
Pollution Incident Response Management Plan - PIRMP

Kooragang Industrial Water Scheme

Document #. ENV-KIWS-PIRMP.200

Review Date: 23/12/2021



Address: Mayfield West Advanced Water Treatment Plant

19 – 21 Channel Road, Mayfield West, NSW, 2304

EPL Licence No: 20757

Facilities on site:

- Advanced Water Treatment Plant
- Pipework to and from the Shortland Dechlorination Building
- Brine Pipeline to Burwood Beach Plant sewer collection network
- Product water line to Orica

Review and Document Control

VERSION	CHANGE	ISSUED	REVIEWED	AUTHORISED	DATE ISSUED
1	First draft by Lara Rossi	27 November 2017	Phil Priest	Phil Priest	27 November 2017
2	Review by MB (SUEZ)	17 December 2019	Megan Boardman	Nadeem Akram	17 December 2019
3	Review to confirm meets requirement of PIRMP Guidelines	1 June 2020	Paul Maier	Nadeem Akram	1 June 2020
4	Annual review post PIRMP Drill	18 August 2020	Paul Maier	Nadeem Akram	18 August 2020
5	Annual review post PIRMP Drill	25 August 2021	Megan Boardman	Dave Colley	25 August 2021
6	Review by MB (SUEZ) Removal of Kelly Gee	23 December 2021	Megan Boardman	Dave Colley	23 Dec. 21

This document is to be viewed in conjunction with Incident Management Plan (ER-KIWS-IMP-100).

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1 Introduction

SUEZ Water & Treatment Solutions culture is underpinned by a vision for a workplace free of injury and environmental incidents of “No Injuries”. The vision is supported by senior management’s commitment to a policy of protecting people and the environment as the highest priority of all business objectives, while ensuring customer expectations are met or exceeded.

The company is committed to managing its business in an environmentally sensitive and sustainable manner and to preventing pollution for the benefit of its employees, clients and the community. Environmental impacts are considered during the company’s decision-making process and at all stages of service delivery. We promote an attitude of environmental care with individual responsibility for the environment and pride in our environmental performance. All managers, employees and contractors are accountable for environmental protection and made aware of their environmental responsibilities and obligations to comply with the law and SUEZ’s environmental policy.

Compliance with environmental laws is seen a minimum requirement and, where possible, we continually improve our operations to minimise or eliminate adverse environmental effects.

As such, the operation of the Kooragang Industrial Water Scheme (KIWS) is performed in a manner that ensures our aims and policies are met. To support our endeavour, we have implemented, maintain and continuously improve a management system that is certified to ISO 14001 to identify, monitor and control environmental risks arising from the KIWS operation. The performance of the management system is regularly reviewed, and human, physical and financial resources are provided meet the aims and objectives of our policies.

2 Kooragang Industrial Water Scheme

The Advance Water Treatment Plant -AWTP is a 9 megalitre per day membrane filtration and reverse osmosis recycling plant commissioned in November 2014, owned by Water Utilities Australia, and operated by SUEZ under an operations and maintenance contract.



3 Purpose and definitions

The purpose of this plan is to provide effective procedures for dealing with a pollution incident at SUEZ sites located within NSW which hold NSW Environmental Protection Authority (EPA) licenses for one or more facilities/operations on site. The information and procedures contained within this document are in accordance with requirements as set out within the *Protection of the Environment Legislation Amendment Act 2011 No 63*.

This Plan is provided as part of each SUEZ site *Incident Management Plan (IMP)* in accordance with the procedures set out in the *Incident Management Procedure*.

Pollution Incident means an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise

Notification of pollution incidents: A pollution incident on a SUEZ site must be notified according to the notification procedure on page 6 of this document in the event that the incident:

- Causes material harm to the health or safety of human beings or the environment, that is not trivial, and/or
- Which results in monetary loss or damage costing an amount exceeding \$10,000 (cost to include clean-up/further pollution mitigation measures)

Not Trivial means:

- Harm to human health (Injury/Illness) as a result of a pollution incident which is of Significant in severity or above (as defined in the *Incident Reporting and Investigation Procedure*)
- Harm may in some instances not result in an injury classified as major but may still be considered notifiable. This decision is to be made by the Plant Manager or most senior worker on site at the time of the incident
- Harm to the environment which is of Significant severity or above (as defined in the *Incident Reporting and Investigation Procedure*)

