



**MIDCOAST**  
council

# **Pollution Incident Response Management Plan**



**Bulahdelah Waste  
Management Centre**

# Pollution Incident Response Management Plan

## Bulahdelah Waste Management Centre

Revision History				
No	Issue Date	Revision Notes	Prepared By	Approved By
1	23 June 2015	Additional SOP	Gayle Cusack Mick Cockeram	Amy McKey
2	13 April 2017	Amended Doc	Gayle Cusack	Amy Hill
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4	7 <sup>th</sup> July 2020	Updated Doc	David Rees	Garth Yates
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7	July 2023	Contacts	Duncan Russ	

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## Contents

<b>1. Administration</b> .....	<b>1</b>
1.1 PURPOSE.....	1
1.2 OBJECTIVE AND SCOPE OF PLAN.....	1
1.3 LEGISLATIVE CONTEXT.....	2
1.4 KEY TERMS AND MEANINGS.....	2
1.5 FACILITY COVERED BY THIS PLAN.....	3
1.6 PLAN DISTRIBUTION.....	3
1.7 PLAN REVIEW.....	4
1.8 PLAN TRAINING.....	4
1.9 PLAN DRILLS AND EXERCISES.....	5
1.10 FORM OF PLAN.....	5
1.11 RELATIONSHIP WITH OTHER EMERGENCY AND INCIDENT RESPONSE PLANS.....	6
<b>2. Facility Description</b> .....	<b>6</b>
2.1 LOCATION.....	6
2.2 FACILITY DESCRIPTION.....	6
<b>3. Pollution Incident Prevention, Recognition And Preparedness</b> .....	<b>8</b>
3.1 PREVENTION AS AN INCIDENT RESPONSE.....	8
3.2 INVENTORY OF POTENTIAL POLLUTANTS.....	9
3.3 NATURE AND LIKELIHOOD OF POLLUTION INCIDENTS.....	9
3.4 INCIDENT PREPAREDNESS.....	1
3.4.1 Response Equipment and Features.....	1
3.4.1 Communication System.....	2
3.4.2 Security.....	2
3.4.3 First Aid Equipment.....	2
3.4.4 Signs and Labels.....	2
3.4.5 Funding Arrangements and Support.....	2
<b>4. Pollution Incident Control and Response</b> .....	<b>3</b>
4.1 KEY FACILITY INCIDENT MANAGEMENT CONTACT DETAILS.....	3
4.2 KEY INCIDENT CONTACT DETAILS.....	4
4.3 INCIDENT NOTIFICATION AND COMMUNICATION.....	5
4.4 FACILITY EVACUATION.....	1
<b>5. Pollution Incident Response Procedures</b> .....	<b>3</b>
<b>6. Post Pollution Incident Activities</b> .....	<b>3</b>
6.1 RECOVERY OPERATIONS.....	3
6.2 INCIDENT INVESTIGATION.....	3
6.3 DOCUMENTATION.....	4
6.4 INCIDENT DAMAGE ASSESSMENT.....	4
6.5 INCIDENT DEBRIEFING.....	5
6.6 INCIDENT CRITIQUE.....	5
6.7 MEDIA MANAGEMENT.....	5

## List of Appendices

<b>Appendix 1 – Notification of Change Form</b>
<b>Appendix 2 – Staff Training/Competency Summary and SOP</b>
<b>Appendix 3 – Pollution Incident Exercise Evaluation Form</b>
<b>Appendix 4 – Incident Notification Report Form</b>
<b>Appendix 5 – EPA Notification Protocol</b>
<b>Appendix 6 – Leachate Discharge SOP</b>
<b>Appendix 7 – Leachate System Maintenance and Management SOP</b>
<b>Appendix 8 – Groundwater Monitoring SOP</b>
<b>Appendix 9 –Surface Water Quality Monitoring SOP</b>
<b>Appendix 10 – Operation and Maintenance of Sediment Control System SOP</b>
<b>Appendix 11 – Used Tyre Stockpile Management SOP</b>
<b>Appendix 12 –Green Waste Stockpile Management SOP</b>
<b>Appendix 13 –Fire at the Tip Face SOP</b>
<b>Appendix 14 – Chemical Spill Response SOP</b>
<b>Appendix 15 – Storage and Handling of Chemicals SOP</b>
<b>Appendix 16 – Inspection of Loads SOP</b>
<b>Appendix 17 – Clean up of Oil/Fuel Spill SOP</b>
<b>Appendix 18 – Dust Management SOP</b>
<b>Appendix 19 – Odour Management SOP</b>
<b>Appendix 20 – Covering of Waste/Litter Control SOP</b>
<b>Appendix 21 – Facility Evacuation SOP</b>
<b>Appendix 22 – Incident Reporting SOP</b>
<b>Appendix 23 – EMP Checklist</b>
<b>Appendix 24 – Site Services and Infrastructure Plan</b>
<b>Appendix 25 - Clean up of Orphaned Asbestos and Toxic Chemicals SOP</b>

# 1. ADMINISTRATION

## 1.1 PURPOSE

Industry is now required to report pollution incidents immediately to the EPA, NSW Health, Fire and Rescue NSW, WorkCover NSW and the local council.

This Pollution Incident Response Management Plan has been prepared to comply with the new requirements introduced by the *Protection of the Environment Legislation Amendment Act 2011* (POELA Act) that requires the preparation and implementation of a Pollution Incident Response Management Plan.

The purpose of this Pollution Incident Response Management Plan is to assist Council staff and contractors at the **Bulahdelah Waste Management Centre** to identify the potential risk of a pollution incident occurring, introduce measures to mitigate that risk and to give direction in making quality decisions should a pollution incident occur. This plan contains guidance in determining the appropriate actions to take to 'prevent material harm' to the environment.

## 1.2 OBJECTIVE AND SCOPE OF PLAN

It is **Midcoast Council's** intent to prevent all foreseeable pollution incidents that might impact on the environment and the safety of employees, contractors and facility users through the implementation of standard operational procedures, undertaking routine site activity inspections, regular training of personnel in the implementation of operational procedures and through emphasizing and supporting proactive incident prevention reporting.

However, it is recognized that pollution incidents are not totally preventable. Therefore, this plan has been developed to achieve the following objectives:

The objectives of this plan are to:

- reduce the likelihood of a pollution incident occurring at the facility through identification of risks and the development of planned actions to minimize and manage those risks
- ensure comprehensive and timely communication about a pollution incident to all staff at the premises, the Environment Protection Authority (EPA), other relevant authorities specified in the Act (such as NSW Ministry of Health, WorkCover NSW, and Fire and Rescue NSW) and people outside the facility who may be affected by the impacts of the pollution incident
- ensure that the Plan 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
- provide guidance on how to respond to an environmental pollution incident and how to record and report such an event

This Plan contains guidance in determining the appropriate actions to take to prevent a pollution incident, injury or property damage and how to respond should a pollution incident occur. The Plan also includes provisions for record keeping, testing, reporting and document revision.

