Pollution Incident Response Management Plan (PIRMP)

Bowral Waste Centre

2024

Contents

1 Testing and Revision Log

PIRMP Revision Log

Rev No	Date	Revision Details	Author	Reviewer
0	26/11/2019	Initial PIRMP preparation	Theresa Nguyen (4Pillars)	James Hammond (4Pillars)
1	18/02/2020	Revision	Theresa Nguyen (4Pillars)	James Hammond (4Pillars)
2	09/04/2021	Revision	Theresa Nguyen (4Pillars)	James Hammond (4Pillars)
3	03/05/2022	Revised Content	Alycia O'Brien (BWC)	Rod Johnston (Site Manager)
4	03/05/2023	Revision	Alycia O'Brien (BWC)	Rod Johnston (Site Manager)
5	10/11/2023	Revision	Peter Murdocca (BWC)	Rod Johnston (Site Manager)
6	07/11/2024	Revision	Alycia O'Brien (BWC)	Rod Johnston (Site Manager)

PIRMP Testing Log

Date Tested	Method of Testing (Desktop or practical drill)	Tested by	Position
21/01/2020	Desktop	Rod Johnston	Site Manager
14/04/2021	Desktop	Rod Johnston	Site Manager
03/05/2022	Desktop	Rod Johnston	Site Manager
03/05/2023	Desktop	Rod Johnston	Site Manager
10/05/2023	Desktop	Rod Johnston	Site Manager
07/11/2024	Desktop	Rod Johnston	Site Manager

2 Introduction

Bowral Waste Centre (BWC) is the holder of Environment Protection Licence (EPL) No. 13366 and as such, is required to prepare and maintain a Pollution Incident Response Management Plan (PIRMP) in accordance with Part 5.7A of the *Protection of the Environment Operations Act 1997* (POEO Act) and Part 3A of the *Protection of the Environment Operations (General) Regulation 2009* (the POEO General Regulation). This requirement was added in 2011, via the *Protection of the Environment Legislation Amendment Act 2011* (POELA Act). In addition to preparing the PIRMP, the licence holder must keep a copy of the Plan at the premises (Section 153D) and 'test' the Plan in accordance with the General Regulation. The Bowral Waste Centre PIRMP (the Plan) works with and is complementary to:

- The Pollution Incident Response Procedure (the Procedure);
- The Landfill Environmental Management Plan (LEMP); and
- The Site Safety and Environmental Rules and Site Induction

These documents establish the framework that helps protect the environment, as well as the health, safety and well-being of all persons and stakeholders associated with the Bowral Waste Centre site.

In preparing and reviewing the Plan, it is important to reiterate the definition, objectives and purpose of the Plan, as detailed in the *NSW EPA Environment Guidelines: Pollution Incident Response Management Plans 2019* (the PIRMP Guideline). This serves to reinforce to all personnel, the importance and role of the PIRMP.

2.1. Definition

As per the definition in the POEO Act dictionary, 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."

As per Section 148 of the POEO Act, notification of a pollution incident must occur if "*material harm to the environment is caused or threatened*".

'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.

2) For the purposes of this Part, it does not matter that harm to the environment is caused only in the premises where the pollution incident occurs."

The PIRMP must be implemented if, during any given activity, a pollution incident occurs that causes or threatens to cause material harm, however, it is important to note that not all pollution incidents are notifiable. The distinction between different types of pollution incidents, and when and how to notify relevant authorities in the event of a pollution incident which threatens to cause 'material harm' to the environment is made clear in the flow chart at the beginning of the Procedure.

2.2. Purpose of PIRMP

The purpose of this PIRMP is to prevent pollution incidents from occurring by facilitating training, plant and equipment maintenance, effective site supervision and good housekeeping. The PIRMP places emphasis on the prevention of incidents by making it clear that it is the responsibility of all employees, subcontractors and visitors to the site to remain vigilant when on site.

The purpose of the Plan is also to improve the management of pollution incidents and enable better coordination with the relevant response agencies. This is achieved by making the PIRMP easily accessible in written form and be provided to an authorised EPA officer on request. The PIRMP is also available on the BWC website which ensures that allows neighbours, members of the community and other stakeholders who have the potential to be affected by any pollution incidents to access the Plan.

2.3. Objectives

As set out in the Guidelines (2019), this PIRMP has been written to:

• Minimise and control the risk of a pollution incident at the facility by requiring identification of risks and the development of planned actions to minimise and manage those risks; and

• Ensure the comprehensive and near immediate communication of a pollution incident to staff at the premises, the Environment Protection Authority (EPA), other relevant authorities specified in the Act (Wingecarribee Shire Council, NSW Ministry of Health, SafeWork NSW, and Fire and Rescue NSW) and stakeholders within the community who may be affected by the impacts of the pollution incident); and

• Ensure that the PIRMP is properly implemented by trained staff, identifying persons responsible for implementing it, and ensuring that the Plan is regularly tested for accuracy, currency and suitability.

2.4. Scope of PIRMP

The PIRMP provides detail regarding the legislative framework, site features, hazard identification, risk assessment, monitoring, testing, reporting and ongoing improvement.

The intended audience for this PIRMP includes the Landfill Operations Manager (LOM), Bowral Waste Centre management and advisors, Bowral Waste Centre staff, and regulatory authorities. Bowral Waste Centre is also obligated to provide a copy of the PIMRP to any person who makes a written request for a copy, however, this is not considered the intended audience.

