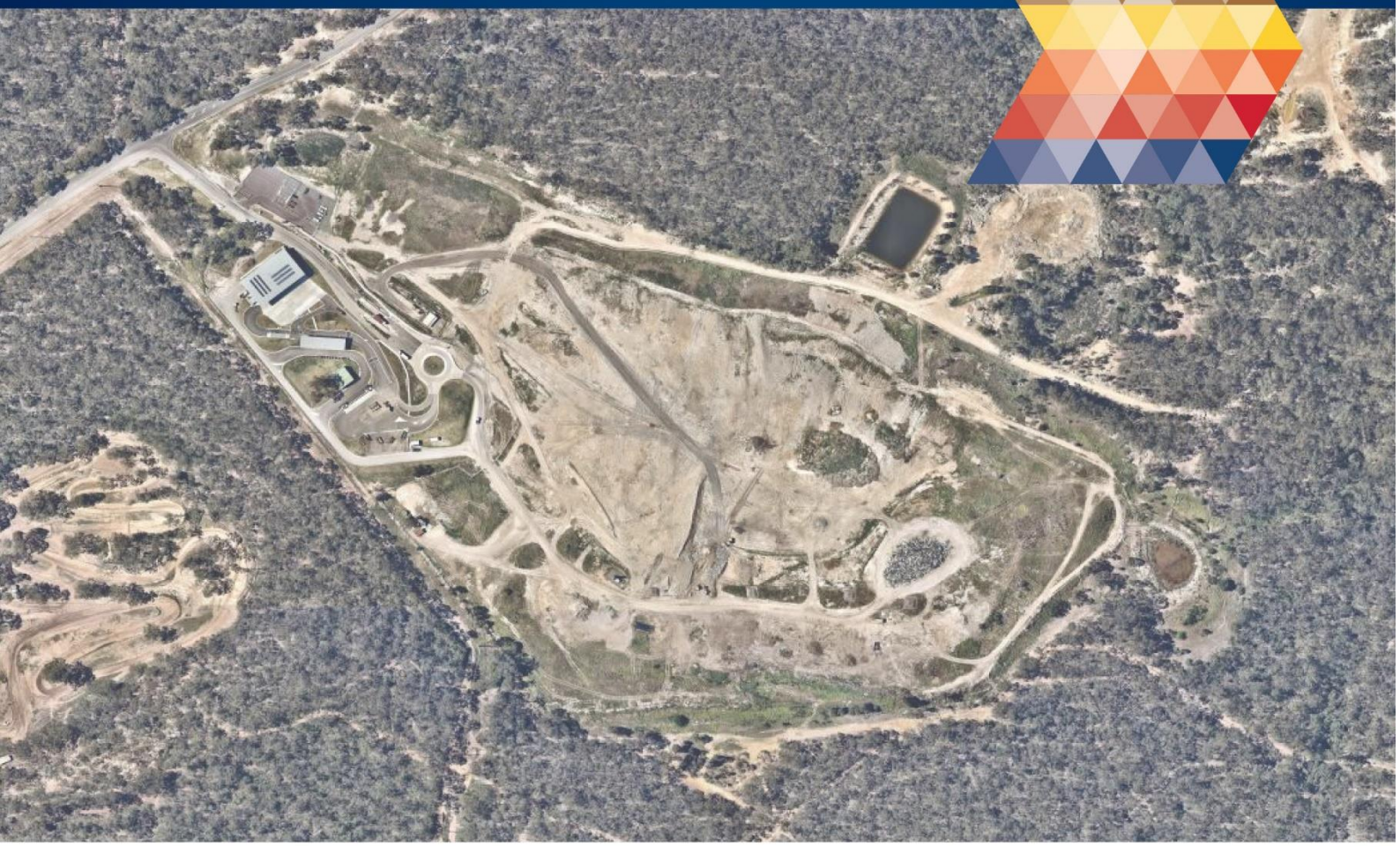
POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN

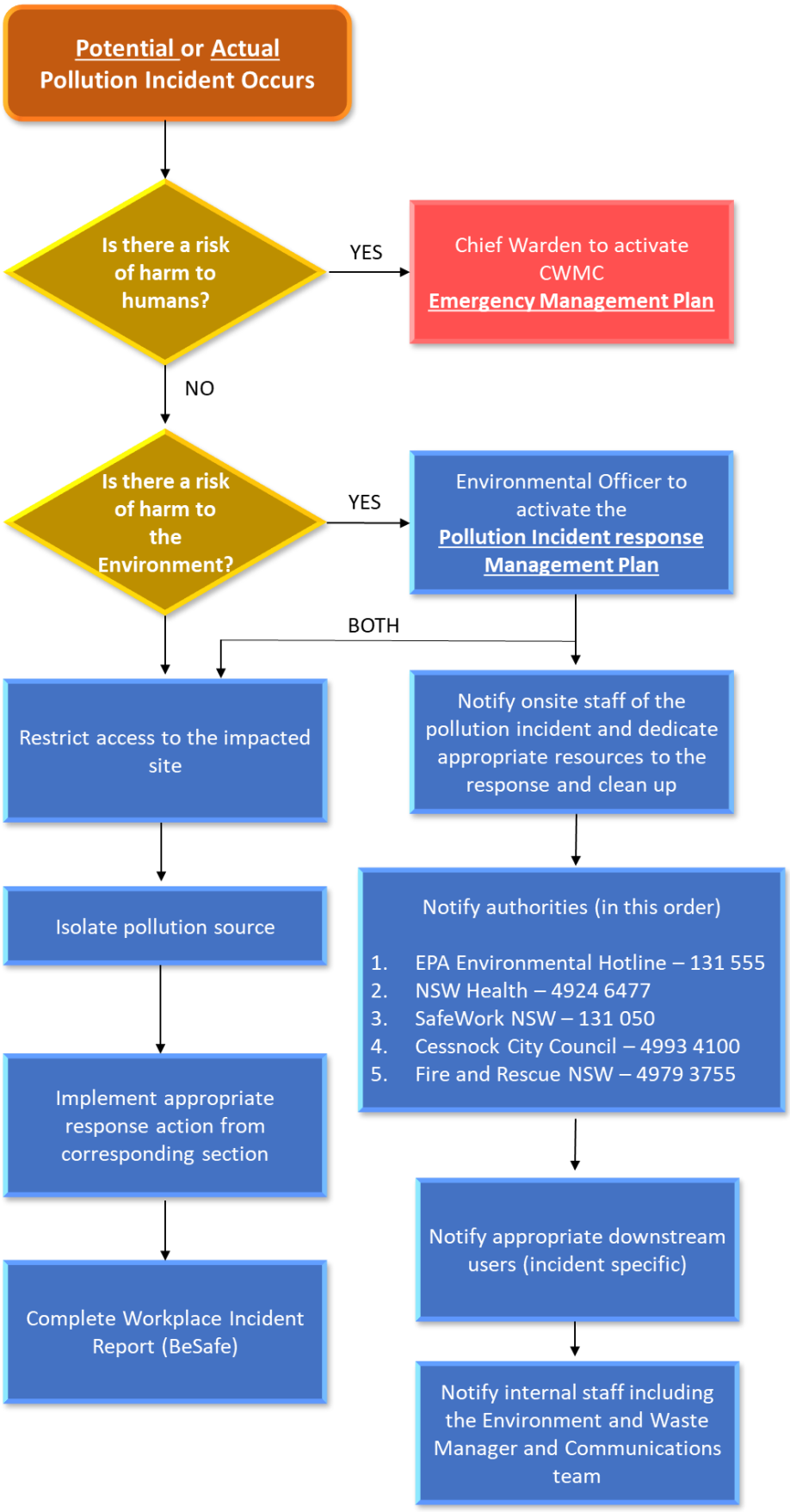


CESSNOCK WASTE MANAGEMENT CENTRE
Environment Protection Licence 6121

June 2025

Copies of this plan can be obtained from Council's website www.cessnock.nsw.gov.au