4 Incident Management Process

The incident management process utilised at SUEZ sites takes place in four phases:

PHASE	ELEMENTS
Identification	An emergency is identified, and the alarm raised.
Response	Response actions take place in parallel rather than sequentially, minimising the impact of the emergency; these being: <ol style="list-style-type: none"> 1. The safety of personnel (isolation of incident area, evacuation, rescue, first aid). 2. Establishment of the Incident Management Structure. 3. Assessment/investigation of the incident. 4. Classification of the incident and notifications.
Stabilisation	Objectives and strategies are developed resulting in an action plan being implemented to combat the incident. Progress is continually re-assessed.
Recovery	Incident condition is eliminated and incident closed reporting, investigation, and notifications, debrief, lessons learnt.

The incident management phases and the actions in each phase are detailed in the IMP and are supported by Incident Response Procedures (IRPs) which have been developed for potential emergency situations

Incidents are classified based on assessment variables such as whether sufficient plant resources can manage the incident, or the extent of the impact of the incident (i.e. localised, site and off-site). The classification determines the notification and reporting requirements and the incident management structure formed. The roles and responsibilities of each incident management member is defined in the management system.

Incidents classified as major (an “emergency”) instigate SUEZ’s Crisis Management Plan which describes SUEZ Australia’s management of the incident externally (e.g. with stakeholders), within the company and at the plant. Depending on the incident, a Crisis Management Team may be set-up and roles assigned for incident management functions as described in the plan.

5 Notification Procedure for Pollution Incidents

When a pollution incident occurs on site

1. Immediately engage in harm minimisation measures / spill containment as per procedures documented in the site IMP
2. If the incident presents an immediate threat to human health or property contact emergency services on **000** immediately
3. Assess the level of actual or potential pollution and decide whether the incident is a ‘**notifiable**’ incident according to the definition .
4. If the incident is considered ‘**notifiable**’ the following agencies must be notified immediately in listed order:
 - a) For pollution incidents within normal working hours the worker nominated as ‘Notifying the Authorities’ as per the contact table of this document (or the most senior worker on site at the time of the incident) must make all notifications
 - b) For pollution incidents, which occur outside of normal working hours the most senior worker on site at the time of the incident must make all notifications

Environmental Regulatory Authority - NSW EPA	Contact:	131 555
Work Health and Safety Regulatory Authority - Safe Work NSW	Contact:	131 050
Local Council - Newcastle City Council	Contact:	02 4974 2000
Fire and Rescue - Mayfield West Fire Station	Contact:	1300 729 579
Public Health Local Unit Business Hours: 8:30 am – 5:00 pm After Hours (John Hunter Hospital): Ask for Public Health Officer on call	Contact:	(Ph) 02 4924 6477 (Fax) 02 4924 6048

Note: Record the following information:*

- a) *The time, date, nature duration and location of the incident*
- b) *The location of the place where pollution is occurring or is likely to occur*
- c) *The nature, the estimated quantity or volume and the concentration of any pollutants involved*
- d) *The circumstances in which the incident occurred (including the cause of the incident, if known)*
- e) *The action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution*

f) Water Utilities Australia, the owner and neighbours, are also notified:

6 Contact Details of Persons on site in the event of a pollution incident

Responsibility	Name	Position Title	24 Hours Contact Number
Activating the Plan	Dave Colley	Plant Manager	0400314577
	Richard John	Process Technician	0412717387
	Megan Boardman	Admin and Ops support	0450061644
Notifying the Authorities	Dave Colley	Plant Manager	0400314577

7 Hazards and Controls

The types of hazards which may occur on site include:

- Land or water contamination from hazardous chemicals stored on site
- Air contamination from smoke or fumes in the event of a fire
- Non-treated water release

Site specific hazards to human health or the environment identified on the site including the likelihood of their occurrence and the actions taken to eliminate or reduce those hazards are recorded on the site *Risk Register*. The site *Risk Register* contains information relating to the area or process to which the risk applies and the risk scenario. A risk rating/likelihood of the hazard occurring is available for all scenarios and the controls in place to minimise the likelihood of an incident occurring