2.5. Availability of PIRMP

A copy of the PIRMP will be maintained in its written form at the licensed premises so that it is readily available for implementation and to any authorised EPA officer on request. The PIRMP will also be published on the publicly accessible Bowral Waste Centre website (https://www.bowralwastecentre.com.au/faq/).

The Plan will be maintained at the Bowral Waste Centre site office so that it is available to the personnel responsible for its implementation as well as any authority upon request.

The following information is to be made available to the public:

- The procedures for contacting the relevant authorities including the EPA, Wingecarribee Shire Council, NSW Ministry of Health, SafeWork NSW, and Fire and Rescue NSW;
- The procedures for communicating with the community and other relevant stakeholders is described in Table 8.

It is of note that the disclosure of information may be exclusive of any personal information within the meaning of the Privacy and Personal Information Protection Act 1998.

2.6. Site Details

Bowral Waste Centre Pty Ltd owns the land located at 8 Kiama Street, Bowral, NSW, 2576, referred to as the Bowral Waste Centre. The land used for disposal of waste is part Lots 13 & 14 of DP 1022146.
The NSW EPA has issued an Environment Protection Licence (EPL) (No. 13366) for the site which allows for 'Waste Disposal (application to land)' and 'Waste processing (non-thermal treatment)', with conditions.

The Development Consent (DC) (D6195 D4. 566/93) issued by the Wingecarribee Shire Council, also allows for landfilling of the existing quarry void and details the conditions of approval. The DC was originally issued on 23 December 1994, amended on 13 July 1998 and further amended on 21 December 2011, which allowed the (temporary) acceptance of asbestos waste at the landfill.

The most recent modification is dated 29 October 2014, which allowed for the ongoing (permanent) disposal of up to 5000 tonnes of asbestos waste at the site each year.

Further details regarding the site, including topography, hydrology, vegetation, surrounding environment and atmospheric conditions, can be found in the LEMP.

This document consists of two parts:
- The Pollution Incident Response Management Plan (the Plan); and
- The Pollution Incident Response Procedure (the Procedure).

The Plan has been developed to meet the requirements of the POELA Act (2011), the POEO Act (1997), and POEO General Regulation (2009). Bowral Waste Centre (BWC) holds Environment Protection Licence (EPL) No. 13366 under the POEO Act and therefore must meet the requirements under the Act.

The Procedure provides detail on the process to be followed in the event of a pollution incident. The intended audience for this part is the people directly involved in the day-to-day operations of the site, including the LOM, site staff and (where relevant) contractors. All staff, at a minimum, must read and understand the Procedure in Attachment A.

3 Hazard Assessment

3.1. Description and likelihood of hazards

Although Bowral Waste Centre is relatively small, the site accepts a significant volume of waste on an annual basis, thus the potential for hazardous situations still exists and should not be underestimated.
The main hazards that are likely to cause a pollution incident are leachate, hydrocarbons, chemicals and illegal wastes, fire, and flooding. Table 1 below provides a risk assessment for pollution incidents that may occur at the site.

The assessment provides examples of systems or entities that may be impacted by a pollution incident. Examples of systems that are likely to be affected include surface water, ground water, air quality and human health. The systems identified may vary between incidents and the list is by no means exhaustive. It is crucial to continually assess the situation, should a pollution incident occur, to identify any other parties that are being or may be impacted by the incident.

Qualitative categories have been used to assign likely, moderate or unlikely status to likelihood of incidences. A qualitative evaluation has also been utilised to assign a category to the consequences of a pollution incident, this includes major, moderate and minor. The risk rating assigned to each incident type is numerical, with 1 being the lowest and 9 being the highest. The rating is calculated by multiplying the likelihood by the consequence.

The risk ratings are based on uncontrolled likelihood and consequence of each incident and do not consider the proactive controls outlined later in this document. Note that the descriptions for 'incident types' are broad and there are likely to be several sub-categories for each incident (refer to the Procedure for further details).

The sections below provide further detail on the hazards and their (post-control) likelihood. Controls are detailed in Section 2.9. of this Plan (pre-emptive actions).

Hazard	Incident Type	Potential Impact Type(s)	Likelihood (uncontrolled)	Consequence (uncontrolled)	Risk Rating
Leachate	Leachate overflow – confined to the pit	Surface water, ground water, land	Moderate	Moderate	4
	Leachate irrigation run-off	Surface water, ground water, land	Likely	Minor	3
	Leachate – other escape – confined to pit	Surface water, ground water, land	Unlikely	Moderate	2
Hydrocarbons	Leachate – other escape – not confined to pit	Surface water, stormwater, human health	Unlikely	Major	3
	Diesel tank – catastrophic failure or damage	Surface water, land, air quality, human health	Unlikely	Major	3
	Diesel tank – minor leak	Surface water, ground water, land	Unlikely	Minor	1
	Mobile plant/ vehicle fuel line leak or failure	Surface water, ground water, land	Moderate	Moderate	4
	Mobile plant/ vehicle – other minor spill or leak	Surface water, ground water, land	Moderate	Minor	2
	Hydro-carbon storage (container bund) - leak	Surface water, ground water, land	Unlikely	Moderate	2
	Other hydro-carbon incident – threat to surface water	Surface water, land	Moderate	Major	6
	Other hydro-carbon incident – no threat to surface water	Land, air quality	Moderate	Moderate	4
Chemicals	Chemical – minor spill (< 20L)	Surface water, human health	Likely	Minor	3
	Chemical – major spill (≥20L) or immediate threat to surface water	Surface water, land, air quality, human health	Moderate	Major	6

Illegal Waste	Illegal waste – non-hazardous solid prohibited waste	Land, air quality, human health	Moderate	Minor	2
	Illegal waste – hazardous solid prohibited waste	Surface water, ground water, land, air quality, human health	Moderate	Major	6
	Illegal waste – liquid waste	Surface water, ground water, land, human health	Unlikely	Major	3
Flood	Flooding of the site due to overflow of Mittagong Creek	Surface water, land, human health	Unlikely	Major	3
Fire	Waste, buildings or other structures catches fire – extinguishable with equipment on site	Land, surface water, air quality, human health	Unlikely	Major	3
	Waste, buildings or other structures catch fire – unable to be extinguished with equipment available on site	Land, surface water, air quality, human health	Unlikely	Major	3

Table 1: Risk assessment of the types of incidents that may occur at the site.