Pollution Incident Response Flow Chart



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Revision History

Version	Date	By	Details
1	December 2014	WY	Prepared to meet requirements of POEO Act
2	November 2016	ML	Review
3	January 2019	ML	Review – Updated to include changes to staff responsibility and the inclusion of the waste transfer station and Community Recycling Centre (CRC).
4	May 2020	KS/ML	Review – Updated to include an additional section detailing actions to undertake for each potential incident. Revision of testing, review and training section.
5	October 2021	KS	Updated to include new arrangements for leachate management
6	July 2022	TB	Tested and updated following environmental incident resulting from natural disaster.
7	September 2023	JA	Testing and Annual review
8	June 2024	JA	Incident Review and document update
9	January/ February 2025	JA	Update following Incident
10	March/April 2025	JA/BS	Update following Incident
11	June 2025	JA/BS	Update following Incident

Testing History

Date	By	Details
November 2016	ML	Drill with MO, GH and RMc
November 2017	MO	Incident review
May 2018	MO	Incident review
January 2019	ML	Desktop review
September 2019	ML/MO	Incident review
March 2020	ML	Desktop review
July 2021	MR/MS	Desktop review
July 2022	TB	Desktop review
September 2023	JA	Desktop review
April 2024	JA	Incident review and document update
February 2025	JA/BS	Incident review and document update – Hot Load
April 2025	JA/BS	Incident review and document update – Leachate Discharge
June 2025	JA/TB/BS	Incident review and document update – Weather event

1. INTRODUCTION

1.1 Purpose

This Pollution Incident Response Management Plan (PIRMP) has been developed to outline Cessnock City Council's (CCC) pre-emptive controls and responses to a pollution incident at the Cessnock Waste Management Centre (CWMC). The document has been developed to meet the requirements of section 153A of the Protection of the Environment Operations Act 1997 (POEO Act) and Protection of the Environment Operations (General) Regulation 2022 (the General Regulation). The live document is kept onsite and tested annually as per Part 5.7A of the POEO Act.

The purpose of the PIRMP is to provide a process for the management of pollution incidents and facilitate a coordinated response by ensuring timely communication to staff, the Environmental Protection Authority (EPA) and other relevant agencies.

This document has been implemented and is tested, reviewed and updated to meet the requirements of the legislation and guidelines issued by the EPA.

1.2 Scope

This PIRMP has been developed to cover pollution incident responses for activities associated with Environmental Protection Licence (EPL) 6121. This licence covers the operation of the CWMC, located at 1967 Old Maitland Road, Cessnock (-32°49'7", 151°23'4") and includes the operational landfill site, Community Recycling Centre (CRC), Push Pit area and surrounding bushland within the site footprint. The latest iteration of the PIRMP also cover's 'hot loads' (waste collection truck fires) which have the potential to occur across the Local Government Area (LGA).

The plan includes a description of potential hazards, preventative measures, response actions to pollution events and details of communication required in the event of a pollution incident.

The PIRMP is to be used in conjunction with the site Emergency Management Plan (DOC2019/108990).

1.3 Definition of "Pollution Incident"

The definition of a pollution incident is:

'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'.

A pollution incident is required to be reported if there is a threat or risk of 'material harm to the environment', which 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.

Immediate notification of relevant authorities is required if any pollution incident is declared. Notification will be prompted with the implementation of the if a pollution incident occurs that causes or threatens material harm to the environment.

1.4 Availability of Plan

A copy of this plan is available on Council's website and a hard copy is available at the premises.

2. POTENTIAL ENVIRONMENTAL HAZARDS

2.1 Description of Hazards

Potential pollution incidents identified include air pollution, water pollution and land pollution incidents. Noise pollution is not included as a notifiable incident.

A risk assessment was undertaken at the licenced site covered by this plan. The purpose of the risk assessment was to:

- Identify hazards
- Identify hazardous events
- Assess the likelihood of the event to occur
- Assess any other factors that may increase the potential for an incident to occur
- Assess the impacts
- Assess the overall risk

The full risk assessment including the risk matrix used in the assessment is given in the Appendix. The risk assessment considers existing on-site controls which are outlined in Section 2.2 (Pre-emptive Controls) below. The results of the risk assessment are summarised below.

Pollution Type	Description	Ave. Risk
Air Pollution Incident	Dust – escape of significant dust offsite	Medium (4)
	Fire in landfill or stockpiles – smoke to atmosphere	
	Landfill gas – asset damage or failure	
	Landfill gas – migration to neighbouring properties	
	Asbestos dust – potential for human exposure	
Water Pollution Incident	Sediment runoff – discharge into a nearby watercourse.	Medium (4)
	Leachate – discharge into a watercourse.	
	Fuel or chemical spill – significant spill discharging to watercourse	
	Groundwater contamination by migrating leachate	
	Sediment runoff – discharged off site	
Land Pollution Incident	Sediment runoff – discharge to neighbouring property	Medium (4)
	Leachate – discharge to neighbouring property	
	Fuel or chemical spill – discharge of significant spill to neighbouring property	
'Hot load'	Inextinguishable fire in vehicle – potential for contaminant discharge to waterways or atmosphere	Medium (4)
Noise Pollution	Not included as a notifiable incident	

2.2 Pre-emptive Controls

The Cessnock Waste Management Centre has been designed to comply with current environmental regulations and is operated in accordance with the site's Environmental Protection Licence and Landfill Environmental Management Plan.

2.2.1 Dust Mitigation

Dust control measures may include:

- Sealed entrance road and roads within transfer station.
- Water cart permanently onsite and used for dust suppression as required.
- A road sweeper is engaged to clean entry and exit roadways as required.
- High risk dust generation activities (i.e. civil works, internal road maintenance) may be suspended following extended hot and dry periods.

2.2.2 Fire

Fire controls may include:

- Regular removal of material stockpiles (i.e. green waste, tyres and scrap metal) from the site.
- Clear delineation and separation of stockpiled materials.
- Maintaining the minimum possible active landfill face.
- Applying day cover to the landfill face at the end of each day of operation.
- Maintenance of firefighting equipment
- Water cart permanently on-site
- Training of staff on fire management
- Controlling site access
- Control of materials are accepted at the site

2.2.3 Landfill Gas

Landfill gas controls include:

- Progressive landfill capping
- A landfill gas collection system and flare has been installed.
- Weekly inspection and maintenance of the landfill gas collection system
- Monthly reporting provided by LMS to assess gas flows
- An emergency contact details provided for LMS
- Landfill gas infrastructure has been mapped (Appendix A, 6).
- Routine methane monitoring

2.2.4 Asbestos Management

The site is licenced to accept asbestos waste. Asbestos management controls include:

- Asbestos waste is managed in accordance with the Safe Work Method Statement (SWMS) 306 – Disposal of Special Waste (DOC2023/104864).
- Asbestos that is inadvertently brought to the site is managed in accordance with the SWMS.
- Weighbridge operator ask customers if they have asbestos waste in the load at presentation.
- Signage at site and information provided to the community about correct disposal of asbestos.
- Asbestos managed and recorded in accordance with NSW EPA Asbestos and Waste Tyres Guidelines, Version 2 (2023).

2.2.5 Surface Water Management

Surface water management controls include:

- All stormwater runoff on the site is directed to the relevant sediment control dams.
- All fuelling of plant and equipment is carried out on site via mobile service vehicle operated from the Works Depot in accordance with the SWMS for On-site Refuelling.
- Sediment dam levels are managed to ensure adequate freeboard within the dam. This includes regular inspection by Environmental Landfill Officer and the use of water on site for dust suppression when levels increase. Sediment Dam levels are also managed by undertaking a planned discharge, authorised by the Environmental Landfill Officer in accordance with the Sediment Dam Planned Discharge Procedure (TRIM Ref DOC2022/166409).

2.2.6 Leachate Management

Leachate controls include a combination of strategies to manage leachate generation, storage and discharge risk. The primary objective is to maintain adequate freeboard in the Leachate Dam to prevent uncontrolled releases, particularly during sustained rainfall events.