### **1.3 LEGISLATIVE CONTEXT**

The specific requirements for pollution incident response management plans are set out in Part 5.7A of the POEO Act and the Protection of the Environment Operations (General) Regulation 2009 (POEO (G) Regulation 2). In summary, this provision requires the following:

- All holders of environment protection licences must prepare a pollution incident response management plan (section 153A, POEO Act).
- The plan must include the information detailed in the POEO Act (section 153C) and be in the form required by the POEO (G) Regulation (clause 98B).
- Licensees must keep the Plan at the premises to which the Environment Protection Licence relates or, in the case of trackable waste transporters and mobile plant, where the relevant activity takes place (section 153D, POEO Act).
- Licensees must test the Plan in accordance with the POEO (G) Regulation (clause 98E).
- If a pollution incident occurs in the course of an activity so that material harm to the environment is caused or threatened, licensees must immediately implement the Plan (section 153F, POEO Act).

### **1.4 KEY TERMS AND MEANINGS**

An understanding and appreciation of the following key terms is considered integral to the successful implementation of this Plan

#### **1.4.1 Pollution Incident**

The definition of a pollution incident is:

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



## 1.4.2 Material Harm to the Environment

A pollution incident is required to be notified if there is a 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'.*

## 1.4.3 Immediately

Industry is now required to report pollution incidents *immediately* to the EPA, NSW Health, Fire and Rescue NSW, WorkCover NSW and the local council. 'Immediately' has its ordinary dictionary meaning of promptly and without delay. These strengthened provisions will ensure that pollution incidents are reported directly to the relevant response agencies so they will have direct access to the information they need to manage and deal with the incident in a faster time.

## 1.5 FACILITY COVERED BY THIS PLAN

The operation of the **Team Leader Waste Operations** is covered by this plan.

## 1.6 PLAN DISTRIBUTION

A copy of this Plan is to be kept at the premises to which the relevant Environmental Protection Licence (EPL) relates, or where the relevant activity takes place, so that it is readily available to those responsible for its implementation and to an authorised officer on request.

In addition to **Midcoast Council** receiving the master copy, a duplicate copy of this Plan will be given to **Resource Recovery**, the principal site contractor at the **Team Leader Waste Operations** for retention within the site control shed.

The master copy of this plan is to be maintained by the **Team Leader Waste Operations** who will be responsible for revisions of the Plan and for the distribution of revised copies.

## 1.7 PLAN REVIEW

The Pollution Incident Response Management Plan is to be reviewed annually by the **Team Leader Waste Operations, Midcoast Council** in conjunction with relevant Council staff and the principal site contractor.

When revisions are made to the Plan, the revised document will be re-distributed and redundant copies collected and discarded. The date of issue and revision number is to be recorded on the title page of the document for future reference.

As part of the revision process, a Notification of Change Form, refer to **Appendix No 1**, will be provided which must be signed by each responsible party indicating that the party has received a copy of the changes and that the copy of the Plan assigned to that party has been updated. This form is to then be retained on file by the **Team Leader Waste Operations, Midcoast Council**.

## PLAN TRAINING

To ensure that this plan is properly followed in the event of a pollution incident, training programs shall be provided to relevant **Council employees**.

The objectives of the training program shall be as follows:

- a) To ensure that **Council employees** are knowledgeable of their roles and responsibilities concerning this Plan.*
- b) To ensure that **Council employees** are knowledgeable of the Plan's procedures to affect a safe and appropriate response to pollution incidents.*

**Council employees** will receive training in the plan appropriate to the level of their expected involvement.

The following is the general training program which is to be implemented:

### 1.8.1 Training Frequency

**Council employees** will receive training during initial employment orientation and refresher training at least annually. When employees change areas in which they work or responsibilities for the work they undertake, they will receive from Council appropriate training in their responsibilities and actions as required by the Plan for their new work area/new responsibilities.

Additional training will also be provided to employees whenever the Plan is changed.



### **1.8.2 Training Level**

All **Council employees** will receive training in the general Plan procedures and specific procedures related to the Plan.

Training shall cover routine pre-emptive inspections, incident discovery and management, (standard operating procedures), notifications, incident response and best practice facility management.

### **1.8.3 Supervisor Training**

The **Team Leader Waste Operations, Midcoast Council**, will receive additional training, beyond that received by Council employees and site personnel, dealing with actions that are necessary to provide for the safety of employees and facility users, the protection of facility assets and the management of pollution incidents.

### **1.8.4 Training Competencies**

Details of the training competencies achieved by Council employees and contractor's staff relevant to this Plan are provided in **Appendix 2** of this Plan.

## **1.8 PLAN DRILLS AND EXERCISES**

To ensure that this Plan will meet current conditions and that all involved individuals will respond appropriately, the Plan will be tested on an annual basis. The testing will include at least the following;

- a) Reaction and accountability of facility personnel; and
- b) Adherence to plan procedures.

All drills and exercises of the Plan will be documented, indicating the results of the exercise and any issues that were encountered, along with recommendations for Plan modifications.

The **Team Leader Waste Operations, Midcoast Council** will complete a Pollution Incident Action Plan Exercise Evaluation Form, refer to **Appendix No 3**, and maintain copies for review.

## **1.9 FORM OF PLAN**

As the purpose of this Plan is to mitigate the likelihood and to improve the management of pollution incidents and facilitate better coordination with the relevant response agencies, this Plan must be provided in written form, and be available at the subject premises and able to be provided to an authorised EPA officer on request. While this Plan can be prepared and stored in other forms, a printed copy must be available to an authorised EPA officer and to any person who is responsible for implementing the plan.

## 1.10 RELATIONSHIP WITH OTHER EMERGENCY AND INCIDENT RESPONSE PLANS

This Plan is meant as a stand alone document, the implementation of which is required to be undertaken to mitigate risk of a pollution incident but also to respond to any pollution incident where there is a potential of 'material harm to the environment'.

