



**POLLUTION INCIDENT RESPONSE
MANAGEMENT PLAN**

FOR

MUDGEES WASTE FACILITY

**ENVIRONMENT PROTECTION LICENCE
6348**

Uncontrolled when printed

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ensure this is the current version.**

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Version Control

Version No.	Date	Changes made by	Notes
1 to 7	Various from August 2012 to September 2019	Mid-Western Regional Council	Previous versions of PIRMP held in Council records.
2021-1.0 (Draft 1)	July 2021	JS Regulatory Services	Major restructuring of PIRMP document and development of response procedures for identified high risks.
2021-1.0 (Draft 2)	September 2021	JS Regulatory Services	Amendments after feedback from Council.
2021 – 1.0	December 2021	JS Regulatory Services	Amendments after feedback from Council.
1.1	April 2022	ATwin	Training and Feedback

1. Purpose

This Pollution Incident Response Management Plan (PIRMP) is a legislative requirement as set out in Part 5.7A of the *Protection of the Environment Operations Act 1997* (POEO Act) and clause 98C of the *Protection of the Environment Operations (General) Regulation 2009* (General Regulation). The purpose of the PIRMP is to:

- minimise the risk of a pollution incident occurring,
- establish clear and effective notification, action, and communication procedures to ensure the right people are notified, warned, and quickly provided with updates and information they may need to act appropriately, including people who may need to be involved in incident responses, and
- have properly trained staff and up-to-date incident management information available to ensure the potential impact of a pollution incident is minimised.

This PIRMP:

- applies to the Mudgee Waste Facility (the premises),
- is a functional document that will be updated from time to time,
- will be tested at least once every 12 months (and within one month of a pollution incident),
- has been prepared to comply with the requirements of the POEO Act and the General Regulation, and
- has been structured to maximise the assistance to Council personnel to quickly identify, assess, respond, and report incidents that do (or may) result in pollution.

2. Distribution

The distribution of this document is controlled to ensure that the correct and most current version is being used to respond to pollution incidents. The current version will always be the electronic version held on Mid-Western Regional Council servers. Details of the version and date of issue are recorded on the footer of each page of the PIRMP and in the version control table on the previous page.

Printed versions may also be used at the premises and by staff with responsibilities in responding to incidents. It is critical to note that all paper copies of this PIRMP are uncontrolled and that it is the responsibility of users of paper copies of this PIRMP to ensure that it is the current version.

When a new version of this PIRMP is created, the old version will be replaced in its entirety. Managers and supervisors will be responsible for informing staff under their supervision that there is a revised version of the PIRMP and to destroy any paper and digital copies of the previous version.

A copy of this PIRMP (electronic or paper) must be kept at the premises and be made available on request by an authorised EPA officer and to any person who is responsible for implementing this plan.

IMPORTANT!

Trigger for implementation of PIRMP

This plan is to be implemented when there is (or likely to be) a leak, spill or other escape of a substance that has, will or likely to result in pollution¹ that causes (or is likely to cause):

- harm to the health or safety of human beings or to ecosystems that is significant, or
- actual or potential loss or property damage (including the costs to stop, contain and clean-up any pollution) exceeds \$10,000.²

It does not matter that the harm (or risk of harm) exists only within the site of the waste management facility.

Examples of when the plan must be implemented:

- When a leak or spill of leachate occurs that has, or is likely to reach, a gutter, drain or waterway, or
- When members of the public have been or are likely to be exposed fumes from waste delivered to the facility, or
- When two (2) or more NSW Fire and Rescue trucks respond to an incident, or
- When an incident will require the removal of spilled leachate or other wastes for disposal at another site.

If there is any doubt over whether this plan should be implemented,
implement the plan.

¹ From the Dictionary of the *Protection of the Environment Operations Act 1997*, a ***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.

² From section 147 of the *Protection of the Environment Operations Act 1997* ***material harm to the environment***:

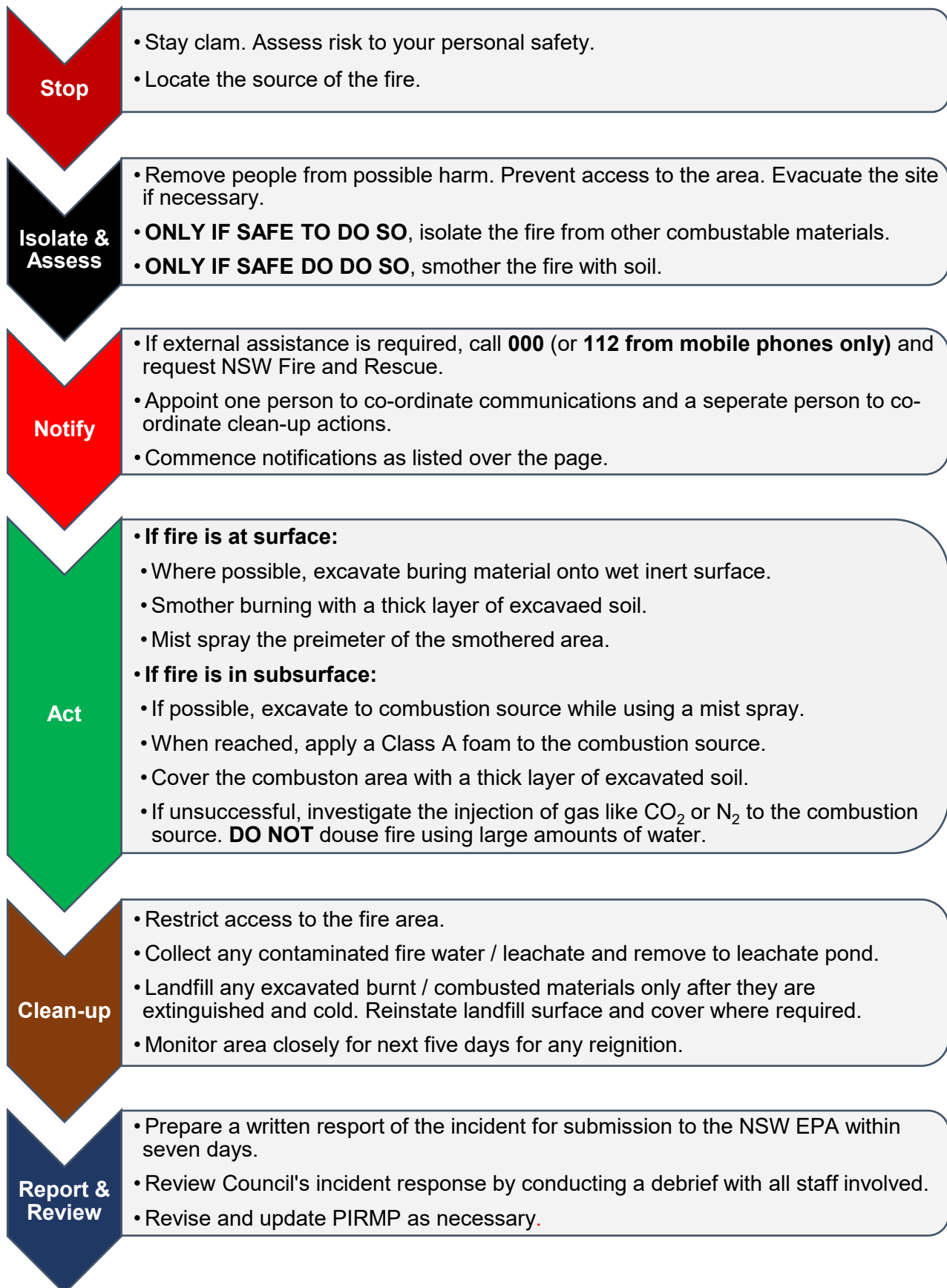
- (i) involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or
- (ii) results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations),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

It does not matter that harm to the environment is caused only in the premises where the pollution incident occurs.

3. Incident Response Procedures

1. Landfill fire
2. Leak / Spill from CRC
3. Contamination of stormwater by leachate
 4. Identification of hazardous waste
5. Miscellaneous notifiable incident response

Landfill fire - Response



Landfill fire - Notifications

An effective response to any incident depends on providing early, clear, and accurate information of the situation to the relevant people and authorities. Pause, collect your thoughts, and provide the following information clearly:

- a) your name,
- b) your contact mobile number,
- c) the time, date, and location of the incident,
- d) the type of incident,
- e) details of any casualties,
- f) the estimated quantity or volume and the concentration of any pollutants involved, if known,
- g) the cause of the incident, if known, and
- h) the action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known.

Notification is required by the person appointed to co-ordinate communications for the incident. This must occur immediately after a pollution incident becomes known. Any information required that is not known at the time the incident is notified must be provided when it becomes known.

The Pollution Incident Reporting Form in Appendix A has been designed to assist person co-ordinating communications to recording the notifications made.