8 Likely Pollution Incidents

The following list of events may increase the likelihood of a pollution incident occurring on site:

- Natural disaster – Earthquake/Storm/Flood/windstorm
- Chemical Spill
- Chemical storage tank failure
- Bunding structural failure
- Incompatible mixing of chemicals causing explosion, combustion, or release of Chlorine gas
- Fixed Plant Failure
- Failure of raw water, product water or brine pipes
- Release of treated or untreated water to environment

9 Pre-emptive Actions

Pre-emptive actions are actions taken to minimise or prevent any risk of harm to human health or the environment. The following are the pre-emptive actions taken on site:

- Site Inductions
- Site HSE Management Plan
- Site Environmental Monitoring Program
- Provision of training and competency assessment for SUEZ Safe Operating Procedures
- Provision and use of spill containment kits
- Where applicable all processes on site are undertaken in accordance with the relevant Australian Standard/s
- Planned and preventative maintenance
- Asset renewal programme
- Site inspections

10 Inventory of potential Pollutants on Site

Potential Pollutants on site can come in many forms. Chemical pollutants are a considerable risk dependent on the quantity held on site and the storage method used. Hazardous chemicals stored, used or handled on site are recorded on the site Chemical Register. Chemical Registers are kept on site in accordance with the *Hazardous Chemicals and Dangerous Goods Procedure*.

The following table includes all non-chemical potential pollutants identified for the site including the maximum quantity held on site and the storage method.

Potential Pollutant	Maximum quantity held on site	Storage type/Method of storage
Ammonia Aqueous	6,000 L	Vinylester/MEKP/E-glass 6,000L Bunded Tank
Sulphuric Acid	16,000 L	Glass 16m3 Bunded Tank
Citric Acid	2,000 L	Vinylester/MEKP/E-glass 2,000L Bunded Tank
Caustic Soda	14,000 L	Vinylester/MEKP/E-glass 14,000L Bunded Tank
Sodium Bisulphate	14,000 L	Vinylester/MEKP/E-glass 14,000L Bunded Tank & IBC's
Antiscalant GE Hypersperse MDC714	4,000 L	Vinylester/MEKP/E-glass 2,000L Bunded Tank + 2 x 1.0kl IBC
Diesel	73 L	Steel skinned 73L portable tank
Sodium Hypochlorite	30,000 L	Vinylester/MEKP/E-glass 30,000L Bunded Tank
RO Cleaning Product	4,000 L	Vinylester/MEKP/E-glass 2,000L Bunded Tank + 2 x 1.0kl IBC

Note: For further storage location information refer to the site plans.