## 2. FACILITY DESCRIPTION

### 2.1 LOCATION

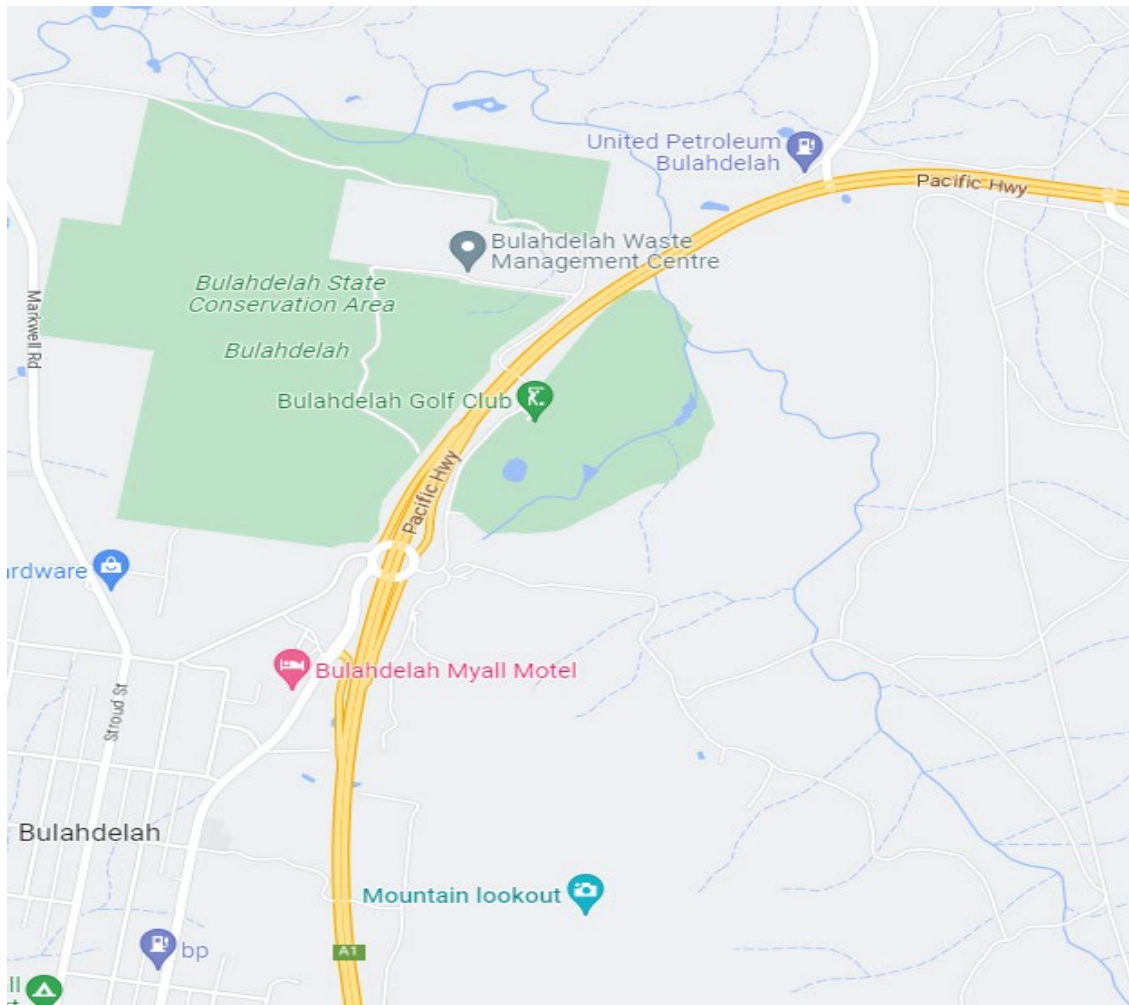
**Name of the Facility – Bulahdelah Waste Management Centre**

**Address -** Recovery Road, Bulahdelah NSW 2425

**Property Description -** Lot 127 DP 753150

### Location Map

**Figure 1 – Location Map**



**Owner** – Midcoast Council

**Area** – the site occupies an area of approximately 8 hectares

**Site access** – site access is approximately 3km north from the township of Bulahdelah on the Pacific Highway and the facility is now closed to the public. An adjoining Waste Transfer Facility provides for local waste disposal.

## Facility Description

### Site Plan

Figure 2 – Site Plan



The Site Services and Infrastructure Plan described as figure 2 shows the overall site arrangement, activity areas, the locations of first response equipment in the event of a pollution incident together with the identification of the sources of potential pollutants.

The Site Services and Infrastructure Plan can be located in **Appendix 24** of this document.

**Site Activities** - the Bulahdelah Landfill & Waste Transfer Station incorporates a number of

related activities and comprises –

**(i) The landfill** operated under EPL 13109 as a General Solid Waste (putrescibles) facility where up to 1,000 tonnes per annum (tpa) of waste material was buried. Waste material type is limited to general Municipal Solid Waste. The EPL has since been surrendered.

Leachate drains have been installed as part of an overall leachate management system within the site, including a retrofitted leachate interceptor drain along the toe of the northern batter. Leachate from the landfill operations drain to a down gradient leachate dam where the leachate is pumped for disposal through surface irrigation. An overflow dam forms part of the leachate management system.

The council is responsible for the placement of mobile litter fences, the compaction and covering of all incoming wastes, preparation of future filling stages together with overall site maintenance, including the operation of the leachate management system and the surface water management system.

**(ii) Resource Recovery/Gatehouse** operations were conducted under contract where the gatehouse was the control point for incoming wastes and where the loads are inspected to ensure only approved waste types are accepted, where fees are applied, resources extracted for recycling and instructions given for waste placement. Household recyclables are collected and recovered goods offered for sale. The gatehouse is also the point of separation and storage of chemicals, used gas cylinders, lead acid batteries, used tyres and hazardous materials.

**(iii) Stockpile Areas** – scrap metal, concrete and masonry, and self haul garden wastes are stockpiled in defined areas before removal off site or for processing on site. Service contracts ensure these materials are removed or processed routinely to ensure stockpiles are maintained at minimum sizes.

### 3. POLLUTION INCIDENT PREVENTION, RECOGNITION AND PREPAREDNESS

#### 3.1 PREVENTION AS AN INCIDENT RESPONSE

**Midcoast Council** is committed to minimizing the circumstances under which pollution incidents may occur. Through the use of regularly scheduled meetings, employee and contractor’s orientations, training programs, routine inspections of activity areas and the application of standard operational procedures, Council employees and contractor’s personnel will be able to identify and respond to conditions that might lead to a pollution incident.

Council employees and contractors are to be instructed, as part of their training and orientation, in the steps to report and respond to facility conditions or issues that might give rise to pollution incidents where these conditions/issues are found to exist.

Pre-emptive actions to be taken to minimise or prevent any risk of harm to human health or the environment arising from the activities undertaken at the facility in the context of the potential pollution hazards identified in Section 2.2 above are provided as follows;

**Table 1 – Summary of Pre-emptive Actions**

POTENTIAL HAZARD	PRE-EMPTIVE ACTION
<ul style="list-style-type: none"> <li>• Leachate dam overflow</li> <li>• Leachate pump line failure</li> <li>• Run off from leachate irrigation area into adjoining watercourse</li> <li>• Ground water contamination</li> <li>• Surface water contamination</li> <li>• Leachate spring eruption</li> <li>• Fire in green waste stockpile</li> <li>• Chemical spill</li> <li>• Oil/fuel spills.</li> <li>• Failure of hazardous material containment tanks/bund</li> <li>• Windblown litter</li> <li>• Odour</li> <li>• Dust</li> <li>• Explosion of gas cylinders</li> </ul>	<p>Undertaking routine inspections in accordance with the EMP checklist (see <b>Appendix 23</b>) and responding in accordance with Standard Operating Procedures (SOPs) as contained in <b>Appendices 6 to 22</b></p>

### 3.2 INVENTORY OF POTENTIAL POLLUTANTS

Potential pollutants kept on the premises or used in carrying out activities at the premises, including the maximum quantity of any potential pollutant that is likely to be stored or held at the premises together storage locations are summarized as follows;

***Table 2 – Summary of Potential Pollutants***

POLLUTANT TYPE/ SUBSTANCE	SOLID, LIQUID, GAS or POWDER	QUANTITY	LOCATION (see site plan)	TYPE OF CONTAINMENT	MSDS
Leachate	Liquid	Up to 1,000,000 litres (contained within primary dam and overflow dam)	Down gradient of active tipping area	Excavated earth formed	NA
Used tyres	Solid	50 units	Resource Recovery Area	Hardstand	NA
Green waste	Solid	1000 cubic metres	Resource Recovery Area	Hardstand	NA
Diesel	Liquid	10 litres (fuel tank of leachate pump)	Adjacent to leachate dam		NA
Oil based paint	Liquid	Up to 50 litres	Tip shop	Bunded	
Water based paint	Liquid	Up to 50 litres	Tip Shop	Bunded	
Gas cylinders	Solid	Up to 10 units	Gatehouse	Pallet	NA
General household chemicals	Liquid or Powder	Up to 20 litres	Gatehouse	Bund and locked storage cabinet	Recorded
Solvents	Liquid	Up to 20 litres	Gatehouse	Bund and locked storage cabinet	Recorded
Lead Acid Batteries	Solid	Up to 100 units	Gatehouse	Bunded pallet	NA

A map showing the location of pollutant locations is provided **under Part 2.2 of this Plan**.