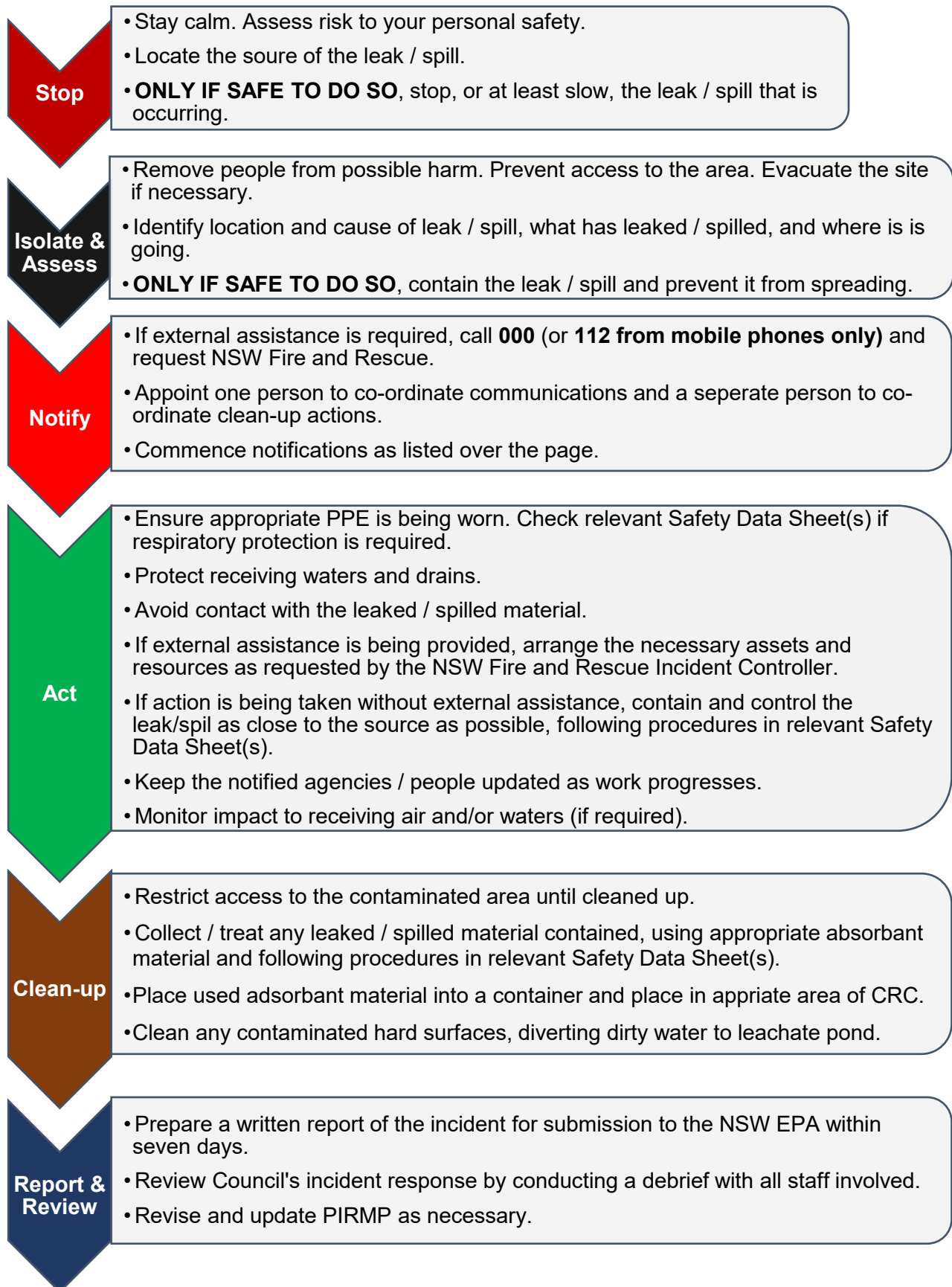
Highlighted contacts in following tables MUST be notified

MWRC Contacts	Phone Number
Waste Coordinator	02 6378 2850
Manager Waste and Environmental Services	02 6378 2850
<i>If unable to contact above</i> Waste and Recycling Technical Officer	02 6378 2850
Emergency Warden	02 6378 2850
<i>For Notifiable Safework incidents. Inform them to report to Safework</i> WHS Coordinator	02 6378 2850
<i>If unable to contact WHS Coordinator</i> Executive Manager Human Resources	02 6378 2850
<i>For incident affecting services to the public or contractors</i> Corporate Communications	02 6378 2850
Dog Pound	02 6378 2850
Sewage Treatment Plant	02 6378 2850
Roads After Hours <i>(assistance with earthmoving)</i>	02 6378 2850

Statutory Notifications	Phone Number
Environment Protection Authority	131 555
NSW Health <i>(business hours)</i>	02 6809 7963
NSW Health <i>(after hours – as for the Public Health Officer on call)</i>	02 6885 8666 or 0418 866 397
SafeWork NSW <i>(unless already notified by WHS Coordinator)</i>	13 10 50
Fire & Rescue NSW <i>(unless already notified as part of the procedure)</i>	1300 729 579
Cudgegong RFS	02 6372 4434

Stakeholder notifications	Phone Number
WaterNSW <i>(if waters are impacted)</i>	1800 061 069
<u>Immediate neighbours:</u> Sewage Treatment Plant Dog Pound Resident 205 Hill End Road	By phone By phone Door knock
Broader neighbours <i>(if required)</i>	Notification on Council website and Facebook page.
Broader community <i>(if areas regularly accessed by the public and/or waters impacted)</i>	Media release and local radio announcement.

