyme Oil, Organic Wetting Agent, Neem oil, Phosphoric Acid / powder blend, Trace ingredients, Glycerine, Surfactant, Caprylic Acid, Milled Rock Phosphate, Enzymes, Diatomaceous Earth Powder, Citric Acid, Sea Minerals Extract.
	Packaging, labelling and distribution
	• The following products are proposed to be manufactured at the facility:
	  ◦ Fertilisers: Biofertilisers and Biostimulants.
	  ◦ Organic chemicals: Biopolymers and Bio-industrial products.
	• The processed products will enter an intermediate bulk container (IBC) filling machine to store the product within IBCs.
	• Packaging may also include vacuum-sealed bags (1-5L) and drums (5-20L).
	• All products will be transported to the onsite warehouses for temporary storage before being dispatched to customers.
	Quality control and regulatory compliance
	• A quality control lab will undertake testing and validation of the products when warranted.
	
	<u>Chemical Storage (Warehousing)</u>
	• Additional warehousing is proposed for Stages 2 to 4.
	• Some of the warehousing footprint will also be used as a logistics and distribution hub, which will include storage of liquid chemicals that are not manufactured at the Industry Biotechnology Centre.
	• It is understood that >200m^3 of liquid chemicals will be stored at the facility for these purposes in IBCs (1,000L containers).

Plant and Equipment	The following equipment lists were provided by the applicant:
	• Preliminary major equipment list for feed preparation:
	  ◦ Storage Tanks, Conveyors, Filters, Macerators, Composting vessel, Agitators, Pumps, Augers/Screw conveyors, Temperature, moisture and pH monitoring, and control and Vacuum conveyor.
	• Preliminary list of equipment required for the research and development laboratory:
	  ◦ Chromatography systems (HPLC & Flash), Phytotrons, Automated filling machines, Laminar flow hood, Autoclaves and sterilisation equipment, Centrifuge, Next generation sequencing (NGS) platforms, Spectrophotometers, Personal Protective Equipment (PPE), LINNA AI capabilities, IT infrastructure – computers, printers, 3d printer, etc., Biological Safety Cabinets (BSCs), Lab-scale bioreactors and fermenters, Orbital shaker, Vortex, Magnifying lamp, Clevenger

Aspect of Operations	Description

	distillation equipment, Soxhlet extraction equipment, Rotavapor, Extraction system, Growth chamber (25°C), Fume cabinets, Lab consumables and Microscopes.
	• Equipment list required for formulation and stabilisation:
	  • Mixers, Homogeniser, Agitated Tanks, Dosing Systems, Gas Fired Boiler and Pelletisers.
	• Equipment list required for packaging and storage:
	  • Storage tanks, Automated small container filling machine, Semi-automated/automated Intermediate Bulk Container (IBC) filling machine, Sealers/Vacuum Packaging, Bagging Machine, Storage shelves, Cold / Freezer Storage, Forklifts, Trolleys, Conveyors, Labelling machines and Quality Control Lab.
	• Primary equipment list for treating and managing liquid wastes:
	  • Screening filters, Clarifiers/Softeners, pH adjustment dosing systems, Activated carbon filters, Ultraviolet (UV) disinfection system, Reverse osmosis units, Evaporators and crystallisation, Ion exchange systems and Settlement tanks.

Hours of Operation	The proposed operating hours will be 24 hours, 7 days per week.
Wastes	The waste streams that will be generated at the facility are summarised below. All treatment systems (wastewater treatment and autoclaves) will be fully enclosed systems which will occur inside the Stage 1 Industry Biotechnology Centre. <u>Liquid waste from manufacturing</u> • The principal characteristics of the wastewater are the variant pH level, presence of biological matter, and possible residual solvents or reagents. Neutralisation, sterilisation and filtration of the liquid effluent may be required to allow for recycling and beneficial re-use in the facility. The facility shall be designed to capture sources of liquid waste in a sump within the floor of the manufacturing area, treat, store and recycle or dispose of accordingly to trade waste. • Minor quantities of condensate from the air compressor (a prescribed water contaminant) will be piped to the sump within the Industry Biotechnology Centre and treated with all other liquid effluents. <u>Solid waste from laboratory</u> • The primary characteristics of the solid waste generated from the laboratory section of the facility is the presence of biological matter. Deactivation of the biowaste is required prior to storage through autoclaving. The autoclaving process constitutes ERA 61 (4) Thermal waste reprocessing and treatment - thermally reprocessing or treating biosecurity waste. <u>Solid waste from manufacturing</u> • Biosecurity waste will not be generated from the manufacturing process in the early stages of being operational. However, as different feedstocks and additives are introduced by other tenants, autoclaving solid biosecurity waste from the manufacturing process may be required. • There is potential to recycle by-products and re-use in feedstock composting or development of cell cultures. Dosing systems may be required for pH adjustment of solid waste streams. • Solid waste will include unused feedstocks, packaging waste, oversized material, process slurry and feedstock contaminants, which will all be

Aspect of Operations	Description
	considered general waste. It is expected that all solid wastes will be collected and stored in covered containers or skips. No waste stockpiles are planned for the facility. General and recyclable waste • Packaging waste via recycling cardboard and waste separation streams. • General waste bins for all domestic waste.

2.1 Maintenance

To ensure optimum performance of critical equipment in mitigating the environmental impacts of the site's operations, routine inspection and maintenance activities shall be scheduled and implemented.

Maintenance programs and schedules shall be developed for the facility in accordance with legislative requirements and manufacturer's specifications. The purpose of site maintenance is to minimise the risk of equipment failure that could result in injury to people, impacts to site operations and service delivery and/or adverse environmental impacts. Maintenance records shall be retained as per Section 11.

3 Environmental Values, Potential Impacts and Mitigation Measures

3.1 Environmental Values

The relevant environmental values of the site and local area with regards to the facility's proposed operations are described in Table 3.

Table 3 Environmental values

Environmental value	Description
Surface water	The site is located in the Upper Oakey Catchment of the Condamine River. The local area drains to the north-west towards Dry Creek located approximately 1.4 km from the site. From this location, Dry Creek flows to the west where it enters Westbrook Creek and then into Oakey Creek, which flows to the north-west to the Condamine River. The site inspection confirmed that the mapped watercourse line located approximately 150 m north-east does not occur at the site, as it has been lawfully developed under previous approved works. The site inspection confirmed that there are no watercourses at the site.
Groundwater	There are 16 registered groundwater bores within a nominal 1 km buffer of the site. The groundwater in the local area is sub-artesian and is associated with basalt, volcanic ash, coal, and shale aquifers of the Main Range Volcanics and coal aquifers of the Walloon Coal Measures. The shallowest aquifer recorded in the area was 16.2 m below ground level in the Main Range Volcanics (bore report RN34769).
Soil	The site inspection confirmed that soils at the site mainly included reworked native materials such as reddish-brown silty clay soils (Ferrosols).

Amenity (air and noise)	The site is within an industrial zoned area. Land uses in the local area of relevance to ambient air and noise levels include (Figure 2):
	• Public Transport: Toowoomba Bypass/Gore Highway is located approximately 100 m south-east of the site.
	• Nearby industrial and commercial operations: Other businesses in the surrounding area include Vinidex, Pulse Data Centre, Compliant Transport Group, and the Greater Toowoomba Waste Management Facility, which includes the following ERAs:
	  ◦ ERA 54 - Mechanical waste reprocessing 1: Operating a facility for receiving and mechanically reprocessing, in a year, more than 5,000t of inert, non-putrescible waste or green waste only.
	  ◦ ERA 62 - Resource recovery and transfer facility operation 1: Operating a facility for receiving and sorting, dismantling, baling or temporarily storing-(c) category 2 regulated waste.
	  ◦ ERA 62 - Resource recovery and transfer facility operation 1: Operating a facility for receiving and sorting, dismantling, baling or temporarily storing-(b) general waste.
	• Rural residential and agricultural land uses occur in the broader landscape to the east, south and west of the site.
	Figure 2 shows the surrounding land uses, TRPS zoning and air and noise receptors proximate to the proposed facility.