### 3.3 NATURE AND LIKELIHOOD OF POLLUTION INCIDENTS

Notwithstanding **Midcoast Council's** commitment to preventing conditions/issues which might give rise to a pollution incident, it is not possible to negate all situations whereby a pollution incident may occur. Possible pollution incidents associated with the operation of the Facility are:

- Fire within facility activity areas
- Explosion of gas bottles
- Spill of chemical or other hazardous materials



- Leachate discharge off site
- Litter, odour and dust

Having regard to the nature of the operation of the **Bulahdelah Waste Management Centre**, the level of risk posed by the possible pollution incidents to the environment and the need and priority for management action is qualified for the facility using the following methodology.

Inherent risk will be assessed by combining the likelihood and consequence of the identified potential risk. In determining the assessment of the likelihood and consequence, the following rating processes was utilised.

### 3.3.1 Likelihood

Determination of the probability or likelihood of environmental harm, damage or loss occurring as a result of a pollution incident using the ranking risk factors by probability methodology contained in the following table.

***Table 3 - Likelihood of a risk occurring.***

Rating	Measure	Description
1	Rare	May occur only in exceptional circumstances.
2	Unlikely	Could occur at some time.
3	Possible	Might occur at some time.
4	Likely	Will probably occur in most circumstances.
5	Almost certain	Is expected to occur in most circumstances.

### 3.3.2 Consequence

Determination of the consequence of the potential environmental harm, damage or loss using the ranking risk factors by consequence methodology contained in the following table.

***Table 4 – Consequence of a risk occurring***

Rating	Measure	Description
1	Insignificant	Environmental impact is undetectable
2	Minor	Environmental impact is virtually undetectable.
3	Moderate	Minor (usually reversible) some potential for low level environmental impacts which can be easily managed
4	Major	Major environmental impact which is reversible
5	Catastrophic	Major environmental impact which maybe irreversible

### 3.3.3 Risk Evaluation

Individual evaluation of the management priority for each potential pollution incident using the risk priority matrix presented in the following figure.

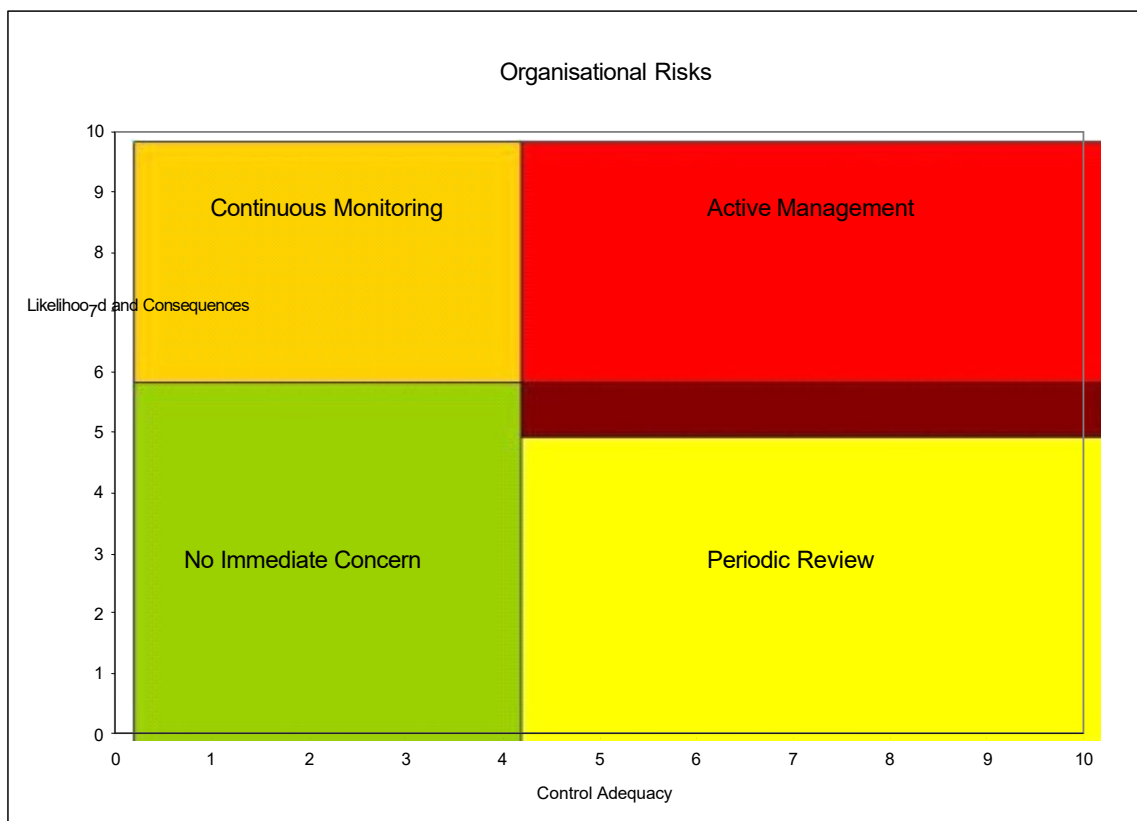
#### Definitions – Report Key

Rating	Definition
<b>Low 1 – 2</b>	Acceptable Risk – Review consequence and likelihood and manage through routine procedures
<b>Moderate 3 – 5</b>	Ensure management system controls risk and managerial responsibility is defined.
<b>Significant 6 – 8</b>	Ensure system and process controls are such that the risk is as low as is reasonably practicable and that due diligence systems are established so that appropriate management processes can be demonstrated to be in operation.
<b>High 9 – 10</b>	Risk must be assessed and reduced or eliminated. If the risk cannot be reduced from “High”, then management must provide continuing assurance that due diligence systems are in place so that appropriate management processes can be demonstrated as being in operation.

The residual risk has been shown by measuring the inherent risk against the assessed effectiveness of the controls. High risks will be eliminated by change of scope or schedule.

For the purposes of this Plan high risks and significant risks will be eliminated or managed. Moderate risks will be monitored. Low risks will be accepted.