Leachate volume control measures include:

- Regular inspections and clearing of stormwater drains and overland flow paths surrounding the Leachate Dam to prevent ingress of clean stormwater;
- Ongoing civil works to reinforce bunding, contouring, and diversion structures as required;
- Appropriate application of daily and intermediate cover, applied to the active landfill area to minimise rainfall infiltration and leachate generation. The prompt application of cover material as the landfill progresses reduces water ingress;
- Evaporation systems:
    - Twin high-flow sprinkler heads operating over the Leachate Dam surface
    - Sprinkler irrigation across the landfill batter
    - On-site tankering and application to the landfill batter under controlled conditions
- Irrigation methods are employed when the marker indicates that the Leachate Dam freeboard drops below -500mm or earlier if forecast weather conditions indicate elevated risk.

While offsite tankering and disposal remains technically an option for Council, Leachate is no longer accepted by Hunter Water at their WWTP's. Other licensed treatment facilities may be able to receive the leachate, however the transport and treatment costs are not sustainable or financially viable for Council.

Additional controls include regular inspections of stormwater drains and runoff pathways surrounding the leachate dam to ensure rainfall runoff does not enter the dam. Civil works are undertaken as required to maintain clear drains and stormwater diversions.

2.2.7 Fuel and Chemical Management

Fuel and chemical management include:

- All fuelling of plant and equipment is carried out on site via mobile service vehicle operated from the Works Depot in accordance with the SWMS for On-site Refuelling.
- All chemicals onsite are appropriately stored.
- Waste chemicals are stored in dedicated receptacles in CRC (oils and paints) or in bycatch cabinets. These are removed by an EPA appointed contractor.
- Any oil or chemical spills will be isolated and cleaned up using onsite spill kits. Once absorbed, materials will be appropriately disposed of.

2.2.8 Hot Loads

Pre-emptive hot load management includes:

- Providing guidance to the community as to what materials are not suitable for disposal in residential household bins.
- Encouraging collection truck drivers to routinely monitor truck's onboard 'hopper' camera after to assess suitability of waste collected and promptly identify any potential fires.
- Highlighting a number of key characteristics for potential areas to dump 'hot loads' across each collection truck run, that pose the lowest level risk to the public and environment.
- The CWMC watercart is to be filled up at the end of each shift to ensure that if a hot-load or fire is to occur before opening hours, this resource is available to use immediately for emergency / available staff.
- Routine training of staff preparedness for putdown areas should a hot load occur.

2.2.9 Noise Pollution

Noise pollution is managed by ensuring operations occur within operational time-limits and levels as defined by the sites operating licence. Any complaints from residents associated with noise production at the site may trigger monitoring and / or changes to operation.

Pre-emptive measures to reduce / mitigate noise production from the site include:

- Limiting plant equipment to only operate within the sites operating hours
- Selecting an appropriate tipping area with sufficient buffer to neighbouring properties
- Only pushing-up bins when required

2.3 Inventory of Pollutants

Pollutant	Location	Volume	MSDS Available
Leachate	Dedicated storage dam	Up to 8.5 ML	N/a
Sediment	Dedicated storage dams	Up to 5.4 ML – Dam A Up to 9.7 ML – Dam C	N/a
Waste oil	Dedicated receptacles in Community Recycling Centre (CRC)	Up to 2,000 litres	Stored at CRC
Waste paint	Dedicated receptacles in CRC	Up to 2,000 litres	Stored at CRC
Waste chemicals	Dedicated bycatch cabinets in CRC	Up to 500 litres	Through WHS system
Asbestos	Pre-arranged booking system for incoming loads which are immediately buried	Up to 80 tonnes per annum	No (SWMS used)
Fuel and oil used in plant	Stored in plant and onsite	Up to 1,000 litres	On WHS system
Chemicals used on site (truck wash and cleaning products)	Stored within staff amenities, weighbridge office, wash-down bay and storage container.	Up to 20 litres	On WHS system

2.4 Safety Equipment

The below safety equipment is available to staff to assist with the response to a pollution incident (Table 1). Six (6) Site Plans have been produced which include detailed schematic site information for major areas across the site (DOC2022/140879).

Table 1: Available onsite locations for safety equipment

Safety Equipment	Location
Personal protective equipment	Provided to staff from the site office
Spill kits	CRC, mixed waste push-pit and shed (spare – general purpose)
Fire extinguishers	Weighbridge, CRC, staff amenities, mobile plant and mixed waste push-pit
Fire hose reel	Mixed waste push-pit
Defibrillator	Weighbridge
Safe work method statements	Site office and Council's record system

3. INCIDENT RESPONSE

3.1 Council Personnel duties for Activation of Plans

Waste Management Staff responsible for the site are detailed below. Environmental incidents are to be managed by the Environmental Officer in conjunction with the Team leaders and Resource and Recovery Coordinator. Details below are for internal communication only, with a full list of contact requirements provided in Section 4, Incident Notification.

Name	Position	Responsibility	Contact Number
[redacted]	Landfill Environment Officer	Incident Controller / Communication	[redacted]
[redacted]	Project Engineer – Landfill Development	Incident Controller / Communication	[redacted]
[redacted]	Waste Service and Resource Recovery Coordinator	Support incident controller	[redacted]
[redacted]	Waste and Recovery Team Leader	Staff communication	[redacted]
[redacted]	Collections Team Leader	Staff communication	[redacted]
[redacted]	Waste Services Manager	GM / Council communication and notification if required	[redacted]

3.2 Incident Response Actions

Each incident will be assessed and responded to in a manner which is appropriate for the risk, severity, intensity, duration or potential exposure pathways for the specific incident.

The pollution events that are most likely to occur are those associated with spills and extreme weather events that may cause an overflow into surrounding areas or a significant landfill fire with potential to produce offensive or hazardous fumes.

In the event of a pollution incident the response should be as follows:

Step 1: Emergency Response – Ensure all staff and people on site are safe and initiate the appropriate response.

Step 2: Environmental officer to co-ordinate with the appropriate sections Team Leader to direct appropriate resources to prevent / control the environmental incident

Step 3: Environmental officer to complete or delegate the notification procedure as per PIRMP notification requirements

Step 4: Notify Environment and Waste Manager of the incident

3.3 Assessing the Risk

It is the Environmental Officer in combination with the site leadership teams responsibility to assess the risk of each incident and initiate an appropriate response. The level of severity will determine the notification requirements, with medium to high-risk incidents likely to trigger the PIRMP and associated responses.

3.3.1 Low Risk Incidents

Low risk incidents include those that have a localised impact and present a low risk to human health and minimal long-term impact on the environment if addressed appropriately.

Low risk incidents can be managed by the Environmental Officer and Team Leaders by assigning appropriately trained staff or contractors to the area to contain the incident / pollution and clean up as required. The localised area is to be cordoned off to prevent access. Low risk incidents may not trigger the PIRMP.

3.3.2 Medium Risk Incidents

Medium risk incidents include those where there is a potential for human health or the environment to be negatively impacted. Examples may include; stockpile fires with non-hazardous smoke or a significant fuel or chemical spill in an area frequented by the public, or an event that is large enough that it may pose material risk to the environment.

A medium risk incident may require further external assistance to contain, manage and remediate the impacted area(s). Where required, a medium risk incident may trigger the PIRMP.

3.3.3 High Risk Incidents

High risk incidents may require site evacuation and consultation with surrounding property owners. These incidents have the potential to severely impact human health and cause environmental harm. High risk incidents may not be contained within the site boundary, and will require significant containment resources (internal and external) to minimise environmental harm. Emergency services will be required to assist with containment and clean-up.

High risk incidents may require ongoing long – term monitoring and / or remediation.

3.4 Specific Incident Responses

The below specific incident responses are to be used as a guide to manage generic incidents. These responses may not provide a comprehensive list of actions required to adequately contain / remediate environmental incidents. Environmental incidents that activate the PIRMP are reviewed as part of the update and testing procedure, with changes incorporated into the below sections as required.

3.4.1 Chemical/Oil Spills (Small)

Only persons trained in chemical spill control techniques shall attempt to clean up spills.

In the case of a spill of a hazardous material on site, the following actions should be undertaken:

1. Move customers away from the area and upwind of spill.
2. Avoid all contact with the spilled material.
3. Wear PPE (Chemical boots, respirator, goggles, gloves, apron).
4. Contain the spill using chemical absorbent material in spill kit or soil. Where possible dry clean-up methods are only to be used.
5. Pick up material and put into a designated container for appropriate disposal.
6. Label the container with details of contents if known (i.e. chlorine bleach and clay).
7. Place the container into the relevant dangerous goods cabinet.
8. Notify Waste Services Coordinator and Environment and Waste Manager of the incident and provide an update of actions.