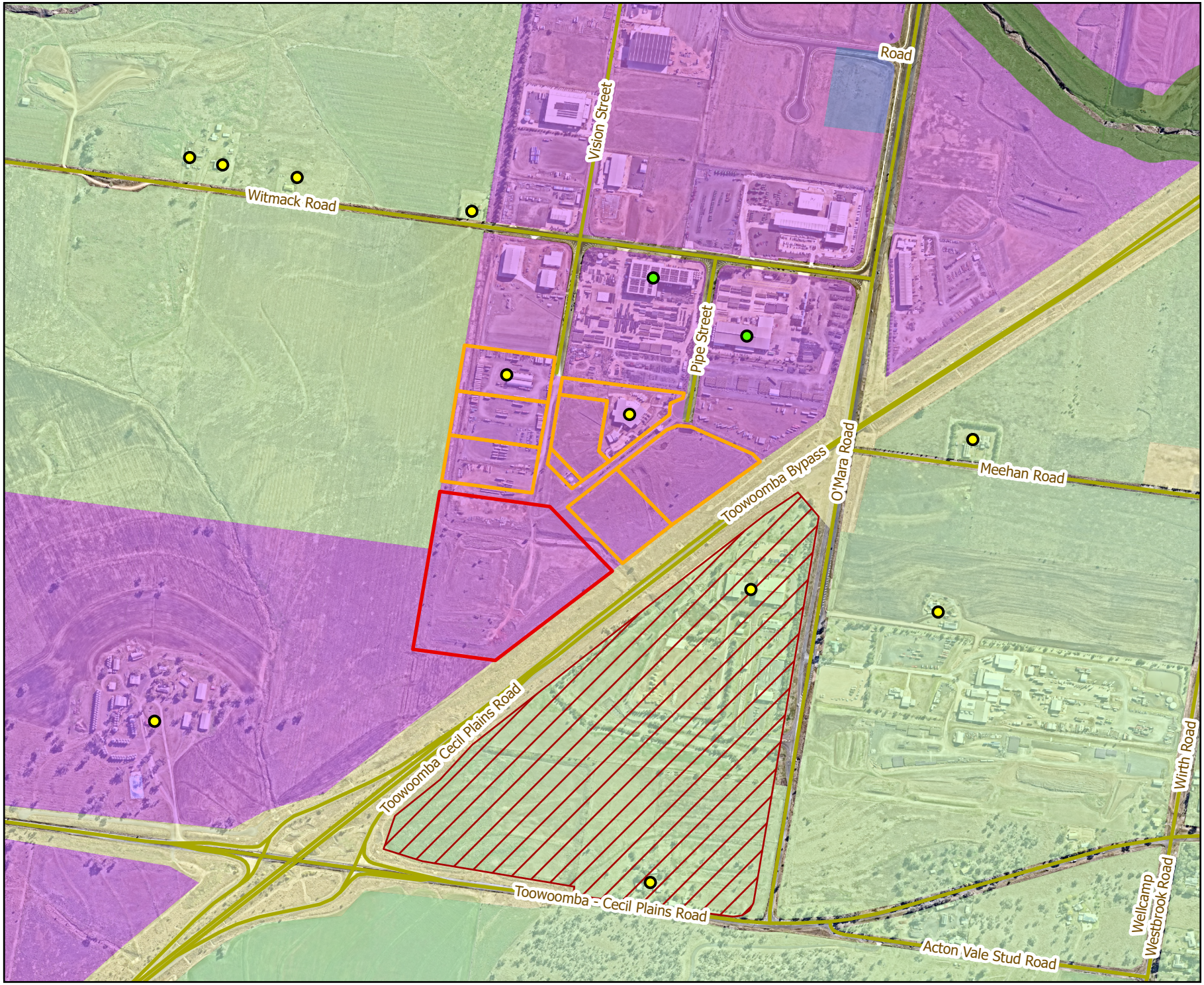

Figure 2 Sensitive Receptors

Project: Site Based Management Plan

Client: Witmack Industrial Pty Ltd

Project No.: J002481

Compiled by: MJW Date: 29/07/2025
Approved by: RJM Date: 29/07/2025

Metres
0 130 260

Legend

- Site boundary
- Proposed Lot Layout
- Roads
- EA locations - Prescribed ERAs

TRPS Land Use Zones

- Community Facilities
- Low Impact Industry
- Medium Impact Industry
- High Impact Industry
- Local Centre
- Open Space
- Rural

Sensitive Receptors

- Air & noise
- Air only

Source: Cadastral data sourced from DNRME (2025). Aerial imagery sourced from NearMap (2025).

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3.2 Potential Impacts and Mitigation Measures

Potential impacts on environmental values and key mitigation measures are outlined in Table 4 below. Reference should be made to the Environmental Control Plans (ECPs) at Section 4.3 for full details of mitigation measures.

Table 4 Potential impacts and mitigation measures

Environmental Value	Potential Impact	Likelihood	Consequence	Risk	Comment
Land	Spill/leak during plant maintenance activities or equipment failure causes a release of contaminants to soil.	Unlikely	Insignificant	Low	• All processing activities, treatment systems and storage of feedstocks and products shall be undertaken indoors within the Industry Biotechnology Centre. • Temporary storage of packaged products will occur indoors within the warehouse buildings. Rollover bunding to warehouses will provide adequate secondary containment. • Delivery and loadout of feedstocks and products shall occur within designated areas with awnings and sealed concrete hardstand. • All liquid and solid waste streams associated with the manufacturing process (including condensate from the air compressor) and the laboratory section shall be contained indoors within a designated bunded area. • The stainless steel fermentation and formulation tanks shall be located within concrete bunded areas, which will have a capacity of 110% of the largest tank. • Plant and equipment shall be maintained as per the manufacturer's specifications to prevent spills and leaks of hydrocarbons. • All maintenance and major service/repair works shall be undertaken by a contractor. Any regulated waste streams generated from these activities shall be contained and disposed of offsite by the engaged contractor.

Environmental Value	Potential Impact	Likelihood	Consequence	Risk	Comment
					• Spill kits shall be provided for immediate clean-up of any accidental spills/leaks. • Spills and leaks of contaminants at the site are not anticipated to present a significant soil contamination risk.
	Contaminated firewater is released from the site during an emergency and adversely impacts soil quality.	Unlikely	Minor	Low	• The SBMP outlines measures that shall be taken to reduce the risk of fire at the site and emergency response measures, including, the management of firewater. • The proposed facility will not include storage of ammonium nitrate or ammonium nitrate fertiliser. • In the event of a fire at the site, the use of firewater shall be minimised as far as reasonably practicable and measures to contain firewater onsite shall be employed as required. • The proposed facility is not anticipated to present a significant soil contamination risk in the event of a fire.
	Poor management of wastes causes a release to land.	Rare	Insignificant	Low	• All liquid and solid waste streams associated with the manufacturing process (including condensate from the air compressor) and the laboratory section shall be contained indoors within a designated bunded area. • Best practice mitigation measures for biosecurity waste shall be documented in a Biosecurity Management Plan to meet Witmack Industrial's General Biosecurity Obligation (GBO) under the *Biosecurity Act 2014*, including:

Environmental Value	Potential Impact	Likelihood	Consequence	Risk	Comment
					• Physical containment in accordance with Physical Containment Level 2 (PC2) for a large-scale facility. • PPE and training for staff. • Validated autoclaving procedures. • Waste segregation and labelling. • The facility shall be designed to capture sources of liquid waste in a sump within the floor of the manufacturing area, treat, store and recycle or dispose of accordingly to trade waste. • General and recyclable wastes from staff amenities shall be stored in covered bins and removed from site regularly. • All maintenance and major service/repair works shall be undertaken by a contractor. Any regulated waste streams generated from these activities shall be contained and disposed of offsite by the engaged contractor. • There shall be no onsite waste disposal or burning of wastes. • Storage of wastes at the site is not anticipated to present a significant soil contamination risk.
Water	Stormwater runoff from the site may entrain prescribed water contaminants which could impact offsite receptors in the Dry Creek catchment.	Unlikely	Insignificant	Low	• All processing activities, treatment systems and storage of feedstocks and products shall be undertaken indoors within the Industry Biotechnology Centre. • Temporary storage of packaged products will occur indoors within the warehouse buildings. Rollover bunding to warehouses will provide adequate secondary containment.