3.2. Leachate

Description of hazard

The site has a leachate holding dam which is approximately 1.0 megalitre in capacity. The dam is located beside the active waste cell. The dam collects all leachate produced as a result of the decomposition of waste and precipitation falling over the waste catchment area.

The leachate dam is lined with a HDPE geomembrane liner. A pumping system linked to manual controls has been installed to manage the level of leachate in the dam and hence prevent overflow of the leachate into the adjacent stormwater dam.

The leachate is disposed of by evaporation or irrigation onto the active cell whenever possible. Irrigation allows large quantities of leachate to be evaporated during the hot summer period. However, during winter or periods of heavy rain, disposal by evaporation can become difficult and pre-emptive planning to manage freeboard is critical during these times of the year.

Likelihood of incident

The likelihood of leachate being directly discharged from the dam to the environment outside the landfill void is considered low. The direct discharge of leachate would only occur if it is being deliberately pumped off site. The pumps which are installed for the purpose of managing the leachate dam are generally not

used for the off-site discharge of leachate. If there was a leachate overflow event (for example, due to heavy rain) that caused leachate to enter the stormwater dam, there is a risk that diluted leachate could be pumped off-site, if the incident was not managed appropriately.

Regular site inspections checks and maintenance controls that have been developed to maintain appropriate freeboard in the leachate dam and ensure all elements of the transfer and pump system are operational. This includes monthly monitoring of leachate levels via a depth gauge installed in the leachate holding dam. The post-control likelihood of leachate overflowing the leachate dam is considered to be low.

Leachate also has the potential to be transported off the site through 'spray drift' during irrigation. The irrigation of the leachate will only take place over the waste within the landfill cell. Irrigation will only be performed during operating hours so that the process is supervised at all times by the LOM and the waste compactor plant operator.

3.3. Petroleum Products

Description of hazard

Mobile plant present at the site includes a compactor, a dump truck, an excavator, a grader and (from time to time) a dozer. These items of plant are involved in placing and compaction of waste, transferring VENM for use as daily cover and excavating VENM for use as cover material. The other important piece of stationary plant is a transfer pump used for moving water and leachate between the dams on the site.
The most likely hazard associated with the operation of this equipment is a spill from a broken oil or fuel line which would result in the petroleum product being discharged onto land or water.

The facility also has a double-skinned 4,000 litre diesel fuel storage tank which is located adjacent to the VENM stockpile, near the lower quarry site shed. The 'tank within tank' design, as well as the bund, is designed to hold the diesel fuel in the event of a tank breach.

Likelihood of an incident

The likelihood of a significant petroleum spill occurring is low. The largest quantity of petroleum product stored on the site is the diesel fuel stored in a designated area at the bottom of the site. This container is double-skinned and hence any liquid that escapes the inner vessel will be contained in the bund. The tank is not under pressure and therefore the rate of escape will only be moderate, except in the event of a catastrophic failure. The tank is in a location where it is not likely to be accidentally hit or damaged by vehicles moving on site.

The quantity of diesel fuel stored in the fuel tanks of the mobile plant is relatively small and if it were to escape, in most circumstances the incident is not likely to cause any significant harm to the environment or the personnel at the site, if internal response and clean up procedures are followed correctly.

The quantity of unleaded petrol stored at the site amounts to approximately 40 litres and is used in the operation of the fire-fighting pump and other small pumps, as required. Any spill of this liquid would be considered minor and not likely to cause any substantial harm to the environment. Spill kits are available to be used by staff to clean any petrol spills as required.

3.4. Chemicals

Description of hazard

The only chemicals stored at the facility are cleaning products used for cleaning the office and toilet areas. These chemicals are stored in the office and toilet buildings. The quantity of these products is negligible and is not considered a hazard to the environment or personnel.

Likelihood of an incident

The quantity of cleaning liquid stored on site at any time would be no more than 10 litres. The likelihood of there being an escape of cleaning liquid is considered low. If a spill was to occur, the risk of material harm to the environment and the personnel is low.

3.5. Illegal Waste

Description of hazard

It is not uncommon for vehicles disposing of waste at a landfill to be carrying illegal waste (i.e. waste not permitted to be accepted at the facility). This type of waste can only be described as material that cannot be accepted at the licensed facility and therefore must be 'turned away'.

The illegal material could be a full vehicle load, or it could consist of illegal waste mixed with permitted waste. In either instance, the entire load of waste must be treated as unsuitable and managed appropriately. Where possible and at the discretion of the LOM, the illegal material must be separated from the approved material and taken off site. If it is not possible to separate the illegal material, the whole load must be removed from the premises.

Likelihood of incident

There will be an ongoing risk that clients and public customers will attempt to bring illegal waste to the site. It is the responsibility of the LOM and site operators to prevent, wherever possible, such material entering to the site. It is also the responsibility of the truck driver to notify the weighbridge of the type of waste they are transporting.