**Figure 3 – Risk Priority Matrix**



The outcomes of the risk assessment together with the relevant incident control/management action are summarized in Table 5 below -

**Table 5 – Risk Management Plan**

Pollution Hazard	Risk Factors	Outcome	Likelihood/Consequence (Rating)	Pre-emptive Actions	Reference	Likelihood/Consequence post control (Rating)	Incidence Response Actions	Reference
(1) ENVIRONMENTAL (a) Leachate Discharge Off Site	Leachate dam overflow	Leachate contamination of adjacent land and/or waterways	Possible/major (Significant)	Routine inspection included in EMP checklist  Surface water monitoring of down gradient points	EMP Inspection checklist as provided in Appendix 23 of the PIRMP	Rare/Major (Moderate)	SOP Appendix 6	SOP within the PIRMP
	Leachate pump breakdown or pipeline failure	Leachate contamination of adjacent land and/or waterways	Possible/major (Significant)	Routine inspection included in EMP checklist.  Scheduled maintenance servicing of pump, pump connections and pump line  Standby pump and service parts available  Surface water monitoring	EMP Inspection checklist as provided in Appendix 23 of the PIRMP  Contractor's EMP	Rare/Major (Moderate)	SOP Appendix 7	SOP within the PIRMP  Report in EPL Annual Return
	Leachate contamination of the surface water management system.	Leachate contamination of adjacent land and/or waterways	Possible/major (Significant)	Routine inspection included in EMP checklist to ensure suitable management procedures, including bund separation at active tipping area	EMP Inspection checklist as provided in Appendix 23 of the PIRMP	Rare/Major (Moderate)	SOP Appendix 6	SOP within the PIRMP

	Leachate seepage from landfill operations into water table	Leachate migration and possible contamination of water table	Possible/major (Significant)	Monitoring of ground bores to detect leachate migration	EMP Inspection checklist as provided in Appendix 23 of the PIRMP	Rare/Major (Low)	SOP Appendix 7	SOP within the PIRMP Report in EPL Annual Return
	Uncontrolled or undetected leachate springs	Leachate contamination of the surface water management system, adjacent land and/or waterways	Possible/major (Significant)	Routine inspection included in EMP checklist	EMP Inspection checklist as provided in Appendix 23 of the PIRMP	Rare/Major (Moderate)	SOP Appendix 6	SOP within the PIRMP
<b>(b) Combustion</b>	Stockpile of used tyres ignites	Combustion creates smoke and oil residues	Possible/moderate (Moderate)	Maintain buffer zones  Limit quantity of tyres held on site  Routine inspection included in EMP checklist	EMP Inspection checklist as provided in Appendix 23 of the PIRMP	Rare/Moderate (Low)	SOP Appendix 11	SOP within the PIRMP

	Green waste stockpile ignites	Combustion creates smoke and fire hazard	Possible/moderate (Moderate)	Routine inspection included in EMP checklist to ensure stockpile size management and maintenance of buffer zones	EMP Inspection checklist as provided in Appendix 23 of the PIRMP	Rare/Moderate (Moderate)	SOP Appendix 12	SOP within the PIRMP
<b>(c) Chemical Spills</b>	Chemical spill from ruptured or leaking storage containers	Soil contamination Creation of volatile fumes Explosion/fire	Possible/major (Significant)	Retain minimum quantities on site  Separation areas between stored chemicals  Creation of covered bunded storage areas	EMP Inspection checklist as provided in Appendix 23 of the PIRMP	Rare/Moderate (Low)	SOP Appendix 14	SOP within the PIRMP

	Incompatible chemical cross contamination in storage areas	Explosion/fire	Possible/major (Significant)	Retain minimum quantities on site  Use approved chemical safes for storage  Separation areas between stored chemicals  Creation of covered bunded storage areas	EMP Inspection checklist as provided in Appendix 23 of the PIRMP	Rare/Moderate  (Low)	SOP Appendix 15	SOP within the PIRMP
	Leakage from incoming loads	Soil contamination  Contamination of adjacent land and/or waterways	Possible/major (Significant)	Inspection of all incoming loads as required in EMP checklist.	EMP Inspection checklist as provided in Appendix 23 of the PIRMP	Rare/Moderate  (Low)	SOP Appendix 15	SOP within the PIRMP
<b>(d) Oil/Fuel Spillage</b>	Rupture of fuel containers or storage tanks	Soil contamination  Creation of volatile fumes  Explosion/fire	Possible/major (Significant)	Retain minimum quantities on site	EMP Inspection checklist as provided in Appendix 23 of the PIRMP	Rare/Moderate  (Low)	SOP Appendix 17	SOP within the PIRMP
	Rupture of mobile plant hydraulic lines	Soil contamination  Contamination of adjacent land and/or waterways	Possible/major (Significant)	Staff training in waste placement and compaction techniques. Routine plant servicing.	Staff training records	Rare/Moderate  (Moderate)	SOP Appendix 17	SOP within the PIRMP

<b>(e) Dust</b>	Dust migrating off site	Complaints to EPA	Possible/moderate (Moderate)	Wet down unsealed trafficable areas  Use shredded green waste on exposed areas of placed cover material	EMP Inspection checklist as provided in Appendix 23 of the PIRMP	Rare/Minor (Low)	SOP Appendix 18	SOP within the PIRMP
<b>(f) Odour</b>	Offensive odour	Complaints to EPA	Possible/moderate (Moderate)	Inspect/clean push pits	EMP Inspection checklist as provided in Appendix 23 of the PIRMP	Rare/Minor (Low)	SOP Appendix 19	SOP within the PIRMP
<b>(g) Litter</b>	Litter migrating off site	Complaints to EPA	Possible/moderate (Moderate)	Provide daily or intermediate cover to waste  Erect litter fences  Litter collection activities	EMP Inspection checklist as provided in Appendix 23 of the PIRMP	Rare/Minor (Low)	SOP Appendix 20	SOP within the PIRMP
<b>(2) COMPLIANCE</b> <b>(a) Incident Reporting</b>	Non-compliance with statutory reporting	Cautionary Notice  PIN	Unlikely/Moderate	Prepare reports as required	Reporting protocols included in EMP checklist. Appendix 23.	Rare/Moderate (Low)	SOP Appendix 22	SOP within the PIRMP



<p><b>(3) WORKPLACE HEALTH and SAFETY</b></p>	<p>Personal injury to staff, contractors, general public attending the facility</p>	<p>Trauma Lost time Rehabilitation Compensation</p>	<p>Likely/major</p>	<p>Regular tool box meetings with staff and contractors</p> <p>Safe Work Method Statements prepared and implemented</p> <p>Risk assessments undertaken</p> <p>Safety plans developed for major works</p> <p>Staff training</p> <p>Job and site specific orientation for new staff, visitors and contractors</p> <p>Independent audit of all systems of work</p> <p>Emergency and evacuation plans prepared and tested</p>	<p>Established tool box meeting protocols</p> <p>Contractor's Health, Safety and Environment Plan</p> <p>Contractor's Health, Safety and Environment Plan</p> <p>SOP Appendix 2</p> <p>Contractor's Health, Safety and Environment Plan</p> <p>SOP Appendix 21</p>	<p>Unlikely/moderate  (Moderate)</p>		<p>SOPs within the PIRMP</p>
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### 3.4 INCIDENT PREPAREDNESS

#### 3.4.1 Response Equipment and Features

The **Bulahdelah Waste Management Centre** has a number of active and passive pollution control/safety devices and equipment that can be used during a pollution incident.