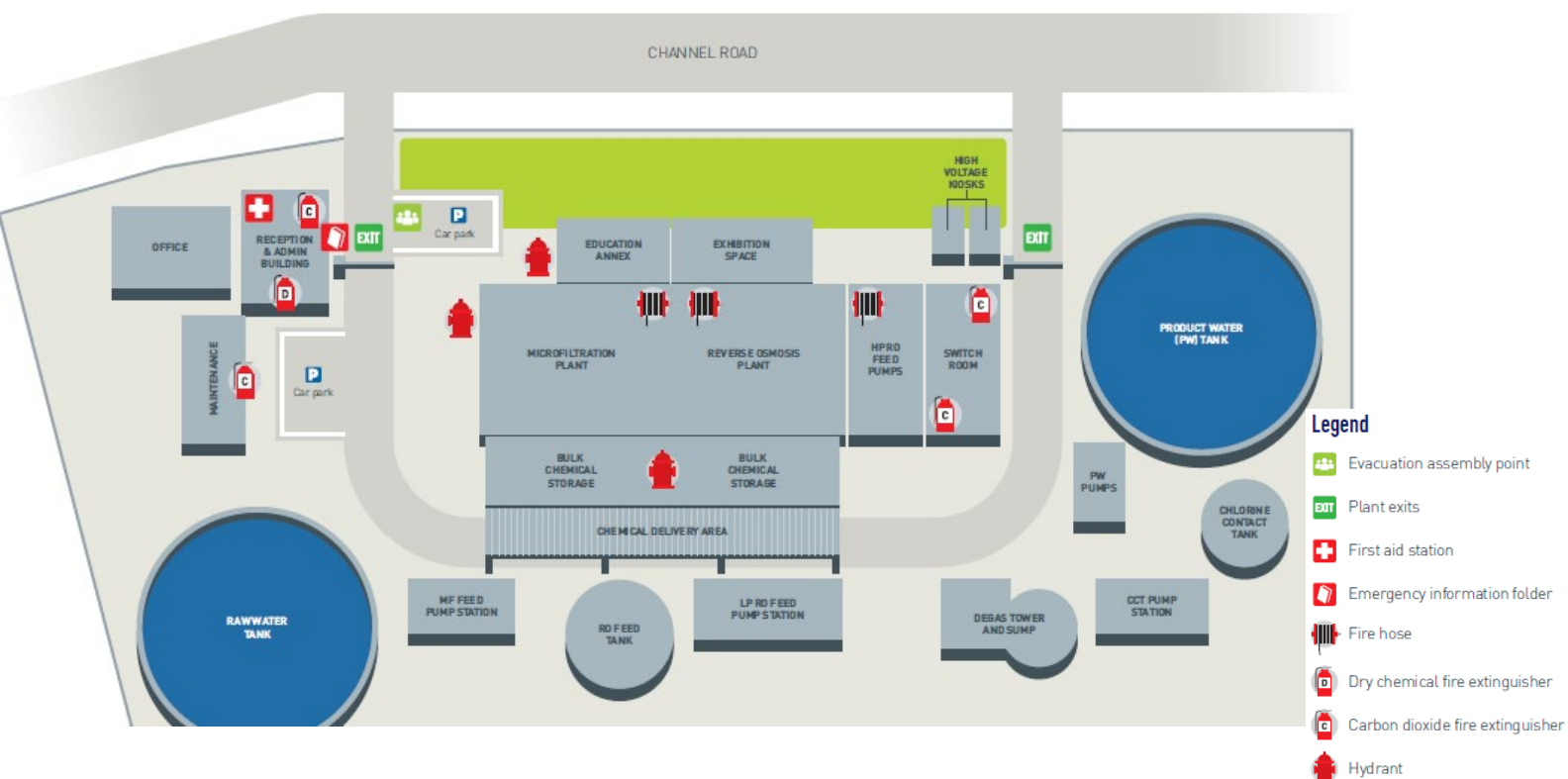
11 Safety Equipment on site

Safety equipment is any equipment located on site which can be used to minimise the risks of a pollution incident occurring or can be used to assist in containing / controlling a pollution incident.

Available on site as listed below:

Type of Safety Equipment	Description – what used for	Storage Location on site
Oil and Gas Spill Kit	Control Oil and Gas spills	- CCT Pump Station - HP Pump room
Chemical Spill Kits	Control Chemical spills	- Between Microfiltration Plant and Reverse Osmosis - Plant - Bulk Chemical Storage Area
Fire and heat detectors	Detection of Fire	- Electrical Switch Room - Control room - Education centre
Fire Extinguishing Equipment	Fire	- The Hydrant is keyed on the KIWS Site Layout Plan in the Emergency Information Container - Fire extinguishers are located throughout the site – Dry Powder and CO2 types (Indicated on the Evacuation sign and diagram).

Note: The Safety Data Sheet for all chemicals on site are kept alongside the chemical risk register in accordance with the *Hazardous Chemicals and Dangerous Goods Procedure*.



12 Harm Minimisations Measures on Site

Harm minimisation measures on site are actions or measures which are taken to minimise the harm to humans or the environment in the event of a pollution incident on site. The following is a list of the harm minimisation measures on site:

- Emergency Response Plans – including evacuation diagrams and emergency evacuation point locations.
- Emergency Response plan training and exercises as per the requirements of the *Incident Management Procedure*
- Trained and accredited First Aiders and Wardens
- Provision of fire-protection systems including firefighting equipment
- Availability of SUEZ personnel with environmental management knowledge for the purposes of assessing environment impact in the event of a pollution incident.
- Local medical facility contact
- Site warning alarm system – smoke detectors in administration building, office building, education annex and main switch room areas

13 Actions to be taken in the event of an emergency

Immediate actions are those actions which minimise or prevent harm to human health or the environment as a result of a pollution incident. The actions to be taken in the event of a pollution incident are as per the Response Procedures detailed in the site IMP relevant to the type of pollution incident which has occurred.