At the tipping face, an additional control measure is for the machine/compactor operator and other staff to inspect the waste to ensure it does not contain materials that cannot be accepted. These controls that are currently in place ensure that there is a high chance any waste that is not permitted on site will be detected by staff. The residual risk that illegal waste will enter the site is considered to be low.

3.6. Flooding due to overflow of Mittagong Creek

Description of hazard

Part of the site is identified in local planning documentation (*Wingecarribee Shire Local Environmental Plan 2010*) as being a 'high risk flood precinct'. This risk is mainly due to the potential for the Mittagong River (adjacent to the western boundary of the site) to overflow. In a 100 year ARI flood event (or larger event), the Mittagong River is likely to overflow into the quarry void and then run into the landfill cell. The void has limited capacity to store this additional water before it will cause the leachate dam to overflow/become submerged.

Likelihood of incident

100 year ARI events have a 1% chance of occurring in any given year. Therefore, the risk is low, but the consequence of such an event would be major. There is no risk of uncontrolled escape of leachate-contaminated flood waters leaving the site in an uncontrolled manner (due to the volume of the void).

However, the overflow of leachate and large volume of contaminated water would be a significant management challenge, as disposal options for a large quantity of water in extreme wet conditions are very limited. These events must be dealt with via preparation/mitigation to the extent possible. If this event does occur a response should be developed on a case-by-case basis, in close consultation with the NSW EPA.

3.7. Inventory of pollutants

The identification, handling, storage and disposal of chemicals and hazardous substances at BWC is guided by a series of Material Safety Data Sheets (MSDS). A register of all MSDS is kept in the Site Office and is readily accessible for all personnel with potential exposure to any such substances. The use of fuels and chemicals at BWC is limited to those summarised in Table 2.

Pollutant Type/Substance	Solid, Liquid, Gas or Powder	Quantity	Location	Type of Containment
Leachate	Liquid	Varies; approximately 1ML	Adjacent to landfilled area	Engineered leachate dam
Diesel	Liquid	4KL total capacity	Top NE corner of site	Bunded Tank
Unleaded Petrol	Liquid	40L (2 x 20L)	Top NE corner of site	Bunded storage
Household cleaners	Liquid or powder	< 5L	Site Office	Domestic Packaging
C&D Waste	Solid	Varies	Landfilled area	Capping with VENM
Asbestos	Solid	Varies; licensed to accept 5000 tonnes annually	Landfilled area	Capping with VENM

Table 2. Safety Equipment locations and quantity

3.8. Safety equipment

A summary of the safety equipment and devices used at Bowral Waste Centre to minimise risks to human and environmental health, and to contain or control a pollution incident is presented in Table 3. Regular inspections will be scheduled for these items, which will be serviced and maintained in accordance with the relevant standards and manufacturer's instructions. Regular training will also be carried out to ensure that all employees can operate the equipment.

Equipment	Location	Quantity
Spill kit	Adjacent to diesel fuel tank and water tank	2

Asbestos containment materials - VENM	Stockpiled on the active cell	2 weeks worth
General Personal Protective Equipment (PPE) supplies	Site office	Various
Fire Extinguisher	Site office	1
	Vehicles and pumps	9
Fire Hose, Pump and Tank	Adjacent to the weighbridge	2
Fire Blanket	Site office	1
First Aid Kit	Site office	1
Traffic control cones, barrier tape, signage	Adjacent to the weighbridge	Various

Table 3. Inventory of safety equipment on site

3.9. Pre-emptive actions to be taken

The most effective method of preventing incidents occurring is to have in place an effective system of inspections and maintenance. The LOM will ensure that site inspections are carried out regularly and plant and equipment is inspected by the operators prior to the commencement of work. The checklists and inspection procedures developed for the site include:

- Regular site inspections;
- Vehicle and plant maintenance records;
- Weighbridge records;
- Excluded waste reports; and
- Environmental audits.

The information provided below outlines the pre-emptive actions to be taken in relation to each category of hazard.

3.9.1. Leachate

The leachate dam is fitted with a pump to maintain the freeboard of the leachate and prevent overflows. If there is an imminent risk of overflow, the LOM will take necessary steps to ensure leachate is removed by a competent liquid waste contractor.

Regular inspections are carried out by the LOM to check for any faults in the pipelines and the pump is used on a regular basis, to ensure it is operating properly. The leachate pipes are located on the waste side of the dam thereby ensuring that any leaks will drain back into the dam or the waste where it is captured.

If the LOM finds any leaking pipes, they coordinates maintenance personnel to carry out the repairs. In the event that the pump or controls are found to be faulty, a defect report is prepared, and action is taken to repair the fault.

3.9.2. Diesel fuel

Diesel fuel is stored in both the storage tank and the various pieces of operational plant. Spills of diesel fuel could occur either during the daily operation or overnight while the plant is parked-up.

The main site diesel tank is inspected daily as part of the LOM's operational responsibilities. If the tank has an internal leak, the liquid will be collected in the bund area and pumped out by a liquid waste contractor. If the tank is determined to be faulty or damaged in any way, the fuel will be pumped from the tank and the tank removed for repair or replacement.

The plant and equipment are checked daily by the operators as part of their daily start-up and inspection routine. All plant operators are trained and expected to inspect their plant and equipment before they commence work.

Should an operator find a fault with the any part on the plant, including a leaking fuel line, it is reported to the LOM to be rectified. A leaking fuel line or other issue that may result in a hydrocarbon spill is either repaired, or replaced, as soon as practicable.