Environmental Value	Potential Impact	Likelihood	Consequence	Risk	Comment
					• Delivery and loadout of feedstocks and products shall occur within designated areas with awnings and sealed concrete hardstand. • All liquid and solid waste streams associated with the manufacturing process (including condensate from the air compressor) and the laboratory section shall be contained indoors within a designated bunded area. • The stainless steel fermentation and formulation tanks shall be located within concrete bunded areas, which will have a capacity of 110% of the largest tank. • Plant and equipment shall be maintained as per the manufacturer's specifications to prevent spills and leaks of hydrocarbons. • All maintenance and major service/repair works shall be undertaken by a contractor. Any regulated waste streams generated from these activities shall be contained and disposed of offsite by the engaged contractor. • Spill kits shall be provided for immediate clean-up of any accidental spills/leaks. • Spills and leaks of contaminants at the site are not anticipated to present a significant soil contamination risk. • The proposed facility is not anticipated to present a significant contamination risk to stormwater with the implementation of the SBMP and the Stormwater Management Plan (2025) prepared by Kehoe Myers Consulting Engineers.

Environmental Value	Potential Impact	Likelihood	Consequence	Risk	Comment
	Spill/leak during plant maintenance activities or equipment failure causes a release of contaminants to stormwater, surface water or groundwater.	Unlikely	Insignificant	Low	• Plant and equipment shall be maintained as per the manufacturer's specifications to prevent spills and leaks of hydrocarbons. • All maintenance and major service/repair works shall be undertaken by a contractor. Any regulated waste streams generated from these activities shall be contained and disposed of offsite by the engaged contractor. • Spill kits shall be provided for immediate clean-up of any accidental spills/leaks. • Spills and leaks of contaminants at the site are not anticipated to present a significant contamination risk to waters. • The SBMP outlines measures that shall be taken to prepare the site for heavy rainfall or a flooding event and associated emergency response measures. • Dry Creek is located approximately 1.4 km north-west of the site. • Groundwater is deep (at least 16 m) and at a low risk of impact due to most of the site being sealed by concrete hardstand. • Spills and leaks of contaminants at the site are not anticipated to present a significant contamination risk to waters with the implementation of the SBMP and the Stormwater Management Plan (2025) prepared by Kehoe Myers Consulting Engineers.
	Contaminated firewater is released from the site during an emergency and adversely impacts water quality.	Unlikely	Minor	Low	• Dry Creek is located approximately 1.4 km north-west of the site.

Environmental Value	Potential Impact	Likelihood	Consequence	Risk	Comment
					• Groundwater is deep (at least 16 m) and at a low risk of impact due to most of the site being sealed by concrete hardstand. • The SBMP outlines measures that shall be taken to reduce the risk of fire at the site and emergency response measures, including, the management of firewater. • The proposed facility will not include storage of ammonium nitrate or ammonium nitrate fertiliser. • In the event of a fire at the site, the use of firewater shall be minimised as far as reasonably practicable and measures to contain firewater onsite shall be employed as required. • The proposed facility is not anticipated to present a significant contamination risk to waters in the event of a fire.

	Poor management of wastes causes a release to waters.	Rare	Insignificant	Low	• All liquid and solid waste streams associated with the manufacturing process (including condensate from the air compressor) and the laboratory section shall be contained indoors within a designated bunded area.
					• Best practice mitigation measures for biosecurity waste shall be documented in a Biosecurity Management Plan to meet Witmack Industrial's General Biosecurity Obligation (GBO) under the *Biosecurity Act 2014*, including:
					  • Physical containment in accordance with Physical Containment Level 2 (PC2) for a large-scale facility.
					  • PPE and training for staff.

Environmental Value	Potential Impact	Likelihood	Consequence	Risk	Comment
					• Validated autoclaving procedures. • Waste segregation and labelling. • The facility shall be designed to capture sources of liquid waste in a sump within the floor of the manufacturing area, treat, store and recycle or dispose of accordingly to trade waste. • General and recyclable wastes from staff amenities shall be stored in covered bins and removed from site regularly. • All maintenance and major service/repair works shall be undertaken by a contractor. Any regulated waste streams generated from these activities shall be contained and disposed of offsite by the engaged contractor. • There shall be no onsite waste disposal or burning of wastes. • Dry Creek is located approximately 1.4 km north-west of the site. • Groundwater is deep (at least 16 m) and at a low risk of impact due to most of the site being sealed by concrete hardstand. • Storage of wastes at the site is not anticipated to present a significant contamination risk to waters.
Noise, Air, Odour, Light and GHG emissions	Noise emissions from the operation of plant/equipment and vehicle movements causes nuisance at sensitive receptors.	Unlikely	Insignificant	Low	• The existing acoustic environment is reflective of nearby road traffic noise and other businesses and industries proximate to the site (Figure 2). • The nearest noise sensitive receptors to the site are shown in Figure 2. The closest noise sensitive receptor (Pulse Data Centre – commercial receptor,

Environmental Value	Potential Impact	Likelihood	Consequence	Risk	Comment
					office) to the site is located approximately 210 m north-east of the site boundary. • All processing activities and storage of feedstocks and products shall be undertaken indoors within the Industry Biotechnology Centre. • A quantitative noise impact assessment will be provided to demonstrate compliance with the relevant noise assessment criteria. A qualitative response was prepared by ViridAU (Reference: V25-145.RT1.02) to outline the existing acoustic environment, noise sensitive receptors, potential sources of noise emissions and noise assessment criteria. • The SBMP outlines management measures that shall be implemented at the site to reduce noise emissions. • The conduct of ERA 7 (4)(a), ERA 7 (5)(a) and ERA 61 (4) at the site presents a low risk of impact to the acoustic amenity at nearby sensitive receptors.
	Air emissions from the operation of plant and equipment causes harm at sensitive receptors.	Unlikely	Insignificant	Low	• The existing air quality environment is reflective of nearby road traffic emissions and other businesses and industries proximate to the site, including the Greater Toowoomba Waste Management Facility approximately 310m east of the site (Figure 2). • The nearest air quality sensitive receptors to the site are shown in Figure 2. The closest air quality sensitive receptor (Pulse Data Centre – commercial receptor, office) to the site is located approximately 210 m north-east of the site boundary. • All processing activities, treatment systems and storage of feedstocks and products shall be

Environmental Value	Potential Impact	Likelihood	Consequence	Risk	Comment

					undertaken indoors within the Industry Biotechnology Centre.
					• Best practice mitigation measures for biosecurity waste shall be documented in a Biosecurity Management Plan to meet Witmack Industrial's General Biosecurity Obligation (GBO) under the *Biosecurity Act 2014*, including:
					  • Physical containment in accordance with Physical Containment Level 2 (PC2) for a large-scale facility.
					  • PPE and training for staff.
					  • Validated autoclaving procedures.
					  • Waste segregation and labelling.
					• An LPG-fired boiler will be used (as required) in the manufacturing process. The expected pollutants (PM_{10}, $PM_{2.5}$, NOx, SO_2, CO and VOCs) will be quantified and assessed in an air quality impact assessment to demonstrate compliance with the Environmental Protection (Air) Policy 2019.
					• A quantitative air quality and odour impact assessment will be provided to demonstrate compliance with the relevant air quality assessment criteria. A qualitative response was prepared by ViridAU (Reference: V25-145.IM1.02) to demonstrate the low level of risk to air quality amenity.
					• The SBMP outlines management measures that shall be implemented at the site to reduce air quality emissions.
					• The conduct of ERA 7 (4)(a), ERA 7 (5)(a) and ERA 61 (4) at the site presents a low risk of impact to the air quality amenity at nearby sensitive receptors.