14 Actions for responding to Pollution caused by an incident

Following the initial response to a pollution incident occurring on site (as outlined in the site IMP), actions will be taken to combat any harm caused to the environment as a result of the incident. All Action taken will be in collaboration with the relevant authorities and where applicable SUEZ will engage qualified and experienced persons to assist in any required clean-up and mitigation activities.

It is the responsibility of the Plant Manager in consultation with the HSEQ team to ensure accurate and timely communication between all parties involved, including but not limited to:

- Relevant authorities,
- Neighbouring properties (150 metre radius)
- Any other persons affected by the incident and
- SUEZ management

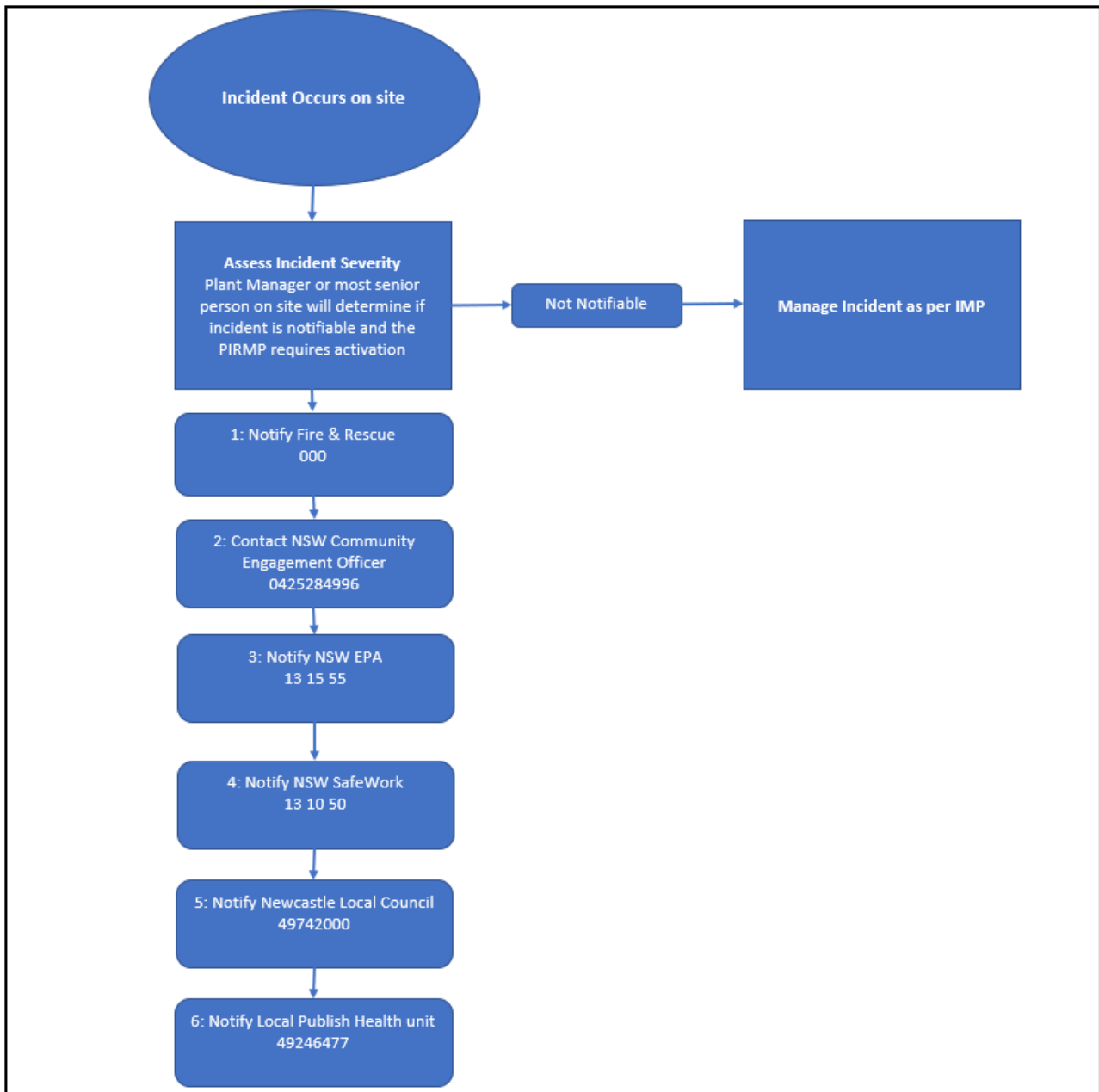
All pollution incidents must be investigated, and corrective actions completed with the aim to prevent further incidents from occurring in the future in line with the *Incident Reporting and Investigation Procedure*.