Any diesel fuel that has spilled is isolated and cleaned up. Spill kits are located at the plant parking site and in the shed adjacent to the landfill.

3.9.3. Oil spill

Oil spills may occur due to faulty or broken hydraulic lines on mobile plant and equipment.
The plant and equipment are checked daily by the operators as part of their daily start-up and inspection routine. All plant operators are trained to check and inspect their plant and equipment before they commence work.

Any oil spill will be isolated and cleaned up using the spill kits. In the event the operator finds a faulty or broken hydraulic line, the machinery is parked up for repair, the LOM is notified, and the fault is addressed as soon as practicable.

3.9.4. Petrol fuel spill

All petrol fuel is stored in approved fuel containers, located in a storage cabinet near the site office. The facility holds only a small quantity (approximately 40 litres) of unleaded petrol fuel for use in fire-fighting and other small infrequently used pumps.

Spills are only likely to occur when filling small pumps. To minimise the chance of a spill, funnels are used during the filling process. Once the pump has been filled the cap on the fuel container is tightly closed and the container returned to its storage area.

3.9.5. Illegal waste

All waste entering the site must comply with the conditions set out in the Environment Protection Licence. The weighbridge operator asks the truck driver for information concerning the waste being delivered to the site. The weighbridge operator records all loads of material entering the site, including waste and other operational materials. The material is again inspected by the plant operator and landfill supervisor when the material or waste is unloaded.

If illegal waste is found on the site, it is immediately isolated, and action will be immediately taken to have it removed from the site and taken to an approved landfill. If the illegal waste is detected at the weighbridge, the truck is rejected from the site but not before an Excluded Waste Report is completed.

3.9.6. Flooding

It is not possible to take action that will prevent or minimise the impact of a flood event – a flood may occur due to many factors beyond the control of the Bowral Waste Centre. The pre-emptive actions to be taken in the lead up to a potential flood event are focused on preparing the site and improving preparedness and effectiveness of the response to flood events. The LOM and the Environment and Community Advisor will regularly monitor weather forecasts and warnings, to determine when a flood event may occur. If one is identified, the following actions will be taken:

Irrigation or pump-out (disposal) of leachate, to maximise capacity of the leachate dams;

• Discharge the stormwater collection dam, via the licensed discharge point, to maximise freeboard. This should only occur when water quality is known to meet the relevant criteria on the site EPA licence;

• Ensure adequate water collection bottles are available in the site office to collect samples daily during discharge;

• Consider engineering controls such as building bund walls/barriers around the active cell and leachate dams, to further isolate them from stormwater.

3.10. Training requirements

The objectives of the training program that is to complement this plan is to ensure that all site staff are aware of the contents of the PIRMP, such that they understand environmental and safety issues in the workplace and are aware of their responsibilities in the event of a pollution incident. Information is to be disseminated through site inductions and ongoing training.

The LOM is responsible for the administration of materials and maintenance of records for all inductions and ongoing training. At a minimum, records of training will contain details of who facilitated and received the training, when the training was undertaken, and what the training involved. Where applicable, test scores and simulation outcomes should also be carefully noted.

Contractors and visitors to the site will also be subject to inductions and ongoing training as deemed appropriate by the LOM. Details and copies of any relevant licenses, certificates and/or qualifications held by employees and contractors will also be recorded and maintained by the LOM. It is the responsibility of all employees and contractors working on the site to work in a safe manner and to look after the interests of their fellow workers.

Inductions and ongoing training requirements should be routinely reviewed and revised as deemed appropriate by the LOM. Throughout this process, considerations should be made for but not limited to changes in procedures and regulations, as well as any errors or deficiencies in job performance and in reporting.

Desktop simulation and pollution incident drill testing procedures, as required under Section 98(E) of the POEO Regulation and outlined in Section 4, provide an interactive training experience for employees. Scenarios are designed to be reflective of an incident that may be encountered on site, however, are implemented in a controlled and hazard free environment.
Further information regarding training can be found in the LEMP.

3.11. Minimising harm to persons on the premises

The best and most effective method for minimising harm to all persons on the premises, including employees, visitors and subcontractors, is through education, training and provision of appropriate

resources to control hazards. All persons working on the site, employees and subcontractors, and persons visiting the premises, are required to attend an induction programme. All employees and regular subcontractors must attend the regular toolbox meetings, where they are openly encouraged to raise issues of concern.

Minimising harm also comes through development and training programmes which employees are encouraged to commit to. Training often takes the form of on-the-job training of employees in the use of plant and equipment as well as reinforcement of the various management plans and systems in place.
The Bowral Waste Centre only employs people who are experienced in landfill operations and have qualifications for the plant they operate. While training and development are essential, appropriate signage is also important. All landfills operate heavy machinery and clear directional and safety signs are important in the daily operation of the site.

3.12. Maps

It is a requirement of the PIRMP to contain detailed and up to date maps and diagrams which assist proper planning and emergency response.

The PIRMP must include a map (or set of maps) showing the:

- Location of the premises	See Figure 1a: Site layout plan See Figure 1b: Site Location and Proximity to Sensitive Receivers
- Surrounding area likely to be affected by a pollution incident	See Figure 1b: Site Location and Proximity to Sensitive Receivers
- Location of potential pollutants on the premises (including underground tanks)	See Appendix A – Bulk fuels and combustibles location map and; Appendix B – Emergency evacuation maps detailing the location of safety equipment, pollution control and pollution response equipment on the premises
- Location of any stormwater drains on the premises	See Figure 2: Site Stormwater Directional Flows

Figure 1a – Site layout plan

Figure 1b - Site Location and Proximity to Sensitive Receivers

Figure 2: Site Stormwater Directional Flows

4 Actions to be taken during and after an incident

4.1. During an incident

In the event of a pollution incident, the LOM should refer to the flow chart within the Pollution Incident Response Procedure (the Procedure). The Procedure contains contact details for all relevant authorities and other stakeholders. Although the Procedure contains detailed information on how to respond in the event of a pollution incident, it is impossible to capture every type of scenario that has the potential to arise. The LOM is expected to have the capacity to make an assessment of any incident that occurs to identify which incident response procedure is best aligned with the one at hand and respond accordingly.