Relevant details of pollution incident equipment and features are provided as follows;

***Table 6 – Response Equipment Inventory***

<b>EQUIPMENT</b>	<b>LOCATION</b>	<b>QUANTITY</b>	<b>MAINTAINANCE REQUIREMENTS/STANDARDS</b>
Asbestos kit	Waste Services Field Officer vehicle	1	Monthly inspection
Chemical spill kit	Gatehouse	1	Monthly inspection
Fire extinguisher	Gatehouse	1 – office 1 - lunch room	Six monthly inspection and tagging
Sandbags	Gatehouse	20	Three monthly inspection and replenishment
First Aid Kit	Gatehouse All plant & equipment	1 1 each	Monthly inspection and replenishment.
Onsite container control unit housing leachate diesel pump / solar powered pump / spare fire extinguisher	Old landfill leachate dam	1	Monthly inspection of equipment

Active systems and equipment such as portable fire extinguishers should only be used by persons who are suitably trained and it is safe to do so.

The location of all incident response equipment will be clearly identifiable so that Council employees and contractor's staff faced with an incident and under pressure will confidently locate and select the appropriate type of equipment.

The maintenance of the systems and equipment is to be undertaken in accordance with the standards nominated in the Table above.

### **3.4.1 Communication System**

A landline telephone system is installed within the **Bulahdelah Waste Management Centre** with this system providing for communication externally via a telecommunications service provider. In a pollution incident this telephone can be used as a means of notifying those individuals/organisations responsible for activating this Plan and managing the incident response. In addition to the telephone system, mobile phones will be an accepted means of communications should suitable reception be available.

Further, Council has an obligation to inform members of the local community should a pollution incident occur that could affect their property or safety. Communication mechanisms include phoning occupiers of neighbouring properties, issuing media releases and providing information on Council's web site.

A summary of community notification and communication is provided in table 9 of Section 4.3.2

### **3.4.2 Security**

Access to the **Bulahdelah Waste Management Centre** by unauthorised persons and unauthorised activities occurring on the site will be controlled at the gatehouse by Resource Recovery who are required to provide access to authorized persons only.

### **3.4.3 First Aid Equipment**

A suitable fully stocked and easily accessible first aid kit is located at the gatehouse of the Waste Transfer Station and its location clearly labelled.

### **3.4.4 Signs and Labels**

Signs and labels provide key information to facility personnel and users. The location of signs is important.

Suitable signage indicating the location of incident response equipment and features and the first aid kit will be provided and maintained within the facility.

A list of emergency phone numbers will be clearly displayed at a location within the facility that can be seen by Council employees, contractors and facility users.

### **3.4.5 Funding Arrangements and Support**

As the costs associated with the clean up of an incident can be significant – in past cases these have been in excess of \$1 million – consideration must also be given to funding arrangements, such as taking out appropriate insurance or having contingency funds available.

The cost of any clean up that is undertaken by emergency response agencies and the EPA will generally be recovered from the company or individual responsible for the pollution incident.

Having regard to the above the following pollution incident funding arrangements are in place;

- Reserves within Council's Waste Fund
- Public liability insurance policies

## 4. POLLUTION INCIDENT CONTROL AND RESPONSE

### 4.1 KEY FACILITY INCIDENT MANAGEMENT CONTACT DETAILS

The following is a list of incident response individuals who are responsible for activating this Plan together with their notification and communication responsibilities.

***Table 7 - Plan Activation Contact Details***

NAME	POSITION	CONTACT DETAILS (24 Hours)	NOTIFICATION RESPONSIBILITIES	COMMUNICATION RESPONSIBILITIES
<b>David Rees</b>	Waste Manager	0436 830 159	Emergency Services EPA Director Liveable Communities Council Executive	Contractors Neighbouring property owners Media releases Web update
<b>Duncan Russ</b>	Coordinator Waste Operations	0402 089 222	Waste Manager, Emergency Services, EPA emergency hotline	Contractors Neighboring property owners Web update As delegated by the Waste Manager
<b>Emillie Wilde</b>	Senior Waste Operations Officer	0421 791 174	Waste Manager, Emergency Services, EPA emergency hotline, Coordinator Waste Operations	As delegated by the Waste Manager
<b>Tony Evans</b>	JR Richards Contract Manager		Coordinator Waste Operations EPA emergency hotline, Team Leader Waste Operations, Waste Officer Technical, RRA Manager	

The above details are to be verified annually and updated whenever a change in personnel or responsibility has occurred.

## 4.2 KEY INCIDENT CONTACT DETAILS

The following is a list of incident response individuals and organizations that may be needed during a pollution incident.

This list is to be verified annually and updated whenever an organization advises that a change has occurred.

**Table 8 - Incident Contact Details**

<b>ORGANISATION</b>	<b>CONTACT NAME</b>	<b>CONTACT DETAILS</b>
<b>Fire and Rescue NSW</b>	Duty Officer	000
<b>Police Force NSW</b>	Duty Officer	4997 4204 (local) 000
<b>Ambulance Service of NSW</b>	Duty Officer	1312333 000
<b>Manning Base Local Hospital</b>	Reception	65929111 000
<b>NSW Environment Protection Authority (EPA)</b>	EPA Environment Line	131 555
	Newcastle Regional Office	49 086800
<b>Department of Environment and Conservation (NP&amp;WS)</b>	NSW Parks and Wildlife Service	1300 361 967 or 02 9995 6500
<b>SafeWork Authority</b>	Duty Officer	131050

<b>Department of Primary Industries (NSW Fisheries)</b>	Reception	1300550474
<b>Poisons Information</b>	Duty Officer	131126 000
<b>NSW Ministry of Health</b>	Reception	93919000
<b>Department of Families and Community Services</b>	Reception	92480900
<b>State Emergency Service</b>	Duty Officer	132500 000
<b>Roads and Traffic Authority</b>	Reception	132213
	Land weather and flood warnings	1300 659 218

### **4.3 INCIDENT NOTIFICATION AND COMMUNICATION**

#### **4.3.1 Incident Notification**

In order to provide for the safety of employees and facility users and to ensure appropriate pollution incident response, it is essential that early warning and notification of pollution incidents are made so that incident response procedures can be implemented and incident response organizations notified of the situation.

The prompt notification of an incident can often greatly assist in ensuring that the risk of injury, death, damage or environmental harm is minimized.

In this regard the following incident notification procedures are to be implemented.

#### **4.3.1 Small Area/Minor Incidents**

Incidents such as small chemical spills or litter will generally not require the notification of incident response agencies.

However, it will be the general practice that **all** incidents will be notified immediately to the **Team Leader Waste Operations, Midcoast Council** so that an assessment of the level of response required can be made.

The landline telephone will be the preferred means of reporting such incidents.

In addition to the immediate notification of any minor incident or event, an incident report notification form, refer to **Appendix 4**, is to be completed and forwarded to the **Team Leader Waste Operations, Midcoast Council**.


#### **4.3.2 Major Incident**

A major incident is *where material harm to the environment is caused or threatened.*

Where a major incident occurs, the **Waste Management Coordinator, Midcoast Council** is to **immediately** implement the pollution notification protocol included as **Appendix 5**.

In addition to the immediate notification of any major pollution incident, an incident report notification form, refer to **Appendix 4**, is to be completed and forwarded to the **Manager Waste**.