15 Flowchart for Notifiable Pollution Incident

The following flowchart illustrates the actions to be taken in the event of a 'notifiable' pollution incident occurring on a SUEZ site:

Staff Training

The relevant Suez workers for the site as recorded in the site IMP must be trained in accordance with the training requirements outlined in the site IMP. The objective of staff training is to ensure an understanding of the requirements for notification in the event of a pollution incident occurring on a SUEZ site, and the actions to take in the event of an emergency



Records of training must be kept as per the *Induction Procedure and Training Procedure*.

16 Emergency Exercises

Emergency exercises will be performed in accordance with the requirements of the site IMP (minimum one pollution incident emergency drill performed every 12 months)

17 Review of the Plan

The plan will be reviewed annually in accordance with the requirements as stated in the site IMP. Incidents and exercises occurring on site will be reviewed by the Plant Manager in accordance with the requirements of the *Incident Management Procedure*.

18 Site Map

Site Map is provided below.



19 Definitions

Emergency - Any event which arises internally, or from external sources, and which may adversely affect persons or the community generally and requires an immediate response.

Incident Management Plan (IMP) - The written documentation of the emergency arrangements for a facility, generally made during the planning process. It consists of the preparedness, prevention and response activities and includes the agreed emergency roles, responsibilities, strategies, systems and arrangements.

EPA - means the Environment Protection Authority constituted by the [Protection of the Environment Administration Act 1991](#) .

Evacuation - The orderly movement of people from a place of danger.

Material Harm –

Material harm is defined in section 147 of the POEO Act as:

(a) harm to the environment is material if:

- (i) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or
- (ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations), and

(b) loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.’

Notification is required even where ‘harm to the environment is caused only in the premises where the pollution incident occurs’, as specified in section 147(2).

Pollution means -

- a) Water pollution, or
- b) Air pollution, or
- c) Noise pollution, or
- d) Land pollution.

Pollution incident - means an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise.

20 Related documents

DOCUMENT NAME	REFERENCE NUMBER
Incident Management Plan	ER-KIWS-IMP-100
Emergency Simulation Checklist	IMP-250-A
Hazardous Chemicals and Dangerous Goods	OHS-015
Hazardous Chemicals / Dangerous Goods Risk Assessment	OHS-015A
Incident Reporting and Investigation Procedure	OHS-005
Protection of the Environment Legislation Amendment Act 2011 No 63.	
Site Plans	

21 Appendix: 01 – Surrounding businesses contact details

Surrounding Businesses contact details in case local community needs to be informed about a pollution incident that may potentially affect them.

Regular updates are to be provided to the SUEZ NSW Community liaison “Kristal DiLuccio” Ph No: +61 425 284 996 and Email kristal.dilucchio@suez.com