Environmental Value	Potential Impact	Likelihood	Consequence	Risk	Comment
	Odour emissions from the feedstocks, fertiliser and organic chemicals manufacturing processes and storage of products causes nuisance at sensitive receptors.	Unlikely	Insignificant	Low	• All processing activities, treatment systems and storage of feedstocks and products shall be undertaken indoors within the Industry Biotechnology Centre. • Temporary storage of packaged products will occur indoors within the warehouse buildings. • A quantitative air quality and odour impact assessment will be provided to demonstrate compliance with the relevant odour amenity requirements. A qualitative response was prepared by ViridAU (Reference: V25-145.IM1.02) to demonstrate the low level of risk to odour amenity. It is understood that the feedstocks and products are not particularly odorous and that the aerobic manufacturing process is less likely to generate odorous emissions. • The SBMP outlines management measures that shall be implemented at the site to reduce potential odour emissions. • The conduct of ERA 7 (4)(a), ERA 7 (5)(a) and ERA 61 (4) at the site presents a low risk of impact to amenity from odour emissions at nearby sensitive receptors.
	Light emissions from the site's operations during the night-time period (10pm to 7am) causes nuisance at sensitive receptors.	Unlikely	Insignificant	Low	• Outdoor lighting at the site shall comply with Australian Standard *AS4282 Control of the Obtrusive Effects of Outdoor Lighting*. • Nuisance impacts in relation to light emissions from the site are unlikely.
	GHG emissions are released to the atmosphere as a direct result of the operation of the proposed facility	Unlikely	Insignificant	Low	The following information was collated to respond to Table 3 of the DETSI's Greenhouse gas emissions Guideline (2024)

Environmental Value	Potential Impact	Likelihood	Consequence	Risk	Comment

	(i.e., Scope 1 and Scope 2 under the DETSI's GHG Guideline) that significantly contribute to climate change.				regarding the application requirements for low emitters (i.e., generate <25,000t of CO_2-e per year):
					• Based on the operations conducted at the IBC centre for producing the necessary bioproducts, sources/activities that may release both direct (scope 1) and indirect (scope 2 and 3) GHG emissions include (ViridAU (Reference: V25-145.IM1.02):
					  • Fuel combustion from stationary and mobile plants (e.g. forklifts, light motor vehicles, heavy motor vehicles etc.).
					  • There may be CO2 emissions released from the natural gas combustion in the boiler. Hot water and steam from the boiler can be used for heating the fermentation vats and providing steam for the autoclave. CO2 is a GHG and typically releases 51.4 kg CO2-e/GJ of gas combusted.
					  • CO2 emissions generated and vented to the atmosphere from aerobic digestion of the feedstock.
					  • Electricity consumption from the mains power grid for operational purposes.
					  • Lifecycle emissions from feedstock and bioproducts.
					  • Transportation and logistics emissions associated with upstream (feedstock) and downstream (bioproducts) activities.
					• The following mitigation measures shall be implemented to minimise GHG emissions and improve future GHG emissions:

Environmental Value	Potential Impact	Likelihood	Consequence	Risk	Comment
					• GHG emissions shall adhere to the DETSI's GHG abatement hierarchy as far as reasonably practicable. • Reduce vehicle idling time. • Optimise and schedule vehicle operations to reduce fuel consumption. • Minimise transportation distances and optimise supply chains to reduce fuel consumption where reasonably practicable. • Maintain plant and equipment in accordance with the manufacturer's recommendations. • Consider GHG emissions when purchasing new plant and equipment.

4 Environmental Management

4.1 Management Commitment

Witmack Industrial is committed to providing a high standard of environmental performance, protection, and conservation of the natural environment at the site. This will be achieved by practicing good environmental management and the ongoing measurement, evaluation, and review of performance to ensure continual improvement.

Witmack Industrial are committed to:

- Complying with all legal and other obligations that apply to the site for environmental protection.
- Providing adequate resources to implement this SBMP and the associated environmental protection and monitoring measures.
- Achieving the environmental goals outlined in the Environmental Control Plans (ECPs).
- Monitoring compliance with this SBMP and seeking to continually improve environmental performance at the site.

4.2 Environmental Management Responsibilities

4.2.1 General Environmental Duty

All personnel at the site shall comply with their General Environmental Duty under the *Environmental Protection Act 1994* (EP Act). This means a person must not carry out any activity that causes, or is likely to cause environmental harm, unless all reasonably practicable measures to prevent or minimise the harm have been taken.

4.2.2 Duty to Notify of Environmental Harm

All persons have a duty under the EP Act to notify the Department of the Environment, Tourism, Science and Innovation (DETSI) of incidents or emergencies that cause or threaten material or serious environmental harm. This obligation is detailed further at Section 7.

4.2.3 Duty to Restore the Environment

All persons have a duty under the EP Act to take actions as soon as reasonably practicable to rehabilitate or restore the environment as far as reasonably practicable to its condition before the harm was caused. The duty to restore applies if a person has caused or permitted an incident involving contamination to occur that results in unlawful environmental harm.

When deciding the measures required to restore the environment, regard for the following must be had:

- The nature and extent of the environmental harm caused by the contamination.
- The sensitivity of the receiving environment to remedial measures that might be taken in relation to the environmental harm.
- The current state of technical knowledge for remedial measures that might be taken in relation to the environmental harm.
- The likelihood of successful application of the different measures that might be taken in relation to the environmental harm.

- The financial implications of the different measures that might be taken in relation to the environmental harm.

The Duty to Restore the Environment Information Sheet can be downloaded from the DETSI website.

4.2.4 Roles and Responsibilities

All personnel, including sub-contractors and visitors, are responsible for environmental protection during operations and maintenance works at the site. Responsibilities and reporting lines for environmental matters are described in Table 5.

Table 5 Roles and responsibilities

Role	Responsibilities	Reports to
Site Manager	• Ensure operations comply with all relevant regulatory and project requirements. • Monitor changes to legislation which may affect site operations. • Ensure this SBMP is fully implemented, and environmental protection is not secondary to operational requirements. • Provide adequate resources for the implementation of the SBMP. • Ensure that all personnel understand, accept, and fully carry out their obligations for environmental protection and that they are adequately trained, instructed, and resourced to fulfil their obligations. • Undertake the annual environmental management review and SBMP review. • Seek relevant approvals for any required works or changes to the site conditions outside the limits of the applicable approvals/permits/plans. • Conduct environmental incident investigations as required. • Direct that works be stopped immediately where there is an actual or potential risk of environmental harm. • Comply with General Environmental Duty, Duty to Notify of Environmental Harm, and Duty to Restore the Environment.	Regulatory authorities
Site Supervisor	• Ensure operations comply with all relevant regulatory and project requirements by undertaking routine monitoring of site operations. • Ensure this SBMP is fully implemented, and environmental protection is not secondary to operational requirements. • Ensure that all personnel understand, accept, and fully carry out their obligations for environmental protection and that they are adequately trained, instructed, and resourced to fulfil their obligations. • Assist with the annual environmental management review and SBMP review. • Assist with environmental incident investigations as required.	Site Manager

	• Direct that works be stopped immediately where there is an actual or potential risk of environmental harm. • Comply with General Environmental Duty, Duty to Notify of Environmental Harm, and Duty to Restore the Environment.	
Other personnel (includes staff, visitors, inspectors, and contractors)	• Regard environmental protection as a central theme in their actions. • Conduct operations as per the SBMP to reduce the risk of adverse environmental impacts. • Report any defects in plant or equipment and keep the workplace in a tidy state. • Notify the Site Supervisor or Site Manager of any unexpected changes to site conditions. • Assist with environmental incident investigations as required. • Stop works where there is an actual or potential risk of environmental harm and notify the Site Supervisor or Site Manager. • Comply with General Environmental Duty, Duty to Notify of Environmental Harm, and Duty to Restore the Environment.	Site Manager or Site Supervisor

4.3 Environmental Control Plans

Environmental control plans (ECPs) have been developed to document site-specific environmental management measures to address the key environmental management considerations for the site. Alternative controls to those outlined in the ECPs may be adopted if the objectives of the relevant ECP can still be met and should be documented in an updated SBMP. The ECPs provide management measures in relation to:

1. Amenity (noise, air, odour, and light) management.
2. Land and water management.
3. Dangerous goods and hazardous chemical management measures.
4. Waste management.