Leak / Spill from CRC - Response



Leak / Spill from CRC - Notifications

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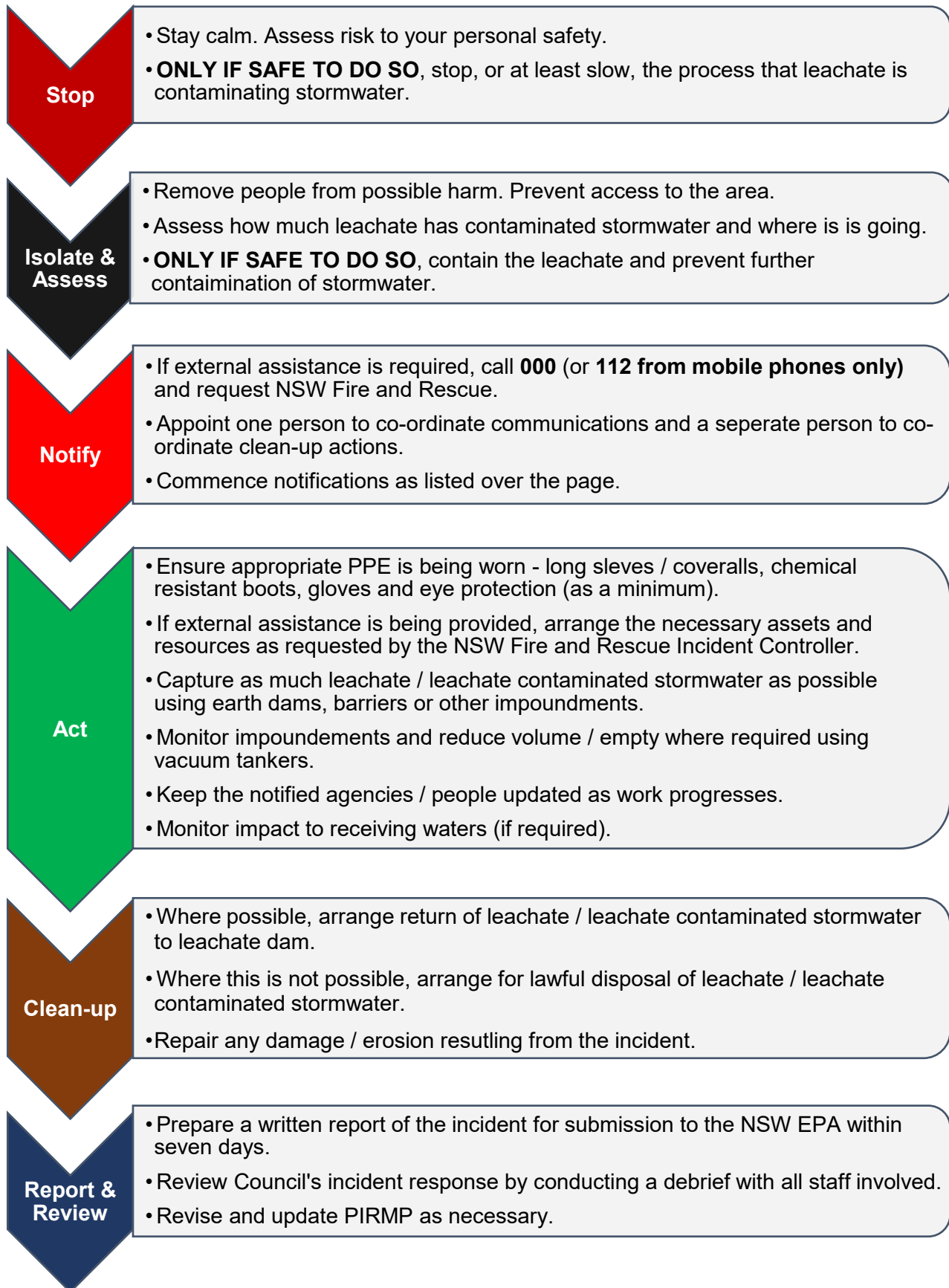
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Contamination of stormwater by leachate - Response



Contamination of stormwater by leachate - Notifications

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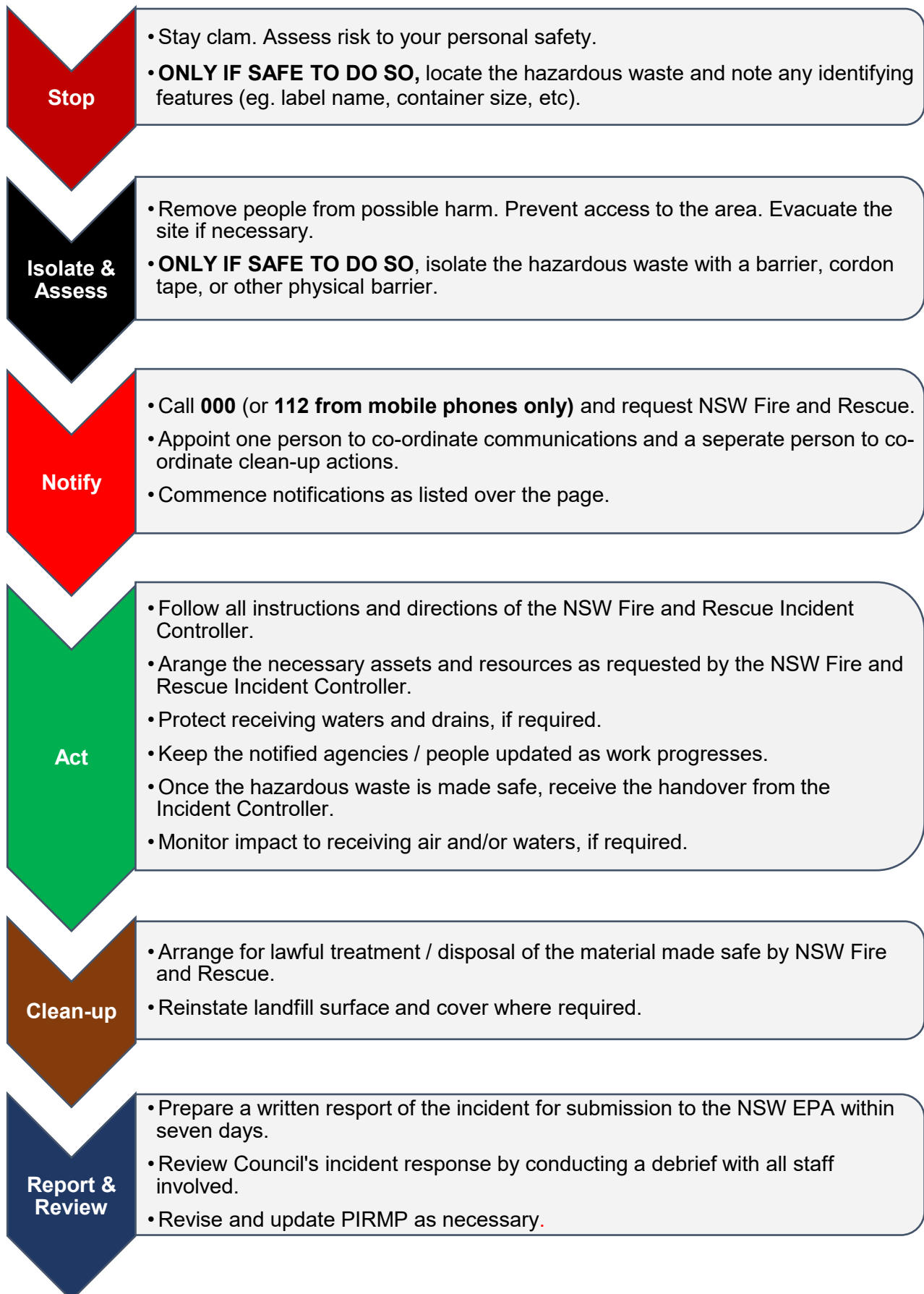
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Identification of hazardous wastes - Response