There is the possibility that variations to the recommended response detailed in the summary of critical information may be necessary. Any need for variations to the response detailed in the Procedure is carried out at the discretion of the LOM and/or Company Director. The Procedure is provided as Attachment A to this Plan. This section provides a high-level overview of the procedure.

Any employee or contractor who suspects or confirms that a pollution incident has or is about to occur, must immediately notify the relevant supervisor or the LOM. If the employee is trained to respond to the incident, they may do so, provided that someone else is on hand to raise the alarm. Supervisors should notify the LOM of the incident immediately.

The LOM must notify the Company Director if there is a risk of material harm to the environment, if there is an immediate risk to human health or property (on or off-site) or risk to environmental amenity (off-site). Section 148 of the POEO Act states relevant regulator(s) and management authorities must also be notified if there is a risk of material harm to the environment. Stakeholders may also need to be notified of an incident; however, this is at the discretion of the Company Director (unless it is required by the regulator or relevant management authority). Information that should be provided to the EPA, or other regulators, includes:

• The time, date, location, nature and duration of the event;

• Location of the place(s) where pollution is occurring or is likely to occur;

• Nature, quantity and concentration of any pollutants involved;

• Suspected cause of the incident;

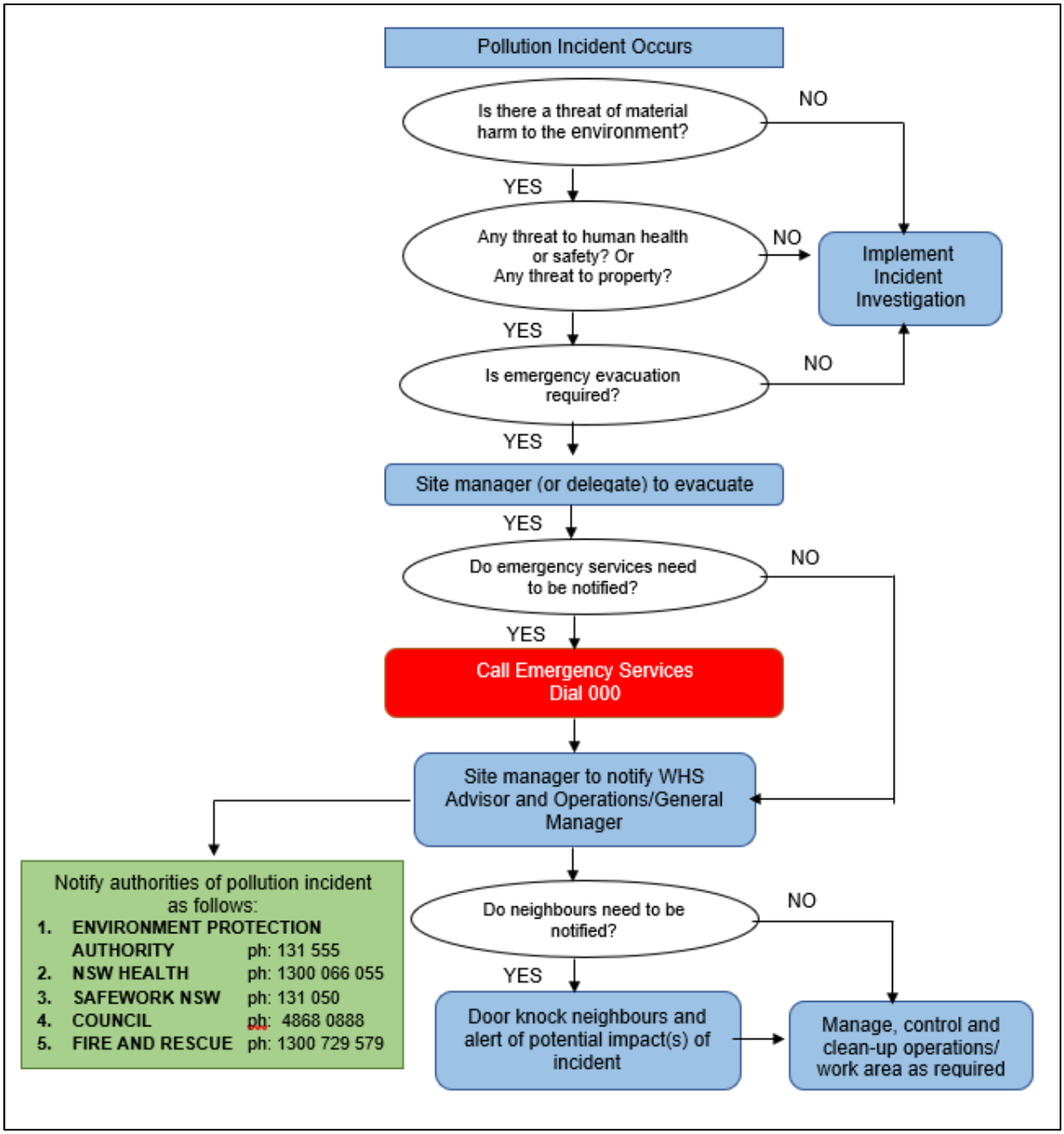
• Actions taken to control the situation;