ECP 1 – Noise, air, odour, and light management measures		
Guidelines and Legislative Requirements		
EP Act, EPP Air, EPP Noise, Development Approval and Environmental Authority.		
Performance Goal		
No complaints of nuisance regarding noise, air, odour, or light emissions from the site.		
Management Actions	**Responsibility**	**Frequency**
Air Quality and Odour		
All processing activities, treatment systems and storage of feedstocks and products shall be undertaken indoors within the Industry Biotechnology Centre.	All persons	At all times
Trucks transporting feedstock materials and products to and from the site shall be covered to prevent spills or air blown emissions.	Drivers	At all times
The proposed air emission control systems associated with the autoclave and gas fired boiler shall be regularly maintained and serviced to ensure enhanced removal of particulate matter emissions.	Site Manager	At all times
No burning of wastes or other materials on site.	All persons	At all times
Waste bins shall be covered and emptied regularly to prevent odour emissions and windblown litter.	Site Manager	At all times
Noise		
All processing activities, treatment systems and storage of feedstocks and products shall be undertaken indoors within the Industry Biotechnology Centre.	All persons	At all times
Maintain plant and equipment in accordance with the manufacturer's requirements to minimise noise emissions.	Site Manager	At all times
Mechanical plant and equipment at the site shall be selected, sited, and acoustically treated as necessary to satisfy Development Approval and Environmental Authority conditions and the EP Act.	Site Manager	At all times
No unnecessary revving or idling of engines on mobile and stationary machines and shut down any equipment not in use.	All persons	At all times
Lighting		
All external lighting at the site shall comply with Australian Standard *AS4282:2019 Control of the Obtrusive Effects of Outdoor Lighting*.	Site Manager	At all times
Monitoring		
Monitoring of noise, air, odour, and light emissions at sensitive receptors shall be undertaken upon written request by the administering authority in response to a complaint of nuisance.	Site Manager	As required

Site inspections shall include inspection of potential sources of air, odour, noise, and light emissions from the site.	Site Manager	Monthly
Corrective Actions		
Complaints and incidents in relation to air, odour, noise, and light emissions from the site shall be investigated by the Site Manager to identify necessary corrective actions for implementation.		
Reporting		
Monitoring results shall be provided to the administering authority within 20 business days of a request to conduct nuisance-based monitoring.	Site Manager	As required

ECP 2 – Land and water management measures		
Guidelines and Legislative Requirements		
EP Act, EPP Water and Wetland Biodiversity, Environmental Authority and Development Approval.		
Performance Goal		
To minimise the risk of adverse impacts to soil or water (stormwater, surface water, and groundwater) resources and on downstream environmentally sensitive areas.		
Management Actions	**Responsibility**	**Frequency**
General		
All processing activities shall be undertaken indoors within the Raw Materials Shed, Silo & Process Tower and the Finished Production Shed.	All persons	At all times
All storage and handling of raw materials and products at the site shall be undertaken in accordance with ECP 3 – Dangerous goods and hazardous chemical management measures where applicable.	All persons	At all times
All solid and liquid wastes generated at the site shall be managed in accordance with ECP 4 – Waste management measures.	All persons	At all times
Spills and Leak Prevention and Response		
Spilt/leaked feedstock materials and products shall be recovered and contained immediately.	All persons	At all times
Personnel shall be trained in spill prevention and spill response/control procedures.	Site Manager	At all times
Spill kits shall be located onsite. Ensure that spill clean-up kits are stocked and replenished appropriately and are in the correct location for use.	Site Manager	At all times
The Safety Data Sheets (SDS) for dangerous goods and hazardous substances shall be kept on site.	Site Manager	At all times
Emergency – Fire		
During operations undertake all management measures to prevent a fire.	All persons	At all times
Staff shall be trained to respond to a fire emergency and the use of fire safety equipment.	Site Manager	At all times
In the event of a fire at the site, the use of firewater shall be minimised as far as reasonably practicable and measures to contain firewater onsite shall be employed as required.	Site Manager and Site Supervisor	During a fire
Monitoring		
Site inspections shall include inspection of all storage and processing areas, particularly the bulk product storage bins, to ensure adequate controls are in place to minimise soil or water contamination.	Site Manager	Monthly
Inspect spill kits and replenish as required.	Site Manager	Monthly and after a spill incident

Corrective Actions		
Incidents in relation to soil and water management shall be investigated by the Site Manager to identify necessary corrective actions for implementation.		
Reporting		
If runoff from the site causes or threatens serious or material environmental harm, the incident shall be notified to the DETSI (refer to Section 7.3).	Site Manager	As required

ECP 3 – Dangerous goods and hazardous chemical management measures		
Guidelines and Legislative Requirements		
Development Approval, Environmental Authority, *AS1940-2017: The Storage and Handling of Flammable and Combustible Liquids* and Workplace Health and Safety Queensland's Managing Risks of Hazardous Chemicals in the Workplace – Code of Practice 2021.		
Performance Goal		
No environmental harm caused by the storage, use or handling of dangerous goods or hazardous chemicals at the site.		
Management Actions	**Responsibility**	**Frequency**
Spills shall be cleaned up immediately. Personnel shall be trained in spill prevention and spill response/control procedures.	All persons	At all times
Spill kits shall be located on-site. Ensure that spill clean-up kits are stocked and replenished appropriately, and in the correct location for use.	Site Manager	At all times
No onsite disposal of wastes shall be permitted.	All persons	At all times
The SDS for dangerous goods and hazardous substances shall be kept on site.	Site Manager	At all times
All dangerous goods and/or hazardous substances shall be classified, stored, labelled, and used in accordance with the Code of Practice, SDS, manufacturer's requirements and the relevant Australian Standard.	Site Manager	At all times
Daily pre-start checks shall be completed on all plant and equipment.	Plant Operators and Site Supervisor	Daily
Plant and equipment shall be operated and maintained in accordance with the manufacturer's specifications.	Site Manager	At all times
Monitoring		
Inspect dangerous goods and hazardous chemical storages.	Site Manager	Monthly
Pre-start checks of plant and equipment to identify maintenance requirements.	Plant Operators and Site Supervisor	Daily
Corrective Actions		
Incidents in relation to dangerous goods and hazardous chemicals shall be investigated by the Site Manager to identify necessary corrective actions for implementation.		
Reporting		
Large spills or leaks that cause or threaten serious or material environmental harm shall be notified to the DETSI (refer to Section 7.3).	Site Manager	As required
An SDS register shall be kept on site and updated as required.	Site Manager	At all times