Importantly Appendix 5 requires the immediate notification of;

- the appropriate regulatory authority (ARA) for the activity under the POEO Act (usually the EPA or local authority) – the local authority is a local council of an area under the Local Government Act 1993), the Lord Howe Island Board for Lord Howe Island, or the Western Lands Commissioner for the Western Division (except any part of the Western Division within the area of a local council)
- the EPA, if it is not the ARA – phone Environment Line on 131 555
- the Ministry of Health via the local Public Health Unit see [ww.health.nsw.gov.au/public-health/infectious/phus.asp](http://ww.health.nsw.gov.au/public-health/infectious/phus.asp) 
- the WorkCover Authority – phone 13 10 50
- the local authority if this is not the ARA
- Fire and Rescue NSW – phone 000.

The above organisations must be notified immediately of a major pollution incident.

#### **4.3.2 Community Notification and Communication**

Communicating with neighbours and the local community is an important element in managing the response to any pollution incident.

In this regard the following notification and communication action plan will be applicable to a major pollution incident at the **Bulahdelah Waste Management Centre**. The following action



plan has been based upon the pollution incident risk assessment included in Section 3.3 of this Plan.

**Table 9 - Community Notification and Communications Plan**

<b>NATURE OF INCIDENT</b>	<b>IMPACT ON COMMUNITY</b>	<b>NOTIFICATION REQUIREMENTS</b>	<b>RESPONSIBILITY</b>	<b>NOTIFICATION MECHANISM/TOOLS</b>	<b>KEY MESSAGE</b>
Leachate discharge off site	Local impact, ranging from minor to significant	EPA  Occupiers of neighbouring properties	Waste Management Coordinator MCC  Team Leader Waste Operations	Phone call to EPA Environment Line followed by a written report  Phone call to occupiers of neighbouring properties  Information displayed on Council's web site	Assessment of severity Type and quantity of material involved Explanation of what happened Date and time of incident Response actions taken Council will provide on going information
Fire	Local impact, likely to be minor, depending on the severity of the fire	EPA  Occupiers of neighbouring properties  Local community	Waste Management Coordinator MCC  Team Leader Waste Operations	Phone call to EPA Environment Line followed by a written report  Phone call to occupiers of neighbouring properties  Media release	Date and time of incident Response actions taken Type of fire Location of fire within the site Agency responding Management of any leachate generated from fire fighting activities
Chemical spill	Local impact, likely to be minor	EPA, depending on severity	Waste Management Coordinator MCC  Team Leader Waste Operations	Phone call to EPA Environment Line followed by a written report	Date and time of incident Response actions taken Type of chemicals Agency responding
Oil/fuel spill	Local impact, likely to be minor	EPA, depending on severity	Waste Management Coordinator MCC  Team Leader Waste Operations	Phone call to EPA Environment Line followed by a written report	Date and time of incident Response actions taken Type of oil/fuel Agency responding
Explosion	Local impact, likely to be minor	EPA and nearby property occupants	Waste Management Coordinator MCC	Phone call to EPA/ property owners	Assessment of severity Agency responding

		depending on severity	Team Leader Waste Operations	followed by a report to the EPA	Date and time of incident Damage report
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## 4.4 FACILITY EVACUATION

### 4.4.1 General Requirements

Most minor pollution incidents will not require the evacuation of all or part of the facility however it is acknowledged that any major incident may require the facility to be evacuated.

Evacuation of Council employees, contractors and facility users in the event of a major incident is of the utmost importance.

In order to achieve a safe and timely evacuation, it is critical that an early warning of the pollution situation be communicated and action implemented to remove Council employees contractor's staff and facility users from the hazardous area.

In this regard the standard operating procedures applicable to facility evacuation, refer to **Appendix No 21**, must be implemented once a decision is made to evacuate the facility.

The decision to evacuate the facility is to be taken by the site contractor **Resource Recovery or Councils Waste Officer**.

### 4.4.2 Stages of Evacuation

There are 2 stages of evacuation that are applicable to the facility being;

- Stage one: Immediate Area – The evacuation of persons in immediate danger.
- Stage two: Total Facility – A complete evacuation of the Facility by all people.

It will be, due to facility operational practicalities, the responsibility of the site contractor **Resource Recovery** to determine the need for and the extent of facility evacuation in the event of a major pollution incident.

Whilst the need for evacuation will be based upon the nature and scale of an incident, it is of primary importance that personal and public health is not put at risk at anytime during a pollution incident. In this regard a precautionary approach to facility evacuation is to be taken by the site contractor **Resource Recovery** and supported by facility management.

*In the event of a Total Facility Evacuation, the Facility is not to be re-entered unless permitted to do so by the **Team Leader Waste Operations, Midcoast Council**.*

#### 4.4.3 Priority of Evacuation

The site contractor **Resource Recovery** will be responsible for prioritising the order in which people are evacuated from the site of the incident. Generally, the following priorities apply;

- Ambulatory
- Semi-ambulant (people requiring some physical assistance)
- Non-ambulant (people who need to be physically moved or carried)
- Aggressive, violent or resistive people.

The above priority for evacuation is for guidance only, the emergency may dictate otherwise.

*Where a person refuses to comply with a direction given by site contractor **Resource Recovery**, the following action is to be initiated:*

- *Ensure that the person has been clearly advised that they are required to evacuate the building because of an emergency situation that maybe life threatening.*
- *Notify the Officer-in-Charge of the attending emergency service.*

#### 4.4.4 Mobility Impaired Persons

The procedures for assisting mobility-impaired persons should be discreetly discussed with the individual concerned.

Contractors should be trained in methods of assisting mobility-impaired persons during an emergency.

#### 4.4.5 Evacuation Assembly Areas

Given the relatively small size of the site, low usage with the likelihood of few personnel present at any one time and the limited quantities of potential pollutants retained on the site that would be harmful to human health, site contractors **Resource Recovery** primary role in the evacuation of the site will be to ensure all contractors, council staff and facility users that may be on site vacate the site as directed, the facility entry gates are closed and **Resource Recovery** wait for emergency services to arrive or other actions as directed by **Team Leader Waste Operations, Midcoast Council**.

#### 4.6.6 Post Evacuation Assembly Point

Once the facility has been evacuated and the presence of personnel confirmed, arrangements will be made by the site contractors **Resource Recovery** for any Council employees and contractors to be moved to the Post Evacuation Assembly Point which for the purposes of this Plan is Wade Park within the Bulahdelah township.

Incident debriefing and incident investigation will be undertaken at the Post Evacuation Assembly Point. Further management instructions will also be provided.

## 5. POLLUTION INCIDENT RESPONSE PROCEDURES

**Appendices No 6 to 21** of this Pollution Incident Response Management Plan contain instructions, (Standard Operating Procedures – SOP's), for facility employees, contractor's staff and facility users about actions to be taken for personal safety, and the procedures that are to be implemented to help guide management efforts during a pollution incident such as;

- Leachate discharge
- Fire
- Chemical spill
- Oil/fuel spill
- Explosion
- Facility Evacuation

## 6. POST POLLUTION INCIDENT ACTIVITIES

This section of the Pollution Incident Response Plan identifies those activities necessary to support Council staff and contractor's staff during and following a pollution incident and those activities necessary to restore operations at the **Bulahdelah Waste Management Centre**

### 6.1 RECOVERY OPERATIONS

The recovery of facility operations and services will depend on the extent of damage suffered by the facility.