9. Report the details of the spill in an incident report including:
    - Type and quantity of spilled material;
    - Location, time and date;
    - Description of the actions taken to contain and clean up the spilled material.

Small spills are defined as spills where the identity of the material is known, the quantity is minor and sufficient resources (personnel and equipment) are onsite to contain and clean up the spilled material.

3.4.2 Chemical /Oil Spill (Large)

In the event of a major spillage, contamination to workers or other emergency (e.g. fire), the following procedure shall be followed:

1. The area around the spill should be evacuated at once.
2. Keep away until the chemical is identified.
3. Stay upwind - Avoid breathing gas, fumes, mist or dust.
4. Avoid contact with material.
5. Treat any persons as per injury management section below.
6. Inform Site Supervisor (Chief Warden)
7. Determine the identity of the substance(s)(if safe to do so) and obtain their Material Safety Data Sheets (MSDS) if available. Observe HAZCHEM precautions.
8. Stop leak if safe to do so. Prevent spillage from entering drains if safe by using spill kits.
9. Notify Emergency Services by calling 000.
10. Isolate the affected area by erecting a temporary barricade and prevent other persons entering the area.
11. Site Supervisor (Chief Warden) will assess the need to evacuate the area or facility. If required evacuate the facility in accordance with the Waste Management Site Emergency Plan (DOC2019/108990).
12. Do not attempt to decontaminate the area. Leave this either to the staff who have been trained to deal with the situation or to emergency services.
13. Notify Waste Services Coordinator and Environment and Waste Manager of incident and provide an update of actions.
14. In the case of fire, every effort must be made to prevent undue spreading of contamination. However, fire-fighting must take precedence over the control of contamination.
15. Incident site should not be disturbed until the relevant authorities has given the appropriate clearance.
16. Normal work must not be resumed until the Site Supervisor (Chief Warden) is satisfied that it is safe.
17. Report the details of the spill as in Small Spills procedure.

3.4.3 Fires

Location, number and type of fire extinguishers on the site

1. Community Recycling Centre – AB(E)(1x) and Wet Chemical(1x);
2. Staff Amenities Building – AB(E) (1x) and fire blanket (1x);
3. Mixed Waste Push-Pit – AB(E) (3x);
4. In each item of plant – AB(E) (1x each)

Be sure to use the correct fire extinguisher for the type of fire

3.4.4 Building or Structural Fire

1. Remove anyone in immediate vicinity, if it is safe to do so.
2. Try to extinguish the fire with the correct equipment, but do not take unnecessary risks.
3. Notify the Site Supervisor (Chief Warden).
4. Site Supervisor (Chief Warden) to assess the situation, and commence evacuation if deemed necessary.
5. Notify Emergency Services via 000 (state the exact location and details of the fire).
6. Notify Council Customer Service on 4993 4100.
7. Wait for emergency services to arrive and assess the situation.
8. Notify, by telephone, the Waste Services Coordinator and Environment and Waste Manager of the incident and provide an update of the action undertaken.
9. Wait for approval from Emergency Services before re-entering the site.

10. Liaise with Emergency Services whether the site is safe to be re-opened.
11. If site to remain closed but personal belongings are located on the site, re-enter the site and obtain personal belongings after approval from Emergency Services.

3.4.5 Fire in stockpile or active tip-face

1. Remove all customers and workers from the tip-face or stockpile fire
2. Try to extinguish the fire with the extinguisher located on the plant equipment, but do not take unnecessary risks.
3. Notify the Site Supervisor (Chief Warden).
4. Site Supervisor (Chief Warden) to assess the situation, and commence evacuation of area or site if deemed necessary.
5. Notify Emergency Services via 000 (state the exact location and details of the fire).
6. Keep all unauthorized people away from the area of the fire whilst protecting personal safety.
7. Notify Council Customer Service on 4993 4100.
8. Wait for emergency services to arrive and assess the situation.
9. Notify, by telephone, the Waste Services Coordinator and Environment and Waste Manager of the incident and provide an update of the action undertaken.
10. Wait for approval from Emergency Services before re-entering the site.
11. Liaise with Emergency Services whether the site is safe to be re-opened.
12. Record details of the fires in the Fire Record Reporting Spreadsheet (DOC2023/147533).

3.4.6 Vehicle Fire

1. Ensure all workers or customers have safely exited the vehicle.
2. Try to extinguish the fire with the extinguisher located on the plant equipment, but do not take unnecessary risks.
3. Notify the Site Supervisor (Chief Warden).
4. Site Supervisor (Chief Warden) to assess the situation, and commence evacuation if deemed necessary.
5. Notify Emergency Services via 000 if necessary (state the exact location and details of the fire).
6. Keep all unauthorized people away from the area of the fire whilst protecting personal safety.
7. Notify, by telephone, the WSC and EWM of the incident and provide an update of the action undertaken.

3.4.7 Fire in vehicle load – onsite at CWMC

This refers to a vehicle loaded with waste which is either on fire, smouldering or smoking prior to unloading the vehicle.

1. Direct the driver to dump the material in a clear area that is away from the landfill face and clear of any vegetation and/or debris.
2. Notify the Site Supervisor (Chief Warden).
3. Should it not be possible to move the vehicle to a clear space assess the situation and determine if evacuation of the area or site is required.
4. Notify Emergency Services via ‘000’ if necessary (state the exact location and details of the fire).
5. Keep all unauthorized people away from the area of the fire whilst protecting personal safety.
6. If possible spread out the load and extinguish the fire using the correct extinguisher type, water or placing soil on top of the fire.
7. Notify, by telephone, the Waste Services Coordinator and Environment and Waste Manager of the incident and provide an update of the action undertaken.
8. Once fire is determined to be completely out, Chief Warden shall assess the content of the waste to determine if any hazardous materials are present. Once safe to do so the waste shall be transferred to the Landfill.
9. Where hazardous wastes are involved contact the NSW Fire Brigade by telephoning ‘000’ and request their attendance.

3.4.8 Hot Load

A ‘hot load’ is an incident where a fire has started in the hopper of a garbage truck and cannot be extinguished within the garbage truck, and therefore must be tipped onto the ground (outside the boundary of the CWMC).

A ‘Hot Load’ procedure (DOC2024/115181) has been developed to assist drivers and operators understand the emergency and reporting procedures of a ‘hot load’.

Collection drivers are to follow their Safe Work Method Statement (SWMS – 310) (DOC2023/104874) under normal operating conditions to reduce the potential for fires where practical.

For current incidents, drivers are to report any hot loads to their supervisor and the CWMC environmental officer to commence pollution reduction actions, clean-up, remediation and reporting.

3.4.9 Air Pollution – Dust

Excessive dust emissions generated from onsite activities should be remedied promptly.

Effective controls for dust emissions can include:

1. Water spray on unsealed roads
2. Wetting down of stockpiles
3. Advising vehicle to reduce their speed
4. Cessation or suspension of activities that may be generating excessive dust

Which dust control measures are implemented will depend on the activities occurring on site and will involve:

- Increasing the frequency at which the water cart is wetting down exposed areas and stockpiles
- Increasing the frequency at which the water cart is wetting down unsealed surfaces
- Modifying any site activities that are causing excess dust

3.4.10 Air Pollution - fire in landfill or stockpiles – smoke to atmosphere

1. Use plant equipment (where safe) to remove burning material and push away to an isolated area
2. Apply soil to the impacted material to reduce oxygen exposure. Continue to apply soil until smoke generation has reduced
3. Use site’s watercart to soak impacted material
4. Additional resources (firefighters) may be called upon to assist or takeover the firefighting duties where required

3.4.11 Landfill gas – asset damage or failure

1. If gas lines have been cut – immediately cover gas-lines with soil to cover off the exposed area. Covering the damage will reduce the emissions of methane through the pipe and may re-instate draw of methane towards the flare
2. Mark off the impacted area so that the gas contractors can easily identify the impacted area for repairs.
3. Flare will automatically shut-down if oxygen / methane concentration exceeds safe thresholds.
4. Gas contractor will remotely shut-down any ancillary equipment if required to make the site safe
5. Cessnock City Council to notify landfill gas contractor if asset(s) have been damaged by council equipment and require urgent repairs.