ECP 4 – Waste management measures		
Guidelines and Legislative Requirements		
EP Act, *Waste Reduction and Recycling Act 2011*, Development Approval and Environmental Authority.		
Performance Goals		
• Wastes correctly segregated and stored. • No illegal waste disposal or burning of wastes. • All wastes transported by appropriately licensed waste transporters to waste facilities that are licensed to receive the wastes. • All regulated waste tracking documents and receipts retained.		
Management Actions	**Responsibility**	**Frequency**
The site shall be kept in a clean and tidy state.	All persons	At all times
A site-specific Biosecurity Management Plan shall be prepared to meet Witmack Industrial's General Biosecurity Obligation (GBO) under the *Biosecurity Act 2014* for a Physical Containment Level 2 (PC2) facility to manage biosecurity waste.	Site Manager	Prior to commencing operations.
Spilt feedstock materials and products shall be recovered. No disposal of feedstock materials or products shall occur at the site.	All persons	At all times
General and recyclable wastes shall be segregated and stored in covered bins to prevent windblown litter, access by birds/vermin and rainfall ingress.	All persons	At all times
Bins and other waste storage devices shall be clearly labelled.	All persons	At all times
General wastes shall be removed regularly for offsite disposal or recycling at a licensed waste/recycling facility.	Site Manager	At least weekly for putrescible wastes
Wastewater generated from the manufacturing process (including minor quantities of condensate from the air compressor) shall be contained in a sump within the Stage 1 Industry Biotechnology Centre and treated by the onsite wastewater treatment plant.	Site Manager	At all times
The wastewater AST shall have a float level indicator & high level audible & visual alarm when at or above 80% capacity.	Site Manager	At all times
Wastes of any kind shall not be burnt or disposed of on site.	All persons	At all times
Retain documentation relating to the removal and disposal of regulated waste and trade waste.	Site Manager	At all times
Monitoring		
Waste storage areas shall be inspected for leaks, damage and/or maintenance requirements.	Site Manager	Monthly
Corrective Actions		
Incidents in relation to waste management and disposal shall be investigated by the Site Manager to identify necessary corrective actions for implementation.		
Reporting		

Retain records/receipts of regulated waste removal from the site.	Site Manager	At all times and retain for at least five (5) years

5 Rehabilitation Plan

Where disturbed land at the site will not be subject to any further disturbance, it shall be rehabilitated. Rehabilitation shall be planned and executed to ensure that:

- Any infrastructure that is not required by the landholder is removed and any infrastructure that is required by the landholder is left in a safe and stable condition.
- All liquid and solid wastes are removed from the site.
- Suitable erosion and sediment control measures are established and sustained for exposed earthen surfaces to minimise erosion.
- The quality of soil and water, including seepage, released from the site does not cause environmental harm.
- The potential for environmental nuisance caused by dust is minimised.
- The final landform is stable and protects the safety of humans and wildlife.

6 Complaint Management

All complaints shall be forwarded to the Site Manager who shall maintain and update the Complaint Log (Appendix A) for all complaints received. The following details must be recorded for all complaints received:

- Time, date, name and contact details of the complainant.
- Reason for the complaint.
- Any investigations undertaken.
- Conclusions formed.
- Any actions taken.

All complaints shall be investigated and managed in accordance with Figure 3 below.

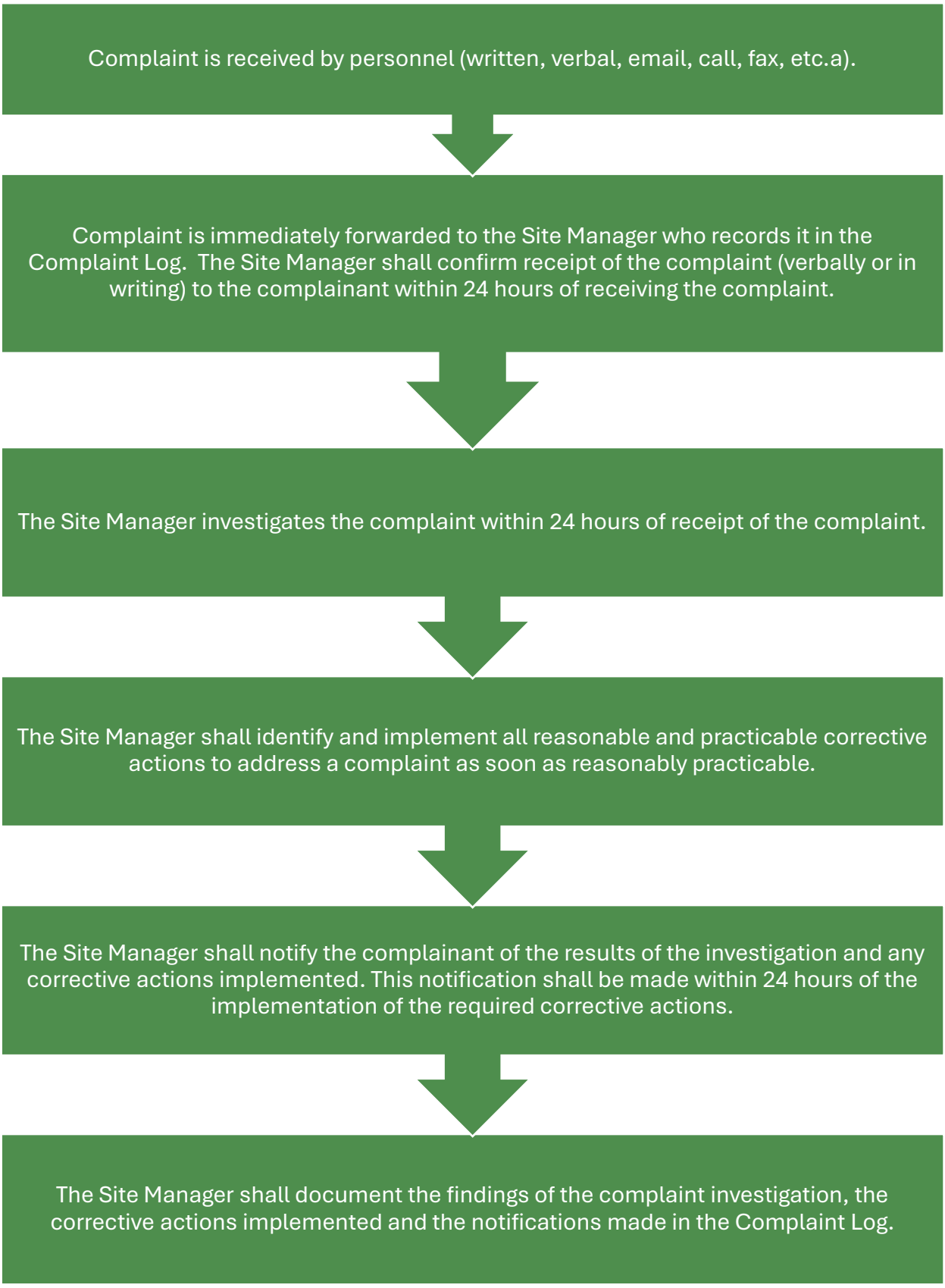

Figure 3 Complaint Management Procedure

7 Environmental Hazards, Incidents & Emergencies

7.1 Categories of Environmental Harm

There are three (3) categories of environmental harm for environmental incidents and emergencies under the EP Act (Table 6).

Table 6 Categories of environmental harm

Category	Definition	Internal reporting required?	External reporting required?
Nuisance	An unreasonable interference or likely interference with an environmental value caused by: • Aerosols, fumes, light, noise, odour, particles, or smoke; or • An unhealthy, offensive, or unsightly condition because of contamination; or • Another way prescribed by regulation.	Yes	Yes, but only if a breach of an EA condition (refer to Section 12.1)
Material	Environmental harm that: • Is not trivial or negligible in nature, extent, or context; or • Causes actual or potential loss or damage to property of an amount of, or amounts totalling, $10K-$100K; or • Results in costs of $10K-$100K for actions to prevent or minimise the harm and rehabilitate or restore the environment to its condition before the harm. • Note – Matters which are characterised as environmental nuisance (e.g., odour, noise, etc.) may constitute environmental harm that is material.	Yes	Yes
Serious	Environmental harm that: • Is irreversible, or a high impact or widespread; or • Causes harm to an area of high conservation value or special significance; or • Causes actual or potential loss or damage to property of an amount of, or amounts totalling more than $100K; or • Results in costs of more than $100K for actions to prevent or minimise the harm and rehabilitate or restore the environment to its condition before the harm. • Note – Matters which are characterised as environmental nuisance (e.g., odour, noise, etc.) may constitute environmental harm that is serious.	Yes	Yes

7.2 Environmental Hazards, Incidents & Emergencies

7.2.1 Hazard and Incident Reporting

All environmental hazards, incidents and emergencies must be reported to the Site Manager as soon as possible but no longer than 24 hours after becoming aware of the matter.