Identification of hazardous wastes - Notifications

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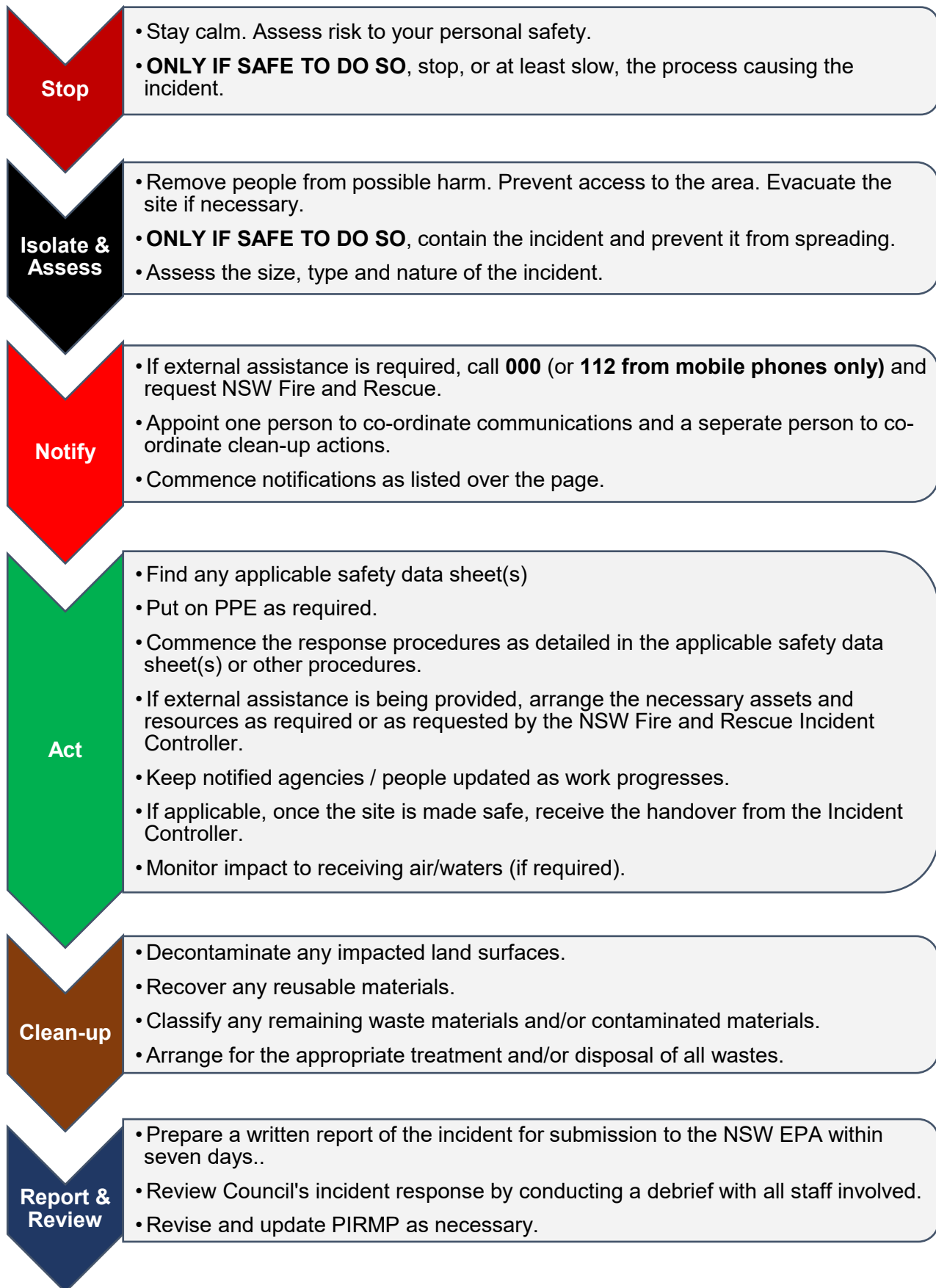
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Miscellaneous notifiable incident - Response



Miscellaneous notifiable incident - Notifications

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4. Maps of premises

Figure 1 - Recent satellite imagery of the Mudgee Waste facility



Figure 2 – Stormwater drainage of the Mudgee Waste Facility



5. Risk assessment and mitigation

5.1. Assessment methodology

A process of assessing potential pollution incident risks, consistent with the principles of ISO 31000 for risk assessment methodology and HB 203-2012 for managing environmental risk, has been used to identify and assess potential risks for the premises.