3.4.12 Landfill gas – migration to neighbouring properties

Landfill gas is likely to dissipate before it reaches neighbouring properties considering distances between the active landfill and local residents. However, should significant methane concentrations be detected;

1. Remove any staff or the public from areas with methane levels >500ppm
2. Following Emergency Management Plan for evacuation of site (if required)
3. Notify residents using PIRMP notification procedure
4. Notify gas contractor to determine if gas infrastructure is functioning correctly. Request that any issues are rectified to reduce potential impact from emissions.

3.4.13 Water Pollution

Surface water quality can be impacted by a variety of sources on the site. These include spills of fuel or oil from vehicles and equipment, escape of leachate from the leachate collection system or contamination of surface water that comes into contact with waste materials.

Where available, sandbags, coir logs or other filtering means should be deployed to reduce the potential for sediment laden waters to discharge downstream. These items are available from the store / depot.

Where water is contained but likely to discharge in the coming days but is not of suitable quality. Additional chemical stabilisation products can be used. There are available from the 'Gray shed' onsite and their use is managed by the environmental officer.

All runoff from the landfill area should be treated as leachate.

3.4.14 Leachate Discharge

The Waste Management Centre does not currently have approval to tanker to Hunter Water's Waste Water Treatment Works (WWTWs). There are currently limited actions that can be taken to manage these instances once the leachate dam has leachate capacity. Therefore, priority must be placed on pre-emptive management of leachate under preferred climatic conditions. Adherence to pre-emptive measures will significantly reduce the potential for discharges.

Pre-emptive Leachate Management Actions

- Spray irrigation over the leachate pond using the dual 2-inch irrigation heads
    - Irrigation times are to be recorded in 'Leachate Dam Checklist'
- Spray irrigation over the landfill. Irrigation is to be under strict conditions and only undertaken in accordance with the run times indicated in the 'Leachate Irrigation Area Calculations Spreadsheet (DOC2025/110085)
- Water Cart Leachate Disposal using the non-potable watercart
    - Discharge volumes and locations are to be recorded as per 'Water Cart Leachate Disposal' (DOC2025/110084), Leachate Pond – tankering discharge calculations (DOC2025/110087) and recorded in the 'Leachate Dam Checklist' (DOC2025/110089).

During a discharge event

During discharge, emergency services must be notified as per Section 4.1 of this document. Once the flow path has been identified, arrange for an environmental monitoring programme to begin (either internally or externally). At a minimum, samples must be collected from the point source, Surface Water (SW3), SW4 and one initial upstream sample (SW1), Figure 1. Samples are to be collected in accordance with the requirements outlined in the sites EPL monitoring type. An example of the monitoring type is highlighted in the table below.

EPL Identification Number	Site Name	Type of Monitoring Point	Analytes Required (as per EPL)
1	Leachate Pond	Water Quality Monitoring	Special Frequency 1 Analytes
13	SW1 – Upstream Sampling Location	Ambient monitoring	Quarterly
15	SW3 – Downstream Sample Location	Ambient monitoring	Quarterly
NA	SW4 – Site Boundary	Ambient Monitoring	Quarterly

Figure 1 - Surface Water Sampling Locations

In addition to the environmental monitoring programme, Council is trialling the use of strategically positioned Biochar socks as a means to reduce pollutant levels. A minimum of six (6) 5m long Biochar socks are to be evenly placed in the flow-path of the discharge water (before it reaches receiving waters). Biochar socks are to be placed to be slightly curved to slow down discharge waters and increase contact time with the Biochar.

4. INCIDENT NOTIFICATION

4.1 Notification of External Parties

In the event of a pollution incident that is causing or threatens to cause material harm, the authorities listed must be immediately verbally notified in the order below.

The Environmental officer is to complete the notifications below, or delegate to an appropriate staff member.

Sequence	Contact		Details
1	Emergency Services	Police, Fire, Ambulance	000 (24 hours)
2	NSW EPA	Environment Hotline	131 555 (24 hours)
3	NSW Health	Hunter New England Health Public Health Unit - Newcastle Office	4924 6477 (diverts to John Hunter Hospital after hours – ask for Public Health Officer on call).
4	SafeWork NSW		131 050 (24 hours)
5	Cessnock City Council	Customer Service Section	4993 4100
6	Fire and Rescue NSW (Operational Communications)	To be notified of an incident that is not an emergency	4979 3755

Note: Phone numbers are current as at the date of this document

4.1.1 Information Required for Notification

When notifying the relevant Authorities, state that you are calling to advise of a pollution incident and provide the following information (if known):

- The time, date, nature, duration and location of the incident;
- The location of the place where pollution is occurring or is likely to occur;
- The nature, the estimated quantity or volume and the concentration of any pollutants involved;
- The circumstances in which the incident occurred (including the cause of the incident, if known);
- The action taken or proposed to be taken to deal with the incident and any resulting pollution or potential pollution; and
- Other information prescribed by the regulations.

Any required information that is not known when the incident is notified must be notified to the relevant Authorities immediately once it becomes known.

4.1.2 Records of Notification

When each of the relevant Authorities are notified, the following must be recorded:

- The time of the call;
- The date of the call;
- Incident/reference numbers given by the relevant Authority;
- The name of the operator;
- Information provided; and
- If further notification is required.

The below table can be used as a template to record the required details.

Agency	Call Date	Call Time	Reference Number (if provided)	Is further notification required?
NSW EPA				
NSW Health				
SafeWork NSW				
Cessnock City Council				
Fire and Rescue NSW				

4.2 Communicating with Neighbours and Local Community

Communicating with neighbours and the local community is an important step in managing pollution incidents.

As part of the risk assessment process outlined in this document, council has identified a number of potential incidents that may occur at the premises and has considered the extent to which these incidents may impact neighbours or the broader community. Based on the identified risks, council has a number of communication strategies in-place to provide efficient, effective and inclusion communication for potentially impacted communities.

Where a pollution incident has occurred either onsite, or during an activity associated with the site (i.e. waste collection – hot loads), council may enlist one or more of the following communication mediums to alert nearby residents;

- Incident notifications via the Cessnock City Council website
- Social media posts via the Cessnock City Council Facebook page
- Telephone calls (SMS)
- Pollution incident signage
- Letterbox drops
- Doorknocking

Type of notification will be dependent on the severity, intensity and scope of the incident. Small ranging, or localised incidents are most likely to be will be managed via telephone, SMS, letterbox drops or doorknocking. Larger ranging incidents or more severe incidents may enlist the use of broader notification systems such as council's website / social media to ensure efficient and widespread communication is achieved.

For incidents associated with the landfill operations, there are limited rural premises in the area surrounding the Cessnock Waste Management Centre. A potential pollution incident is unlikely to affect neighbours. The nature of the incident and environmental factors such as wind direction will determine the most appropriate properties to be notified.

5. DOCUMENT ADMINISTRATION

5.1 Testing and Review

The PIRMP is tested and reviewed at a minimum of at least once every 12 months. Scenario testing may be in the form of either desktop or practical exercises, and at a minimum include working through an incident scenario to ensure the PIRMP can be actioned effectively. Testing of the plan is recorded in the corresponding years 'PIRMP Testing and Review' spreadsheet. At a minimum, the testing and review spreadsheet details:

- the manner in which the test was undertaken
- the date when the plan has been tested
- the person(s) who carried out the testing
- details of any action or changes required to the PIRMP.

Testing and review is to be undertaken by the Environmental officer, or delegated to an appropriate staff member.

The PIRMP must also be tested within one month of any pollution incident occurring. Testing in this instance may take the form of a post-incident debrief to determine whether the PIRMP was effective during the pollution incident. Details of the post-incident details will be recorded as above.

The PIRMP may also be reviewed following legislative changes or additional requirements.