All hazards, incidents and emergencies shall be investigated by the Site Manager and any other relevant personnel to identify root causes and the appropriate course of action taken to prevent a recurrence. Corrective actions are to be evaluated based on the hierarchy of controls with the aim of elimination of the impacts identified. This SBMP may require review and amendment following identification of a hazard, incident, or emergency.

If a hazard, incident, or emergency causes or threatens material or serious environmental harm, refer to Section 7.3 below for external reporting requirements.

7.2.2 Incident Management & Investigation

The Site Manager shall investigate all incidents to determine:

- Nature, type, location, and extent of the incident and the affected area.
- Actual and/or potential environmental impacts of the incident.
- Suspected cause/s of the incident.
- Measures required to stop any further environmental harm.
- Remedial measures required to correct any environmental harm.
- Management measures to be implemented to prevent a recurrence of the incident.
- Incident reporting requirements for regulatory authorities (refer to Section 7.3 below).

The requirements for the environmental assessment of impacts of an incident shall be determined by the Site Manager, who may seek advice from an environmental consultant. If an incident involves serious or material environmental harm or a breach of an Environmental Authority condition, the regulatory authority may also advise/direct the environmental assessment.

The assessment may include environmental monitoring of a contaminant release. Based on the nature and type of the incident, the Site Manager, in consultation with their environmental consultant, shall determine:

- Sampling and analytical requirements.
- Applicable guidelines or thresholds to apply to data for assessing compliance and level of impact.

7.3 External Reporting of Material or Serious Environmental Harm

All persons who become aware, or ought reasonably to have become aware, have a duty to notify the DETSI of incidents or emergencies that cause or threaten material or serious environmental harm. Environmental incidents or emergencies that cause or threaten material or serious environmental harm shall be reported to the DETSI in accordance with Table 7.

Table 7 External reporting of material or serious environmental harm

By	To	Within	Method
Employees and maintenance contractors	Site Supervisor or Manager	24 hours of becoming aware of the matter.	Verbal or written.
	If the Site Supervisor or Manager cannot be contacted, notification must be made directly to the DETSI.		Verbal initially followed by written.
Site Supervisor Manager	DETSI	24 hours of becoming aware of the matter. This 24-hour period starts as soon as the Manager is first notified.	Verbal initially followed by written.

The Duty to Notify of Environmental Harm Guideline and the standard written notification form to the DETSI for material or serious environmental harm can be downloaded from the DETSI website. Contact details for the DETSI are provided in Table 8.

Table 8 DETSI contact details

Method of contact	Details
Pollution Hotline	1300 130 372
Fax	(07) 3330 5875
Email	pollutionhotline@detsi.qld.gov.au
Web	https://www.detsi.qld.gov.au/
Registered Post	Permit and Licence Management Department of the Environment, Tourism, Science and Innovation GPO Box 2454 Brisbane 4001

8 Emergency Preparation and Response

This section provides an overview of the response requirements for environmental emergencies that could reasonably be expected to occur at the site during operations and present a risk of harm to the environment. Incident reports and investigations are to be completed for any emergency at the site.

8.1 Biosecurity

All biosecurity events shall be managed in accordance with a site-specific Biosecurity Management Plan to meet Witmack Industrial's General Biosecurity Obligation (GBO) under the *Biosecurity Act 2014* for a Physical Containment Level 2 (PC2) facility.

8.2 Fire

A fire has the potential to threaten the safety or health of people, cause environmental harm, and/or damage infrastructure and equipment. The risk of fire at the site shall be reduced by:

- Provision and maintenance of firefighting equipment (e.g., fire extinguishers) at strategic locations at the site.
- Maintain plant and equipment in accordance with the manufacturer's specifications.
- Training site personnel in emergency response to fire and the use of fire safety equipment.
- Regular housekeeping at the site to remove wastes to prevent the build-up of combustible materials.
- The proposed facility will not include storage of ammonium nitrate or ammonium nitrate fertiliser.

8.3 Spill Response

A spill has the potential to threaten the safety or health of people, create a fire hazard, or cause environmental harm. Where a spill occurs, consult the SDS for spill clean-up procedures and any necessary Personal Protective Equipment (PPE).

Spill response kits shall be kept at strategic locations on site. Equipment contained in the spill response kits shall be replenished upon use, equal to the specified list contained with the kit. The Site Manager shall ensure that spill response kits are inspected monthly (or after a spill incident), and any missing items are replaced.

A spill response flow chart is provided at Figure 4 below. If a spill cannot be safely contained and controlled with onsite resources, the matter shall be referred immediately to emergency services by calling triple zero (000).