Information was collected from the management and staff of the premises regarding the likelihood of potential incidents occurring based on previous experience. These responses were then averaged across the group to create an overall likelihood for the particular incident. Descriptions of the likelihood terms used are presented in Table 1.

Table 1 – Likelihood descriptors

Highly likely	More than once a month.
Likely	Around once a quarter.
Possible	Around once a year
Unlikely	Once every few years
Highly unlikely	Less than once every 5 years.

An assessment of the estimated impacts from a potential pollution incident was then undertaken based on the concentration, nature and volume of potential pollutants released, and the nature, use and sensitivity of the receiving environment (including potential human health impacts). Descriptions of the impact terms used are presented in Table 2.

Table 2 – Impact descriptors

Insignificant	Nuisance only. Negligible clean-up costs.
Minor	Short term detrimental effect. Clean-up able to be undertaken within existing budgets.
Moderate	Medium term detrimental effects. Clean-up requires specific budget approval.
Major	Long term impacts. Clean-up causes significant impact to allocated budgets.
Critical	Extensive, long term impacts. Clean up unable to be funded without external assistance.

The combination of the likelihood and the impact of the potential pollution incident was then assessed, using the matrix presented in Figure 10 below, and a risk rating applied.

Figure 4 – Risk assessment matrix

	<i>Impact</i>				
<i>Likelihood</i>	Insignificant	Minor	Moderate	Major	Critical
Highly likely	High	High	Extreme	Extreme	Extreme
Likely	Medium	High	High	Extreme	Extreme
Possible	Low	Medium	High	Extreme	Extreme
Unlikely	Low	Low	Medium	High	Extreme
Very unlikely	Low	Low	Medium	High	High

5.2. General risk control measures

Council employs a range of risk control measures that operate across the entire premises (including the reticulation system):

- Security of premises – The Mudgee Waste Facility are secured and locked when not attended. CCTV also operates within the Mudgee Waste Facility.
- Community reporting – Council has a single 24-hour phone service where members of the community can report pollution incidents.
- Staff training – All staff working at the premises are required to:
 - Complete Council’s general induction
 - Complete a site-specific induction for the premises.
 - Maintain relevant competencies and licences.
 - Informed and trained in the use of this PIRMP.
- Council staff and contractors working on the premises being aware of evacuation procedures, use of fire extinguishers and the location of the Emergency Assembly Point.
- Regular inspections, audits, testing and reviews - Equipment, controls, documents, and systems are regularly audited by Council, NSW government agencies and Council’s insurers. All required corrective actions are recorded and appropriate corrective actions undertaken.
- Regular management and staff toolbox meetings – to update management and staff on issues requiring correction and prioritising this work according to risk.
- Reporting systems – Council has a system where hazards (including environmental hazards) and near misses are reported, investigated and, where required, action taken to rectify hazards.
- Emergency equipment – Including, but not limited to spill kits, fire extinguishers, appropriate Personal Protective Equipment (PPE), and emergency signage.
- Monitoring – Regular monitoring for a range of parameters is undertaken of various locations within the Mudgee Waste Facility.

5.3. Identified pollution risks

In the following sections, the rationale for the allocation of the occurrence and impact levels for each potential pollution incident, along with specific risk control measures (in addition to the general control measures described above). Risks have been ordered from highest risk to lowest risk.

5.3.1. Landfill fire

<i>Occurrence</i>	<i>Impact</i>	<i>Risk</i>
Possible	Major	Extreme

Rationale

There are several management controls in place to minimise the risk of a landfill fire occurring at the site. However, these controls do not eliminate the possibility of an ignition source being introduced to the landfill. In addition, there is always a possibility of a spontaneous combustion reaction occurring within the landfill where the internal conditions of the landfill are favourable to this occurring.

A landfill fire is reported to occur only once every few years, but the likely consequences of such a fire is major when considering impacts to local air quality, the potential subsurface spread of surface fires and the operational disruptions caused.

Specific control measures

- Signage and education on acceptable wastes and reducing fire risk.
- No smoking on site.
- Waste screening at the gatehouse.
- Supervision at waste disposal areas.
- Fire extinguishing infrastructure on site.
- Stockpile of soil for extinguishing fires available at active tipping face.

5.3.2. Leak / Spill from CRC

<i>Occurrence</i>	<i>Impact</i>	<i>Risk</i>
Likely	Minor	High

Rationale

The Community Recycling Centre at the site receives a range of problem and hazardous wastes from household sources. This includes items like gas bottles, fire extinguishers, waste motor oil, aerosols, paint (water and oil based), cooking oils, fluorescent globes and tubes, smoke detectors and batteries (car and domestic). These items are unloaded by members of the community and spillages can occur.