5.2 Staff Training

Effective implementation of the plan requires communication with all relevant employees. Training of staff will ensure that staff are aware of the plan and how to implement it in the event of a pollution incident.

Training will be coordinated by the Environmental Officer.

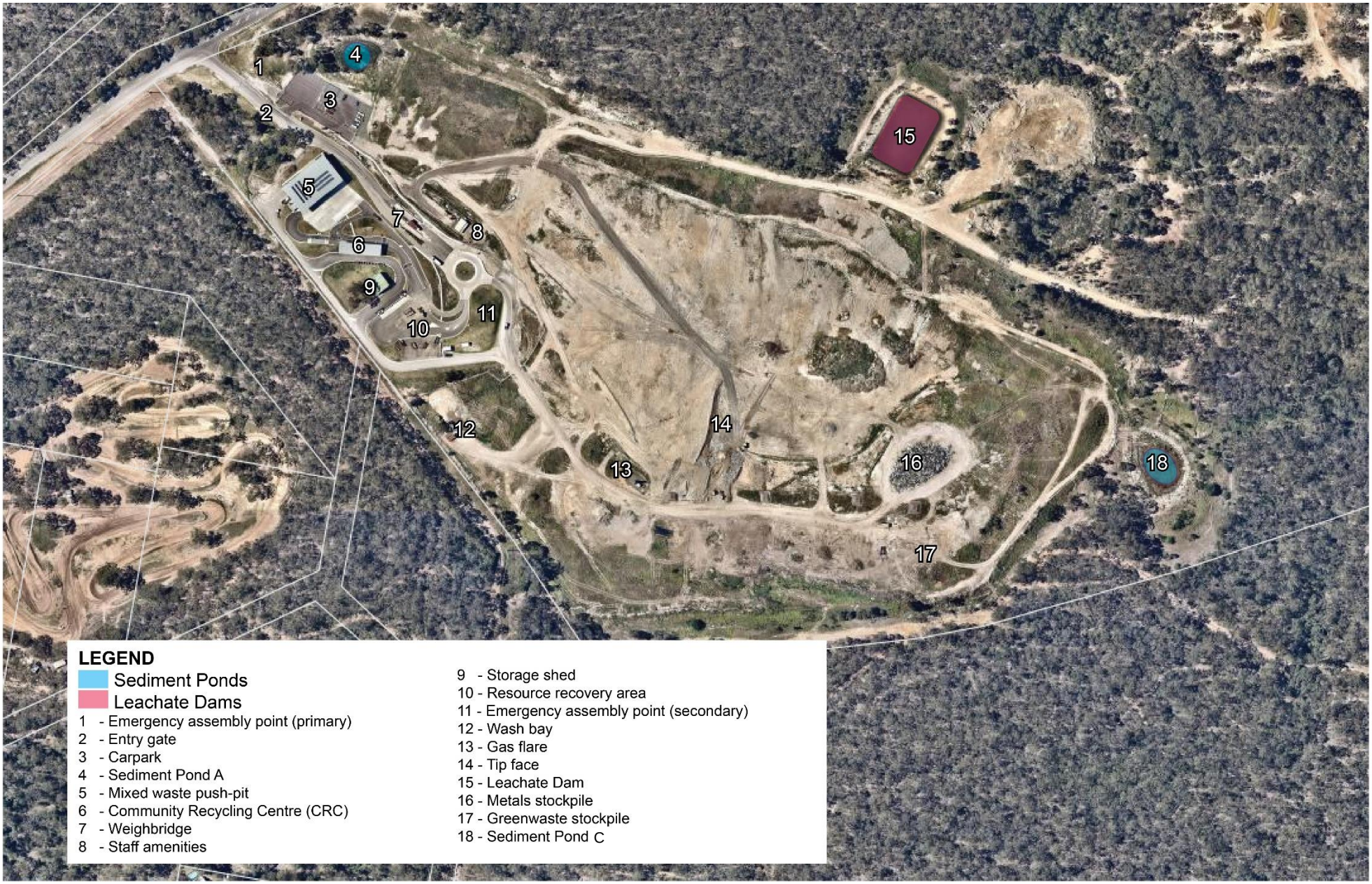
All staff will be trained in the PIRMP at a minimum once every 6 months. Training may occur via Toolbox meetings, specific sessions or as training exercises, as needed.

Records of training will be maintained and will detail who undertook and delivered the training, as well as the content that was communicated.