SURROUNDING BUSINESSES - KIWS PLANT (MAYFIELD WEST)			
BUSINESS	ADDRESS	PHONE	EMAIL
Roses Only	18 Channel Rd Mayfield West	40409751	
Instant Access	16 Channel Rd Mayfield West	46690555	newcastle@instantaccess.com.au
NCP Printing	14 Channel Rd Mayfield West	49261300	sales@ncp.com.au
Automated Innovation	1/12 Channel Rd Mayfield West	49676666	admin@automatedinnovation.com.au
decentralised water consulting	2/12 Channel Rd Mayfield West	400380041	enquiries@decentralisedwater.com.au
BSMS Security	3/12 Channel Rd Mayfield West	49601944	info@bsms.net.au
Trotec laser	4/12 Channel Rd Mayfield West	1300 TROTEC	info@troteclaser.com.au
Corefit Newcastle	4/12 Channel Rd Mayfield West	40887483	info@corefitnewcastle.com.au
G&S Engineering	5/12 Channel Rd Mayfield West		
Building Designers Association of Australia	6/12 Channel Rd Mayfield West		
Kitchens for Living	7/12 Channel Rd Mayfield West	49677720	mail@kfl.design
Ditchfield Contracting Pty Ltd	8/12 Channel Rd Mayfield West		
	1/13 Channel Rd Mayfield West		
	2/13 Channel Rd Mayfield West		
Newcastle Pump & Water	3/13 Channel Rd Mayfield West	1300089968	info@newpump.com.au
Agility Engineering	4/13 Channel Rd Mayfield West	49600878	admin@agilityeng.com.au
	5/13 Channel Rd Mayfield West		
Otis - A United Technologies Company	6/13 Channel Rd Mayfield West		
R N Baker Switchboards	7/13 Channel Rd Mayfield West	68840488	info@rnbaker.com.au
Optimum Electrical Solutions	8/13 Channel Rd Mayfield West	40405637	info@noes.com.au
IRS International	9/13 Channel Rd Mayfield West		
Shout Brewing	10/13 Channel Rd Mayfield West		
	11/13 Channel Rd Mayfield West		
Alinea	12/13 Channel Rd Mayfield West	49600734	
The Hunter Health Project	13/13 Channel Rd Mayfield West	412696428	info@thehunterhealthproject.com.au
	14/13 Channel Rd Mayfield West		
	15/13 Channel Rd Mayfield West		
Joint Sealing Solutions	16/13 Channel Rd Mayfield West	411365350	jssolutions@outlook.com.au
	17/13 Channel Rd Mayfield West		
Corlette Holdings	1 Pambalong Dr Mayfield West	411236999	tony@corletteholdings.com.au
Crashcorp	3 Pambalong Dr Mayfield West	49631549	
Steel line garage doors	5 Pambalong Dr Mayfield West	40643800	

Colourworks Australia	1 & 2 / 7 Pambalong Dr Mayfield West	49406000	sales@colourworks.com.au
	3/7 Pambalong Dr Mayfield West		
	4/7 Pambalong Dr Mayfield West		
Deckee Pty Ltd	5/7 Pambalong Dr Mayfield West		
	6/7 Pambalong Dr Mayfield West		
	7/7 Pambalong Dr Mayfield West		
	8/7 Pambalong Dr Mayfield West		
	9/7 Pambalong Dr Mayfield West		
	10/7 Pambalong Dr Mayfield West		
	11/7 Pambalong Dr Mayfield West		
JSSS Electrical	12/7 Pambalong Dr Mayfield West	432801546	jssselectrical@gmail.com
	13/7 Pambalong Dr Mayfield West		
	14/7 Pambalong Dr Mayfield West		
	15/7 Pambalong Dr Mayfield West		
Steel River Strength & Fitness	1/4 Pambalong Dr Mayfield West	422583721	hello@steelriverstrengthfitness.com.au
	2/4 Pambalong Dr Mayfield West		
	3/4 Pambalong Dr Mayfield West		
Jessica Cosmetics Australia	4/4 Pambalong Dr Mayfield West	1300470648	admin@jessicacosmetics.com.au
Pacific Maintenance	5/4 Pambalong Dr Mayfield West	40379222	kaleb@pacificmaintenancegroup.com.au
Macfab Metal Design	6/4 Pambalong Dr Mayfield West	49684559	
Steel River Vapour Blasting	7/4 Pambalong Dr Mayfield West	49674130	steelrivervapourblasting@gmail.com
	8/4 Pambalong Dr Mayfield West		
Airdri Clotheslines Newcastle	9/4 Pambalong Dr Mayfield West	49696537	airdrid@gmail.com

22 PRIMP Simulations IMP-250-A

Date	Scenario	Personnel Attended
05.09.2019	Chemical Spill Evacuation	Dave Colley, Megan Boardman, Richard John.
18.08.2020	Failure of Raw Water product overflow brine line	Dave Colley and Paul Maier