The volumes of these spills are generally small, but the material involved can be potentially very damaging if released into the environment.

Specific control measures

- Waste screening at the gatehouse.
- Purpose built CRC facility with multiple layers of leak / spill protection.
- Dedicated spill capture and clean-up equipment at CRC.

5.3.3. Contamination of stormwater by leachate

<i>Occurrence</i>	<i>Impact</i>	<i>Risk</i>
Unlikely	Major	High

Rationale

Currently, the management of leachate is constrained by the current capacity of the leachate storage pond and the ability to dispose of leachate.

There has been increased difficulty recently in disposing of leachate to the nearby sewage treatment plant due to increase regulatory requirements imposed around the acceptance of leachate. Alternative management of the leachate has been employed including evaporation and irrigation on site.

The most likely cause of contamination of leachate by stormwater by leachate is back to back significant rainfall events resulting in leachate generation exceeding the capacity of the leachate dam. In this situation, it is likely that leachate would be significantly diluted. However, the discharge of even significantly diluted leachate could be interpreted as a pollution incident.

Specific control measures

- Close management of stormwater and leachate flows.
- Regular inspection and maintenance of leachate and stormwater systems.
- Minimisation of exposed waste surfaces.
- Monitoring of leachate dam volume.
- Monitoring of stormwater and leachate quality.
- Weather forecast monitoring.
- Plans to increase leachate storage capacity.

5.3.4. Identification of hazardous waste

<i>Occurrence</i>	<i>Impact</i>	<i>Risk</i>
Unlikely	Major	High

Rationale

Regardless of efforts to educate customers and screen incoming wastes, there is the potential that hazardous wastes could be delivered to the landfill. This could be done inadvertently by people unaware of the risks of the wastes they are disposing, or maliciously by people looking to avoid the costs of disposing of hazardous wastes.

Hazardous wastes pose a significant risk to staff and customers at the site, resulting in potential exposure to toxic, infectious and/or asphyxiating substances along with the chance of violent reactions with water and other waste materials. The free CRC on site accepts some hazardous wastes (e.g. oil based paint, LP gas bottles, etc), but this does not represent the full range of potentially hazardous wastes generated by the community.

Specific control measures

- Signage and education on acceptable wastes.
- CRC operating on site receiving problem and hazardous wastes for free.
- Waste screening at the gatehouse.
- Supervision at waste disposal areas.
- Training of staff in response procedures

5.3.5. Loss of power

<i>Occurrence</i>	<i>Impact</i>	<i>Risk</i>
Possible	Minor	Medium

Rationale

This hazard is generally outside Council's control as it relates to a failure of the electricity supply system due to lack of supply or damage to electricity transmission infrastructure. Typically, electricity supply interruptions are short duration, however, supply interruptions due to natural disasters (bushfires, severe storms, floods, etc) can last significantly longer. Council does have contingency plans in place to deal with electricity supply interruptions.

Specific control measures

- Capability to connect to an external power supply.
- Landfilling operations are not dependant on electricity supply.
- Mobile generators / pumps can be employed if required.
- Uninterrupted Power Supply (EPS) for weighbridge and associated computer equipment.

5.3.6. Explosion/fire caused by methane

<i>Occurrence</i>	<i>Impact</i>	<i>Risk</i>
Very unlikely	Moderate	Medium

Rationale

Council regularly monitors for accumulated methane in building at the site. No potentially explosive concentrations of methane have been detected by this monitoring. Methane is generated by the decomposition of landfilled waste, so there is always the potential for methane to accumulate and pose a hazard.

Specific control measures

- Regular monitoring for accumulated methane in buildings.
- Building ventilation

5.3.7. Explosion / fire from other causes

<i>Occurrence</i>	<i>Impact</i>	<i>Risk</i>
Very unlikely	Moderate	Medium

Rationale

The hazard posed from fire from other causes is no more significant when compared to other similar sites. All structures at the site have been constructed to comply with applicable building codes, which includes fire control equipment. Infrastructure to extinguish fires is located throughout the site. Combustible materials are stored in a manner to minimise the risk of ignition and spread of fires.

Specific control measures

- Specific fire control infrastructure.
- Management of combustible materials to minimise risk of ignition.
- Management of combustibles to minimise the risk of fire spread.
- Flammable / combustible liquids securely and appropriately stored.

5.3.8. Vandalism / malicious damage

<i>Occurrence</i>	<i>Impact</i>	<i>Risk</i>
Possible	Minor	Medium

Rationale

The site is relatively remote from populated areas and is susceptible to break-in, theft, and vandalism. Typically, such activity is limited to the theft of valuable items stored at the site, but there is the chance that essential infrastructure could be vandalised.

Specific control measures

- CCTV is in operation at the site.
- Alarms are in operation at the site.

5.3.9. Emission of offensive odours

<i>Occurrence</i>	<i>Impact</i>	<i>Risk</i>
Highly unlikely	Minor	Low

Rationale

The decomposition of organic wastes produces odours. The nature, strength and duration of these odours is dependant upon the type of waste, prevailing wind speed and direction, other climatic conditions, and distance to “sensitive receptors”. Currently, the closest sensitive receptors are approximately 950 metres to the east.