• Actions taken to mitigate any environmental harm and/or environmental nuisance caused by the event; and

• Proposed action(s) to prevent a recurrence of the event;

• Any other information that may be requested by regulatory authorities

4.2 Initial Response Procedure Flowchart



4.3. Post-incident

4.3.1. Internal reporting

A 'post-incident report' is to be completed by all staff involved in a pollution incident who are then required to forward the completed report to the LOM prior to leaving the site that day. Employees involved in a

pollution incident are not permitted to leave the site unless they have prior approval to do so by Bowral Waste Centre management or a representative of the Emergency Services (if in attendance).
The LOM is responsible for ensuring that all required information has been collected, and that all individuals involved have completed a report. The LOM must also complete a separate 'post-incident report', before forwarding these reports to the Company Director (except in the event of a 'non-notifiable incident'). A hard and soft copy each post-incident report is to be retained.

4.3.2. External reporting

The LOM will prepare a report that satisfies regulator reporting requirements in a timely manner following a regulator-notifiable incident or stakeholder-notifiable incident. Once this report has been reviewed and approved by the Company Director, it is to be forwarded to the EPA, other relevant regulators and management authorities on behalf of the company. This is to occur within the timeframes set out by the relevant regulators. Any follow up information requested by the regulator(s) is to be authorised by the Company Director and provided in a timely manner.

4.3.3. Review and update the PIRMP

Following any incident (other than a non-notifiable incident), the PIRMP must be tested (and revised if necessary), as per Regulation 98E(2b) of the POEO Regulation. Testing of a PIRMP following an incident must assess, in the light of that incident, whether the information included in the Plan is accurate, up to date and whether the Plan is still capable of being implemented in a workable and effective manner. If it is determined that any of this is 'no', then the PIRMP must be revised to address any gaps or deficiencies identified.

5 Responsibilities and contact information

The following section presents a brief outline of key positions and responsibilities associated with implementation of the PIRMP at Bowral Waste Centre.

The LOM is responsible for the overall management of the site. Additional responsibilities of the LOM include environmental and safety compliance, the implementation, testing, training and reviewing the effectiveness of the PIRMP. This is achieved with support from advisory managers, employees and regular contractors. The LOM will ensure that all employees read and understand the Procedure and have been adequately inducted and trained. The LOM will also ensure all relevant persons are re-trained if the PIRMP is altered in any substantial way.

Employees, contractors and visitors inducted to the site accept a duty of care and the responsibility to ensure that any accidents, incidents, and near misses are reported through the correct channels. During an emergency or incident, they are obligated to follow procedures and authorised instruction, provided this does not place them at any additional risk. As such, they must commit to understanding the PIRMP and emergency plans.

Regulatory notification of any pollution incident causing or threatening to cause material harm is required under Section 140 of the POEO Act. The notification protocol described below should be enacted as soon as practicable after any person on the premises becomes aware of the incident.

Firstly, call '000' if the incident presents an immediate threat to human health or property. Fire and Rescue NSW, the NSW Police and the NSW Ambulance Service are the first responders. Following this, or if the

incident does not require any of these agencies to control or contain the incident, notify the relevant authorities as shown in Table 4.

Authority	Description	Contact information
NSW Environment Protection Authority (EPA)	Main environmental regulator for sites with an EPL	131 555
Wingecarribee Shire Council	Local government environmental regulator	02 4868 0888
NSW Ministry of Health	Illawarra Public Health Unit	1300 066 055
SafeWork NSW	WHS authority	13 10 50
Fire and Rescue NSW	Emergency services – fire, hazardous materials etc.	1300 729 579 (or 000)
Landfill Operations Manager	Any pollution incident or potential pollution incident or emergency	0498 027 727
Emergency services (Ambulance, Fire, Police)	Time-critical life or property threatening emergencies	000 or 112 from mobile
State Emergency Service	Assistance required in recovering from storm events	132 500
Bowral Street Medical Practice	Treatment of minor injuries	02 4861 3183
Bowral Hospital	Serious (non-life-threatening) injuries	02 4861 0200
Bowral Fire Station	Assistance with fire or pollution incident response	02 4862 1446
Southern Highlands Police Station	To report non time-critical crime, such as vandalism or illegal dumping	02 4868 1222
Telstra Call Connect (Telstra phones only)	For connection to key contacts and phone numbers	1234
Sydney Water	Pollution of drinking water	13 20 90

Table 4. Contacts

6 PIRMP Maintenance and Review

6.1. Testing the PIRMP

As per Regulation 98(E) of the POEO Regulation, a PIRMP must be tested routinely every 12 months. The testing must be carried out in a manner as to *"ensure that the information included in the plan is accurate and up to date and that the plan is capable of being implemented in a workable and effective manner"*. The PIRMP may be tested in a variety of ways, including desktop simulation, and practical exercises or drills. Testing must cover all aspects of the Plan, including the effectiveness of training. Plans must also be tested within one month of any pollution incident occurring in the course of an activity and to which a licence relates. This post-incident test must assess whether the information contained in the Plan is accurate and up to date and the Plan is still capable of being implemented in a workable and effective manner.

Plans must include all relevant details in regard to:

• the manner in which the PIRMP is to be tested and maintained;

• the dates on which they have been tested and the name of the staff members who carried out the testing;

• the dates on which they are updated or revised.