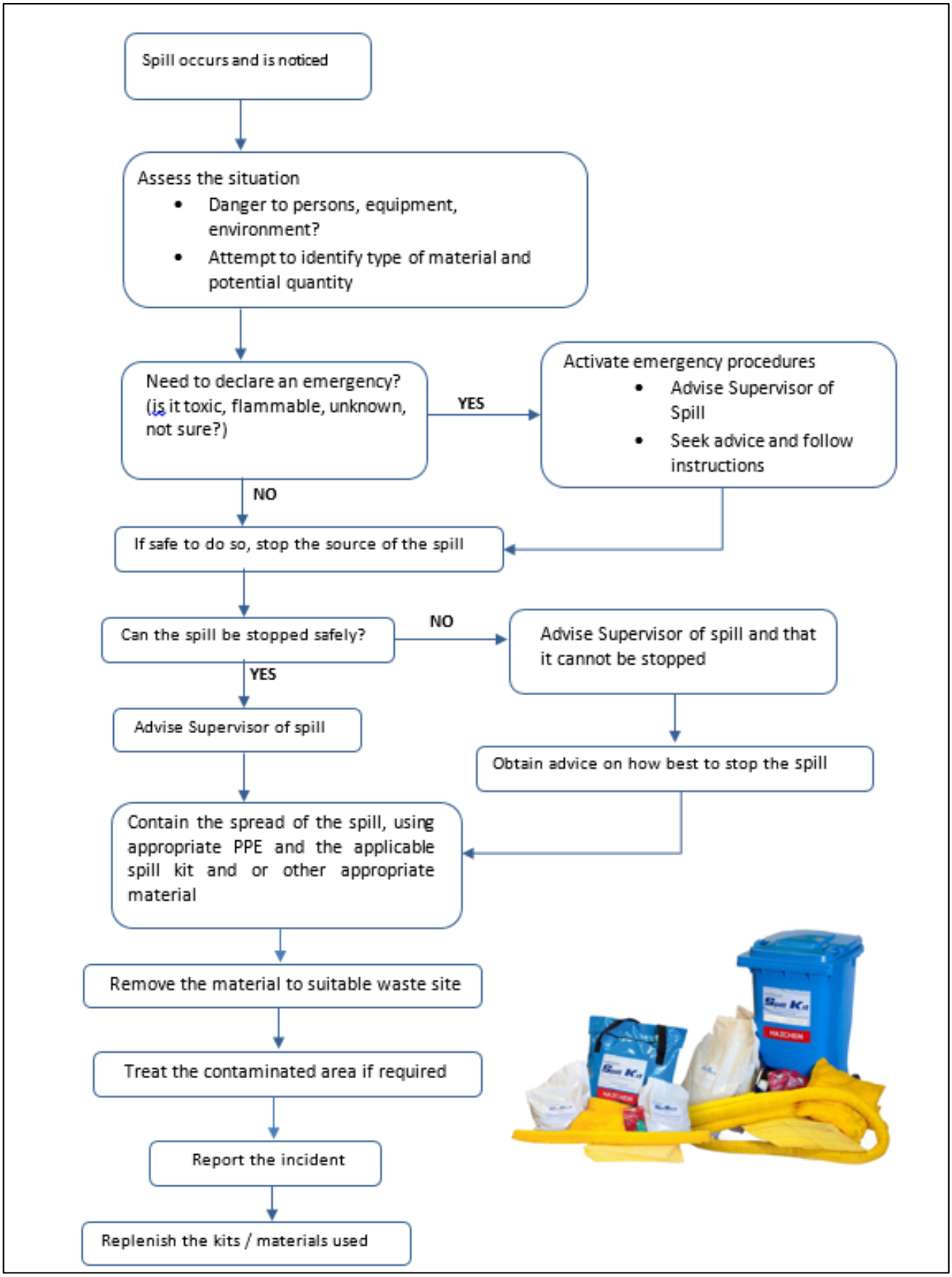

Figure 4 Spill Response Procedure

9 Inspections & Monitoring

9.1 Site Inspections

The Site Manager shall undertake monthly environmental site inspections of operations and work practices to:

- Ensure activities are being undertaken in accordance with approved procedures.
- Confirm that appropriate controls have been identified and are in place to minimise the risk of environmental harm.
- Identify any maintenance or workplace practice issues that need to be addressed.
- Identify potential environmental hazards that need to be addressed.

9.2 Environmental Monitoring

Environmental impacts of routine and non-routine operations, incidents and emergencies shall be assessed. Where environmental monitoring is required, it shall be completed by suitably qualified and experienced persons in accordance with legislated standards and guidelines.

All equipment used for environmental monitoring shall be fit for purpose and maintained, operated, and calibrated in accordance with the manufacturer's specifications. Where analysis of samples is required, samples shall be submitted to a National Association of Testing Authorities (NATA) accredited laboratory.

Environmental monitoring records shall be retained and managed in accordance with Section 11.

10 Training and Communication

10.1 Environmental Awareness Training

10.1.1 Inductions

A site induction shall be given to all personnel (staff, contractors, and visitors) upon first entry to the site and annually thereafter to ensure they are aware of their responsibilities and are competent to carry out works at the site. This shall include environmental awareness training which addresses the following:

- General Environmental Duty.
- Duty to Notify of Environmental Harm.
- Duty to Restore the Environment.
- Requirements of the SBMP.
- Environmental complaint, hazard and incident management and reporting.
- Emergency response.

Training records shall be maintained and kept on site.

10.1.2 Ongoing Training

Ongoing staff training shall be undertaken as new activities are ready to start, new environmental risks are identified, or new processes are developed. This will usually be incorporated into a regular toolbox meeting and/or risk assessments prior to undertaking the job. Records of the special training sessions will be in a similar format to toolbox meeting minutes.

10.2 Internal Communication of Environmental Information

The Site Manager shall communicate information regarding environmental matters to site personnel on an as-required basis. The Site Manager shall determine the method of communication.

Protocols for internal reporting of environmental hazards, incidents and emergencies are outlined at Section 7.

10.3 Communication with Regulatory Authorities

There is no requirement for routine communication with regulatory authorities regarding environmental matters. Communication with regulatory authorities shall be on an as-required basis, examples of instances where communication may be required include:

- Environmental hazards, incidents and emergencies that cause or threaten material or serious environmental harm shall be reported to regulatory authorities in accordance with Section 7.
- Any breach of the conditions of the Environmental Authority must be reported by the Site Manager to the DETSI within 24 hours of becoming aware of the breach.
- Any Notifiable Activities undertaken at the site (refer to Schedule 3 of the EP Act) shall be notified to the DETSI with 20 business days of becoming aware of the activity.

11 Records Management

The Site Manager shall be responsible for managing environmental records for the site in accordance with Witmack Industrial's document control procedures.

All environmental and site maintenance records shall be made available upon request by regulatory authorities. All environmental and site maintenance records shall be retained for no less than five (5) years.

Examples of records may include, but not be limited to, the following:

- Site observations and site diary entries.
- Complaints.
- Incidents, incident investigations and associated restoration works.
- Results of any environmental monitoring.
- Correspondence with regulatory authorities or any other party.
- Waste disposal.
- Environmental management performance reviews.
- SBMP updates.
- Site emergencies.
- Training.

12 Review and Improvement

12.1 Non-conformance & Corrective Actions

A non-conformance is defined as failure to comply with the requirements of this SBMP, regulatory requirements and conditions of approvals and permits. Non-conformances may be identified through monitoring, inspections, or incident investigations.

Non-conforming activities shall be stopped by any person at the site in consultation with the Site Manager. The activity shall not recommence until an appropriate corrective action has been implemented. A corrective action must be identified and implemented for each identified non-conformance.

Any breach of the conditions of the Environmental Authority must be reported by the Site Manager to the administering authority within 24 hours of becoming aware of the breach. Records of the breach must be kept and include details of the breach, notifications made to the administering authority and corrective actions taken.

12.2 Environmental Management Performance Reviews

Environmental management performance reviews shall be undertaken annually as part of the continual improvement process. Reviews may also occur in addition to the annual reviews in response to matters that affect environmental management (e.g., incidents, emergencies, changes in site conditions and operations, permit conditions or legislation changes, etc.).

The Site Manager and Site Supervisor shall undertake the annual environmental management review. The review shall consider:

- Monitoring, inspection, and audit results for the past year.
- Recent and relevant incidents and any lessons learnt.
- Management of complaints.
- Feedback from regulatory authorities.
- Tabling of any new legal or other obligations.
- The effectiveness of environmental controls.
- Adequacy of resources for environmental management.

Findings, actions, timeframes, and the responsible parties shall be recorded in accordance with Section 11.

12.3 SBMP Review and Update

The SBMP shall be reviewed at least annually by the Site Manager to determine if the management measures are appropriate for operations and site conditions. If the SBMP is not appropriate for the operations and site conditions at the time of the review it shall be updated accordingly.

Other triggers for review and update of the SBMP outside of the annual review cycle may include, but not be limited to:

- Following the issue of project approvals and permits.
- After an incident that causes environmental harm.
- Changes to the risk profile of the operation.
- Changes to relevant legislation or project approvals.

- Changes to operational methods or site conditions that require additional or alternative environmental controls to manage the risk on environmental values.

Appendices

Appendix A Monthly Inspection Checklist

Items Inspected	Management Actions Required? (Yes/No)
General Requirements	
Is the site in a clean and tidy state?	
Is all plant, equipment, and stormwater infrastructure maintained in accordance with the manufacturer's recommendations and the relevant standards?	
Ensure all grates, manhole covers and similar are secure to prevent rattling or vibrating.	
Is there any evidence of weed or pest outbreaks at the site?	
Air Quality and Noise Emissions	
Are all manufacturing activities being undertaken inside the facility?	
Are the trucks transporting feedstock materials and products to and from the site being covered to prevent spills or air blown emissions?	
Are the air emission control systems for the autoclave and gas fired boiler being maintained and serviced in accordance with the manufacturer's specifications?	
Waste	
Are all bins at the site covered, emptied regularly, located within the designated bin area, and clearly labelled?	
Is wastewater from manufacturing (including condensate from the air compressor) being captured, treated and disposed of to trade waste or reused?	
Dangerous Goods/Hazardous Substances	
Are the onsite spill kits stocked and replenished appropriately and in the correct location for use?	
Are appropriate fire extinguishers provided at the site?	
Are all hazardous substances SDS provided onsite? Are they all up to date?	
Does the wastewater AST have a float level indicator & high level audible & visual alarm when at or above 80% capacity.	

Appendix B Complaint Log

www.rangeenviro.com.au

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