In May to October, the wind is predominantly from the West. In October to May, the wind is predominantly from the east. The currently topography also assists to break up any potential odour plumes that may leave the site.

Specific control measures

- Significant buffer zone between landfill site and sensitive receptors.
- Regular covering of landfilled waste.
- Weather monitoring on site to inform operations.

5.3.10. Fuel spill from refuelling operations

<i>Occurrence</i>	<i>Impact</i>	<i>Risk</i>
Highly unlikely	Minor	Low

Rationale

Only a small amount (200 litres of diesel) of bulk fuel storage occurs on the site, which is contained on a sealed hardstand area. Heavy plant is typically refuelled by fuel delivered to the site.

Heavy plant uses diesel fuel, which has a lower flash point and reduced risk of unintentional ignition. Refuelling typically occurs on the landfill surface.

Specific control measures

- Operators trained in refuelling procedures.
- Refuelling typically occurring on landfill surface.

5.3.11. Flooding of landfill

<i>Occurrence</i>	<i>Impact</i>	<i>Risk</i>
Very unlikely	Minor	Low

Rationale

The site is above the 1:100 year flood level. Any flood that inundates the site would result in significant inundation to Mudgee itself, which would be the primary focus of any emergency response.

Specific control measures

No further measures employed.

6. Pollutant inventory

Table 3 - Bulk potential pollutants on the premises (>500 kg/L)

Potential Pollutant	Quantity (max)	DG Group	Packing group
Mixed solid wastes	Licensed to receive up to 100,000 tonnes per year	None	None
Leachate	19,000,000 litres	None	None
Hydragyp (flocculation agent)	2,000 litres	None	None
Waste cooking oil	2,000 litres	None	None
Waste car batteries	2,000 kilograms	8	-
Waste motor oil	1,500 litres	None	None

Table 4 - Potential pollutants on the premises in quantities of between 50 kg/L & 500 kg/L

Potential Pollutant	Quantity (max)	DG Group	Packing group
Truck wash (Green Power)	205 litres	None	None
Petroleum fuel	90 litres	3	II
Diesel	285 litres	None	None
Coolant	50 litres	None	None
Smoke detectors	50 kilograms	None	None
LP gas bottles	500 kilograms	2.1	-
Fire extinguishers	500 kilograms	2	-
Waste aerosols	50 kilograms	2.1	-
Waste water based paint	500 kilograms	None	None
Waste oil based paint	500 kilograms	3	III
Waste fluorescent tubes and globes	50 kilograms	None	None
Waste household batteries	50 kilograms	None	None

Table 5 – Other chemicals that may be on the premises in quantities of less than 50 kg/L

Chemical	DG Group	Packaging group
Earthtec algaecide	8	III
Kamba M (pesticide)	None	None
Rat bait	None	None
Bar oil	None	None
2 stroke oil	None	None
Waste printer cartridges	None	None
Degreaser	None	None
Grease	None	None
WD40	2.1	-
Line marking paint	2.1	-
Various household cleaners	None	None
Various household insecticides	2	-

7. Testing of PIRMP and staff training

7.1. Testing of PIRMP

It is a legislative requirement that this PIRMP be tested:

- At least once every 12 months and
- Within one month of any pollution incident occurring

The annual test will be undertaken by a simulated desktop pollution incident response exercise. An “incident” will be selected, and the relevant staff will be required to respond to this incident as per the PIRMP. Any issues or deficiencies identified during this simulated incident will be considered in the review and update of the PIRMP.

The test required within one month of the pollution incident occurring will be undertaken by a debrief with all staff involved in the incident and revisiting the actions required by the PIRMP and the actions taken. The adequacy of the response and any issues identified with the response and/or the PIRMP will be considered in the review and update of the PIRMP.

A PIRMP testing record is contained in Appendix B. Every test of the PIRMP will be recorded in this Appendix, along with the name of the person undertaking the test and accompanying notes (issues identified, and amendments made, etc.)

7.2. Staff training

Training in relation to the PIRMP will have three forms:

- for new members of staff at the premises, the specific induction for the premises will include details of the PIRMP,
- refresher training undertaken as part of the annual testing of PIRMP, and
- as deemed necessary, particularly after an incident that required implementation of the PIRMP.

Records of any training undertaken by staff will be kept with Council’s records.

The objectives of any training undertaken in relation to the PIRMP will be to enable the participants to:

- Explain the purpose of the PIRMP,
- Demonstrate an understanding of when the PIRMP must be implemented,
- Outline the responsibilities of various personnel in relation to the implementation of the PIRMP,
- Apply the incident response procedures contained in the PIRMP, and
- Take part in the assessment of a response to pollution incidents.

Appendix A – Pollution incident reporting form



Pollution Incident Reporting Form

Incident No:		Time:	
Date:		Duration of Incident:	

Nature of Incident:
.....
.....
.....

Temperature (°C)		Humidity (%)	
Wind Direction		Wind Speed (km/h)	
Rainfall since 9am (mm)		Fire Danger Rating	

The location of the place where the pollution incident is occurring or likely to occur:
.....
.....
.....

The nature, estimated quantity / volume and concentration of any pollutants involved (if known):
.....
.....
.....

The circumstances in which the incident occurred, including the cause of the incident (if known):
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.....
.....
.....

The corrective action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution (if known):
.....
.....
.....
.....