6. MAPS

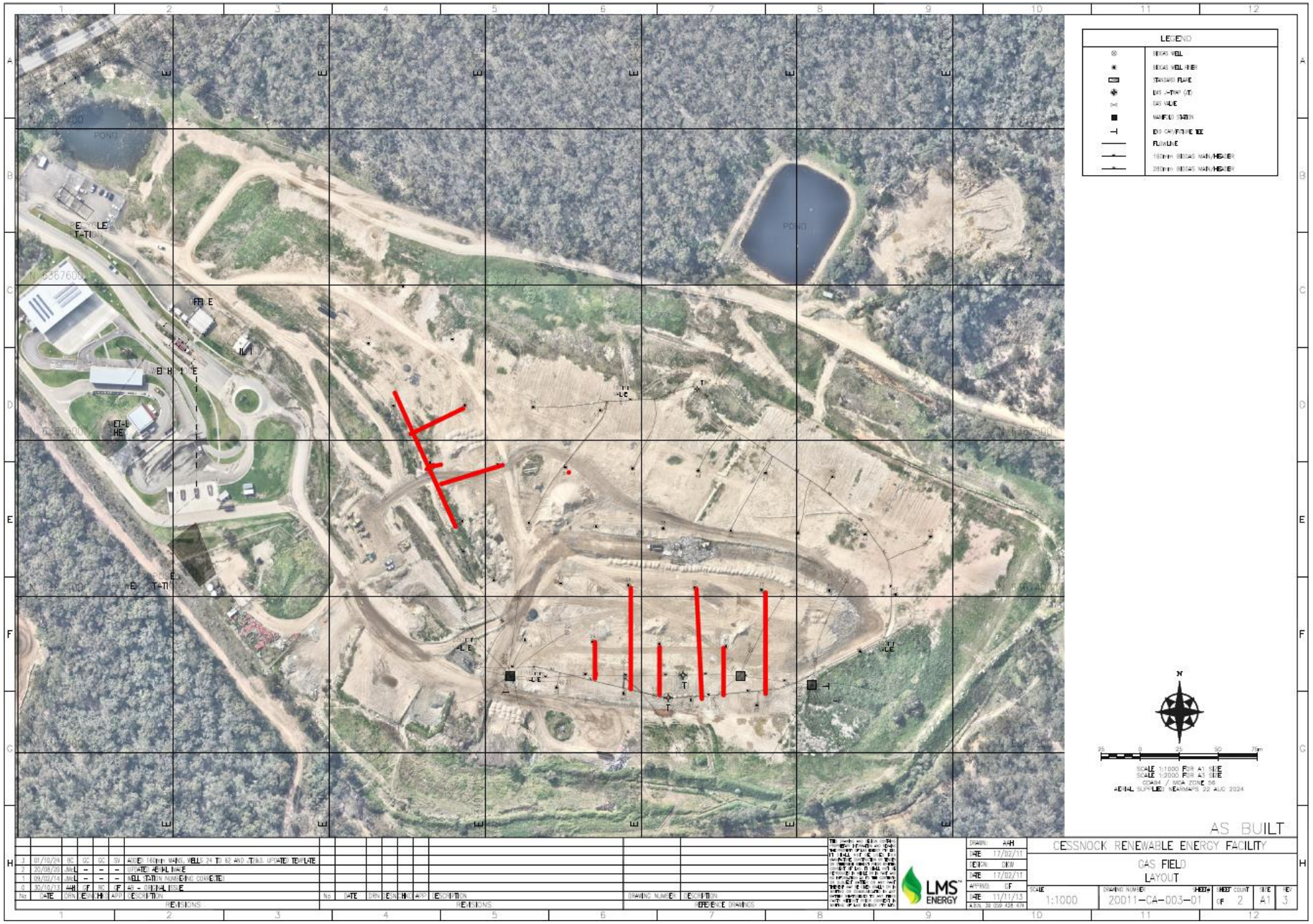
6.1 Site Location

6.2 Site Map – Potential Pollution Sources



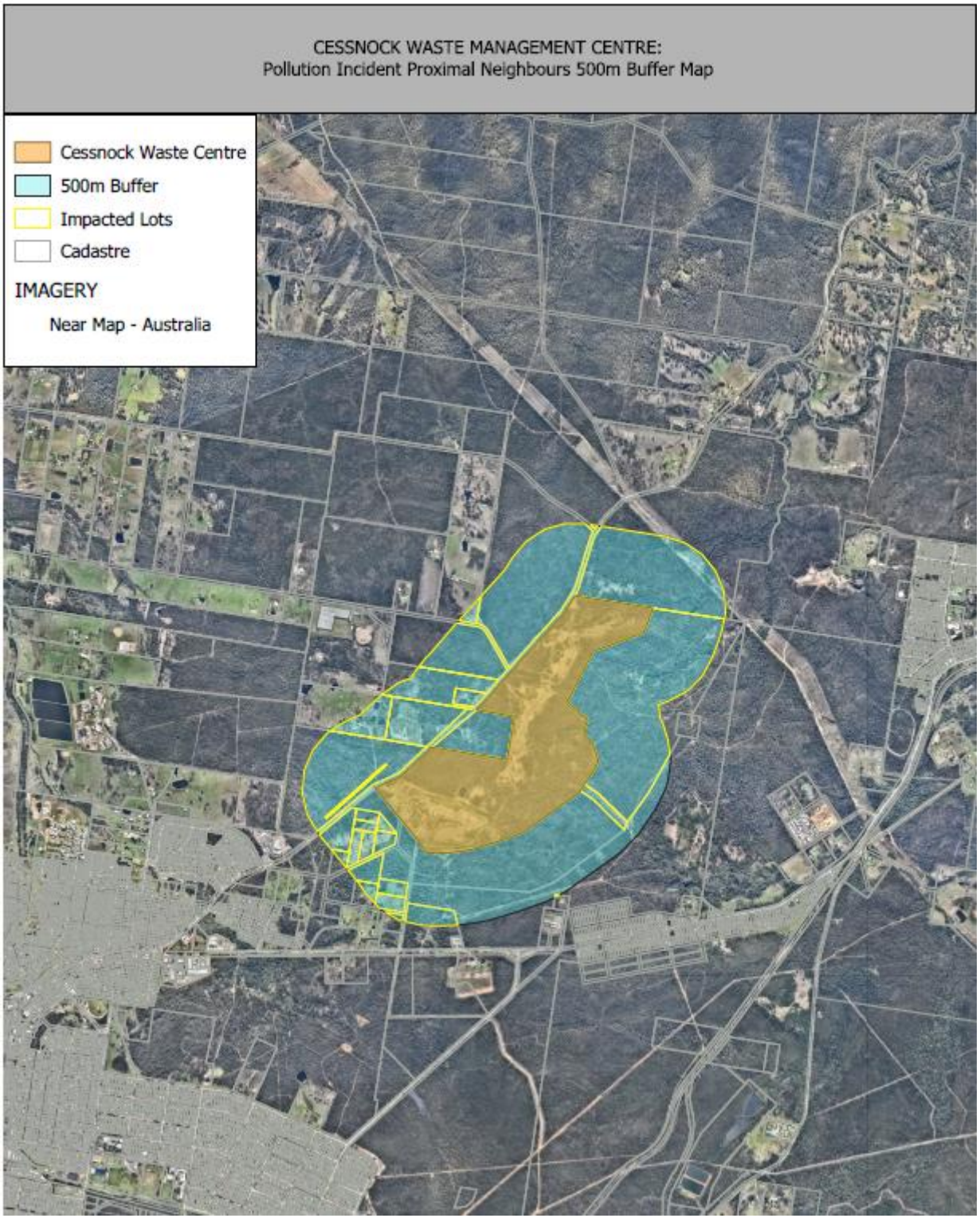
6.3 Site Drainage

6.4 Gas Infrastructure

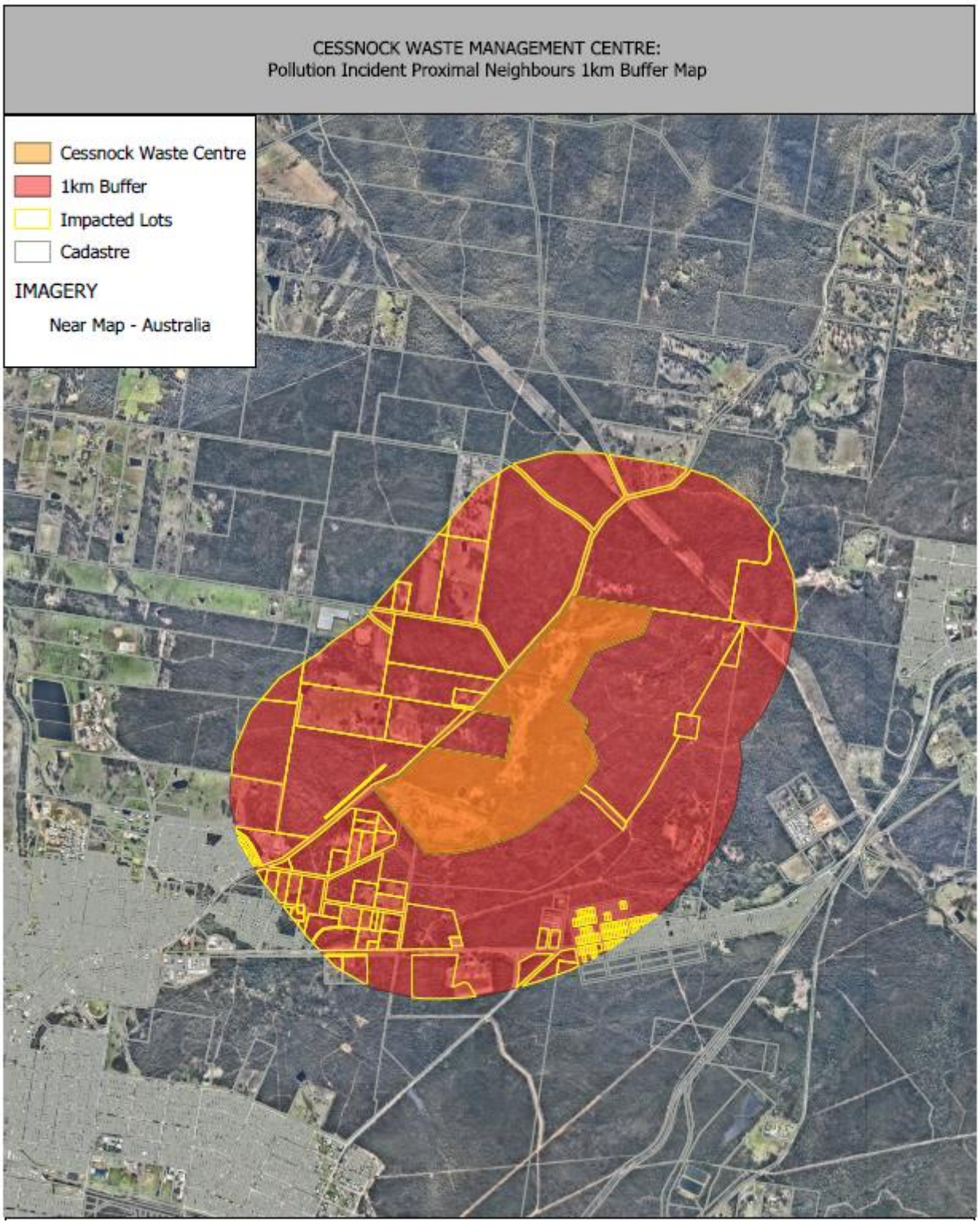


6.5 Downstream Residents Map

Customer lists available at: DOC2024/157198



Customer lists available at: DOC2024/157198



Appendix A - Risk Assessment

Type of pollution	Hazard	Likelihood	Events of circumstances that will increase likelihood	Impact	Assessed Risk
Water Pollution	Overflow of leachate pond into waterway	Unlikely	High rainfall for extended period (ephemeral waterways in close proximity only)	Medium	Medium (4)
	Overflow of sediment pond into waters	Unlikely	High rainfall for extended period (ephemeral waterways in close proximity only)	Minor	Minor (5)
	Groundwater contamination by migrating leachate	Likely	Close proximity to bore Highly permeable subsurface Failure of leachate collection system	Medium	Medium (3)
	Runoff of sediment laden waters from disturbed areas of site to environment/neighbouring property	Likely	High rainfall event and loss of site drainage controls	Minor	Medium (4)
	Chemical, fuel or oil spill entering waterway/waterbody	Unlikely	High rainfall event Waste oil and hazardous waste stored/collected incorrectly	Medium	Medium (4)
Land Pollution	Soil pollution as a result of a fuel, chemical or oil spill	Likely	Waste oil or chemicals store incorrectly or inadvertently deposited into landfill	Minor	Medium (4)
	Soil pollution as a result of runoff of sediment laden water	Likely	High rainfall event reducing capacity of sediment dams Change in site drainage as a result of site activities	Minor	Medium (4)
	Leachate discharge to soil/environment/ neighbouring property	Likely	High rainfall event. Failure of leachate collection system	Medium	Medium (4)
Air Pollution	Fire in the landfill or stockpiles	Likely	Illegal access into the site	Medium	Medium (3)
	Methane gases above permitted levels	Unlikely	Fault within the methane collection system	Medium	Medium (4)
	Excessive dust generation	Unlikely	Excessive wind and unavailable water	Minor	Minor (5)
	Other toxins, particulates emitted into the air e.g. Asbestos fibres.	Unlikely	Procedures not correctly followed for asbestos disposal	Medium	Medium (5)
Hot Load	Inextinguishable fire in vehicle – load required to be dumped outside of facility	Likely	Incorrect disposal of waste	Medium	Medium (3)

RISK MATRIX

Hierarchy Of Controls
1. Elimination of Hazard
2. Substitution e.g. of equipment or substance
3. Isolation e.g. distance or enclosure
4. Engineering e.g. guarding with cut of switch
5. Administration e.g. signage, written procedures
6. Personal protective equipment e.g. safety glasses

	LIKELIHOOD				
	Risk Matrix How severely could it hurt someone or damage the environment	Very Likely Could happen anytime	Likely Could happen sometime	Unlikely Could happen, very rarely	Very Unlikely Could happen, probably never will
CONSEQUENCE	Catastrophic OHS – Death, permanent disability, disease. Environmental – extreme community dissatisfaction, extreme pollution, toxic release, requires outside assistance.	1	1	2	3
	Major OHS – Extreme injury, long term illness Environmental – high level of community discontent, severe pollution extending beyond site.	1	2	3	4
	Medium OHS – Medical attention, several days off work. Environmental – frequent community complaints, significant pollution onsite, contained with assistance.	2	3	4	5
	Minor OHS – First Aid Environmental – occasional community complaints, low level pollution and controlled onsite.	3	4	5	6

Consequence	Likelihood
When completing risk assessment use risk score matrix and follow the process below for the following scores.	
If 1 or 2 Major	Do not commence job, see coordinator/section manager. Formal risk assessment and safe work method statement
If 3 or 4 Medium	Use developed safe work method statement or standard operating procedure.
If 5 or 6 Minor	Job can proceed without work procedure

Appendix B – Document Directory

This Appendix details information required for inclusion in the PIRMP under Section 153C of the POEO Act 1997 and clause 98C of the POEO (General) Regulation 2009 - Chapter 7, Part 3A and details where the information is located in this document.

Section	Detail Required	Section covered
Protection of the Environment Operation Act 1997		
153A	Duty of a licence holder to prepare a PIRMP	Section 1.1
153C (a)	The procedures to be followed by the holder of the relevant EPL in notifying a pollution incident to: (i) The owners or occupiers of premises in the vicinity of the premises to which the EPL relates, and (ii) The local authority for the area in which the premises to which the EPL relates are located and any area affected, or potentially affected, by the pollution, and (iii) Any persons or authorities required to be notified by Part 5.7 (of the POEO Act)	Section 4