6.2. Testing procedures

Testing of the PIRMP may occur as a desktop simulation or a pollution incident drill. Once the test is complete, it will be followed by a PIRMP review. Any issues identified during the test will be rectified during the subsequent revision of the Plan. The decision on which testing procedure to use is at the discretion of the LOM. The decision will take into account prior performance, the occurrence of any incidents in the preceding period, substantial changes in regulatory frameworks and other relevant matters.

6.2.1. Desktop simulation

Responsibility for implementation: Environment and Community advisor and LOM.

Procedure: The procedure for a desktop simulation is as follows:

i. The LOM assembles all relevant personnel in the office;

ii. The LOM identifies whether the incident is a 'Regulator notifiable incident' or a 'stakeholder-notifiable incident'. (i.e. if risk of material harm to the environment exists) and notes whether there is also a risk to human health and safety (i.e. sediment-laden water overflow, leachate escape to soil/groundwater or illegal waste dumping incident that contains hazardous vapours). The individual who identifies the incident within the simulation is the employee;

iii. Using the procedures outlined in the PIRMP, the persons present move through the steps in the process while documenting what actions are taken at each step;

iv. At the end of the process, the persons present discuss the incident response and identify any weaknesses or deficiencies in the PIRMP process that they identified throughout the simulation;

v. The LOM or their delegate is to document the desktop simulation, minute the debrief discussion and raise remedial actions for any deficiencies identified in the process.

6.2.2. Pollution incident drill

Responsibility for implementation: Environment and Community advisor and LOM.

Procedure: The procedure for a pollution incident drill is as follows:

i. The LOM identifies whether the incident is a 'Regulator notifiable incident' or a 'stakeholder-notifiable incident'. (i.e. if risk of material harm to the environment exists) and notes whether there is also a risk to human health and safety (i.e. sediment-laden water overflow, leachate escape to soil/groundwater or illegal waste dumping incident that contains hazardous vapours). A different scenario will be used to the desktop simulation;

ii. The LOM then designates an employee to commence the simulation at a time which is not disclosed to other personnel on a specified date (the LOM may suggest an approximate time, but the commencement of the drill is at the discretion of the nominated employee);

iii. The employee commences the drill by notifying their supervisor of the (pre-determined) incident;

iv. The supervisor must then commence the process outlined in the PIRMP that is relevant to the particular incident (including identifying the immediate response required);

v. The LOM is to contact the Company Director. The Company Director will be notified that they have been contacted for the purposes of a drill. No actual notification of external parties is required, although it should be documented which external parties *would* be notified in a real pollution incident scenario;

vi. All parties involved in the drill will meet following the conclusion of the drill. The parties are to debrief and discuss the drill performed. In the drill, the processes and any deficiencies should be identified and evaluated by the participants. This should also include an evaluation of how prepared and well-equipped persons were to immediately respond to the incident, such as whether there was appropriate spill control equipment available if the drill involved a spill incident;

vii. The LOM or their delegate is to document the drill, minute the debrief discussion and raise remedial actions for any deficiencies identified in the process.

6.2.3. PIRMP Review

Responsibility for implementation: Environment and Community advisor and LOM.

Procedure: A basic review of the PIRMP will involve the LOM, or relevant delegate (i.e. E&C Advisor) conducting a review of all information in the Plan, paying particular attention to the following elements:

i Contact details;

ii Regulatory/legislative context;

iii Relevant hazards;

iv Hazard inventory;

v Site safety equipment;

vi Training provisions (training records should also be inspected to gauge compliance); and

vii Site details (including maps and other diagrams).

Following the review of the PIRMP, the document is to be revised and re-issued following the review. The LOM must ensure that all relevant persons are re-trained in the PIRMP following the review, with a focus given to sections that have been changed.

7 Notification Details

7.1. Notification of Emergency Services

The following is a list of emergency services and senior management staff who may need to be contacted in the event of an incident.

Contact	In case of...	Number
Landfill Operations Manager	Any pollution incident or potential pollution incident or emergency	0498 027 727

Emergency services (Ambulance, Fire, Police)	Time-critical life or property threatening emergencies only.	000 or 112 from mobile
State Emergency Service	Assistance recovering from storm events	132 500
Bowral Medical Centre	Local medical clinic for minor injuries	02 4861 1666
Bowral Hospital	Local hospital for serious (non-life threatening) injuries	02 4861 0200
Bowral Fire Station	Assistance with fire or pollution incident response	02 4862 1446
Bowral Police Station	To report non time-critical crime, such as vandalism or illegal dumping	02 4862 9211
Telstra Call Connect (Telstra phones only)	For connection to key contacts and phone numbers	1234

Table 7. Emergency services and senior management staff

7.2. Communication with stakeholders, regulators and other relevant authorities

There are several regulators and management authorities who may need to notified in the event of a regulator-notifiable incident. Key regulators and management authorities are shown below in Table 7.
Table 8 shows a list of stakeholders that may require notification during a pollution incident. Ongoing consultation with all stakeholders in the development can help to ensure that problems are identified and addressed in a timely fashion. For external stakeholders, this can avoid misunderstandings which could expose the company to litigation or result in negative publicity. For internal stakeholders, this can increase productivity and reduce the incidence and severity of injuries. Ongoing consultation methods which are utilised include site 'toolbox' talks, training, and personal phone calls where relevant. When it is necessary, neighbours and external stakeholders will be promptly notified of a pollution incident. The extent of notification will be at the discretion of the Company Director, unless otherwise directed by a relevant regulator or management authority.

Appendix A – Bulk Fuels and combustibles location map

Appendix B – Emergency Evacuation Maps