153C (b)	A detailed description of the action to be taken, immediately after a pollution incident, by the holder of the relevant EPL to reduce or control any pollution,	Section 3
153C (c)	The procedures to be followed for co-ordinating, with the authorities or persons that have been notified, any action taken in combating the pollution caused by the incident and, in particular, the persons through whom all communications are to be made,	Section 4
153D	Licensee must ensure that the PIRMP is kept at the premises	Section 1.4
153E	Licensee must ensure that PIRMP is tested in accordance with the regulations	Section 5.1
153F	Licensee must immediately implement PIRMP if a pollution incident occurs	Section 3 & 4
POEO (General) Regulation 2009		
98C (1)(a)	a description of the hazards to human health or the environment associated with the activity to which the licence relates (the relevant activity)	Section 2.1
98C (1)(b)	the likelihood of any such hazards occurring, including details of any conditions or events that could, or would, increase that likelihood,	Appendix A
98C (1)(c)	details of the pre-emptive action to be taken to minimise or prevent any risk of harm to human health or the environment arising out of the relevant activity,	Section 2.2
98C (1)(d)	an inventory of potential pollutants on the premises or used in carrying out the relevant activity,	Section 2.3
98C (1)(e)	the maximum quantity of any pollutant that is likely to be stored or held at particular locations (including underground tanks) at or on the premises to which the licence relates,	Section 2.3
98C (1)(f)	a description of the safety equipment or other devices that are used to minimise the risks to human health or the environment and to contain or control a pollution incident,	Section 2.4
98C (1)(g)	the names, positions and 24-hour contact details of those key individuals who— (i) are responsible for activating the plan, and (ii) are authorised to notify relevant authorities under section 148 of the Act, and (iii) are responsible for managing the response to a pollution incident,	Section 3.1
98C (1)(h)	the contact details of each relevant authority referred to in section 148 of the Act,	Section 4.1

98C (1)(i)	details of the mechanisms for providing early warnings and regular updates to the owners and occupiers of premises in the vicinity of the premises to which the licence relates or where the scheduled activity is carried on,	Section 4.3
98C (1)(j)	the arrangements for minimising the risk of harm to any persons who are on the premises or who are present where the scheduled activity is being carried on,	Section 3.2
98C (1)(k)	a detailed map (or set of maps) showing the location of the premises to which the licence relates, the surrounding area that is likely to be affected by a pollution incident, the location of potential pollutants on the premises and the location of any stormwater drains on the premises,	Section 6
98C (1)(l)	a detailed description of how any identified risk of harm to human health will be reduced, including (as a minimum) by means of early warnings, updates and the action to be taken during or immediately after a pollution incident to reduce that risk,	Section 3.2 & 4.2
98C (1)(m)	the nature and objectives of any staff training program in relation to the plan,	Section 5.2
98C (1)(n)	the dates on which the plan has been tested and the name of the person who carried out the test,	Testing History
98C (1)(o)	the dates on which the plan is updated,	Revision History
98C (1)(p)	the manner in which the plan is to be tested and maintained.	Section 5.1
98D (1)	A plan is to be made readily available— (a) to an authorised officer on request, and (b) at the premises to which the relevant licence relates, or where the relevant activity takes place, to any person who is responsible for implementing the plan.	Section 1.4
98D (2)	A plan is also to be made publicly available in the following manner within 14 days after it is prepared— (a) in a prominent position on a publicly accessible website of the person who is required to prepare the plan, (b) if the person does not have such a website—by providing a copy of the plan, without charge, to any person who makes a written request for a copy.	Section 1.4
98E (1)	The testing of a plan is to be carried out in such a manner as to ensure that the information included in the plan is accurate and up to date and the plan is capable of being implemented in a workable and effective manner.	Section 5.1
98E (2)	Any such test is to be carried out— (a) routinely at least once every 12 months, and (b) within 1 month of any pollution incident occurring in the course of an activity to which the licence relates so as to assess, in the light of that incident, whether the information included in the plan is accurate and up to date and the plan is still capable of being implemented in a workable and effective manner.	Section 5.1