**The Team Leader Waste Operations, Midcoast Council**, in collaboration with the site contractors **Resource Recovery** will need to prioritize activities that can be accomplished with available staff and resources.

Immediately following the emergency phase of an incident, the **Team Leader Waste Operations, Midcoast Council**, will develop an operational recovery plan.

### 6.2 INCIDENT INVESTIGATION

A pollution incident must be investigated as soon as possible following its occurrence. The investigation is designed to determine why the incident occurred and what precautions can be taken to prevent a recurrence.

The **Team Leader Waste Operations, Midcoast Council** is responsible for ensuring that an incident investigation is conducted following all pollution incidents that occur at the facility.

### 6.2.1 Small Incidents

For small incidents, the site contractors **Resource Recovery** will normally conduct the investigation.

### 6.2.2 Major Incidents

For major pollution incidents where material harm to the environment is caused or threatened statutory authorities and emergency response agencies will generally be involved in conducting the investigation.

The **Team Leader Waste Operations, Midcoast Council** and the site contractors **Resource Recovery** will assist the authorities as needed.

## 6.3 DOCUMENTATION

Documentation of response activities is of critical importance following a pollution incident. All records and forms used during the incident to document activities must be retained for future reference.

Following a pollution incident or emergency situation, the **Team Leader Waste Operations, Midcoast Council** will have the responsibility for collecting all records and forms used during the incident. These will be used for several purposes, such as incident investigation, insurance claims and potential legal actions.

The **Team Leader Waste Operations, Midcoast Council** must prepare a report documenting activities that took place during a major pollution incident.

The report of the **Team Leader Waste Operations, Midcoast Council** and all related documentation will be submitted to the **EPA** and to the **Manager Waste** to review and to take all necessary follow-up actions.

## 6.4 INCIDENT DAMAGE ASSESSMENT

Following an incident, an assessment of damage that has occurred to the facility, the environment and equipment must be conducted.

The major goal of this assessment will be to determine the extent of damage to facilities and/or the environment resulting from the incident, and identify repairs or restoration that must be initiated to minimize further damage and restore the facility for operational use or to rehabilitate the environment.

The **Team Leader Waste Operations, Midcoast Council** will have the primary responsibility for conducting the damage assessment following an incident.

Assistance will be obtained as needed from facility employees and outside organizations, such as ecologists, engineers and clean up contractors.



## **6.5 INCIDENT DEBRIEFING**

The purpose of incident debriefing is to inform contractors and employees about any hazards that may still remain on the facility property following the incident and to identify unsafe conditions that may still exist.

## **6.6 INCIDENT CRITIQUE**

The critique of the incident is a review of what actions took place during the pollution incident, both good and bad. A critique is not designed to place blame, but rather to allow for the flow of ideas and recommendations to improve the effectiveness of the Pollution Incidence Response Management Plan and the facility procedures.

## **6.7 MEDIA MANAGEMENT**

Under no circumstance is any member of Council's staff or the contractor to provide information or statement to the media unless authorized by the **Director of Liveable Communities, MidCoast Council**.

# APPENDIX 1

<b>POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN AMENDMENT NOTIFICATION FORM</b>		
<p>Following a review of the Pollution Incident Response Management Plan that was conducted on (date to be added), the following amendments to the plan have been made. Accordingly these changes are to be incorporated into the Pollution Incident Response Management Plan document which is kept by you.</p>		
<b>DISTRIBUTION</b> <ul style="list-style-type: none"> <li>• Master copy</li> <li>• Site copy</li> </ul>		<b>DATE SENT</b>   
PAGE NUMBER	PLAN SECTION	DESCRIPTION OF CHANGE
<b>Management Authorization..... Dated.....</b>		
<p>I acknowledge receipt of the amendments to this PLAN and have incorporated into the document for which I am responsible.</p> <p>Signed..... Dated.....</p>		

## APPENDIX 2

<b>Training Standard Operating Procedure</b>
<p><b>Purpose and Scope</b></p> <p>To ensure the safe and effective management at the Bulahdelah Waste Management Centre, it is essential that all relevant staff receive training appropriate to their position, duties and level of responsibility.</p> <p>The purpose of this procedure is to outline the minimum training requirements which are applicable to staff involved in the operations of the waste management facility and in the provision of waste management services.</p> <p><b>Primary Environmental Goal</b> – Adequate staffing and training. Benchmark Technique 39.</p>
<p><b>Procedure/Standard</b></p> <p>Staffing and training requirements shall be adequate to enable responsible management and capable service delivery</p> <p>Staff will undergo a variety of training to ensure an adequate level of skill and education is possessed to enable all tasks and activities to be carried out successfully. Training will be conducted in house, on the job or by external providers.</p> <p>The guidance for specific training programs that are integral to the operation of Council's facilities is described below.</p>
<p><b>Program A – Site Environment Induction (EMP)</b></p> <p>Key points to be covered in this program may include:</p> <ul style="list-style-type: none"><li>• environmental impacts of the landfill</li><li>• pollution incident response</li><li>• waste identification and rejection procedures</li><li>• hours of operation and traffic management</li><li>• environmental mitigation measures and controls</li><li>• record keeping and reporting</li><li>• waste placement, compaction and covering</li></ul> <p>This training would be in-house, and would be provided by the Council's waste officers, the site contractor or his representative or by consultants. Training would be provided when new staff or contractors commence at the site.</p>
<p><b>1.1.1.1 Program B – Fire Fighting</b></p> <p>Key points to be covered in this program may include:</p> <ul style="list-style-type: none"><li>• Types of fires (eg oil, electrical)</li><li>• Determining responsibilities in the event of a fire (staff/fire brigade)</li><li>• Procedures for extinguishing fires</li><li>• Types/location and maintenance of fire fighting equipment</li><li>• Prevention of fires</li></ul>

<ul style="list-style-type: none"> <li>• Procedures for communication in the event of fire</li> </ul> <p>This training would be undertaken at the site in the form of a toolbox talk and may include practical demonstrations by external service providers. The training would be prepared and delivered by suitably qualified personnel, including by officers of the local NSW Fire and Rescue.</p>	
<p><b>1.1.1.2 Program C – Hazardous Substance and Dangerous Goods Management</b></p> <p>Key points to be covered in this program may include:</p> <ul style="list-style-type: none"> <li>• Use and interpretation of material safety data sheets</li> <li>• Identification of hazardous materials</li> <li>• Handling of hazardous materials</li> <li>• Labelling of containers</li> <li>• Storage and transport of hazardous substances and dangerous goods</li> <li>• Spill management and basic first aid procedures</li> <li>• Compatibility of materials.</li> </ul> <p>This training would be provided by a suitable service provider. Where required, additional input may be required from external Workcover Accredited OH&amp;S Consultants.</p>	
<p><b>Training Records</b></p> <p>A record of all training undertaken will be maintained at the Council's and the company's offices and will be made available for inspection by authorised personnel.</p>	
<p><b>Benefit of Compliance to Procedure:</b></p> <ul style="list-style-type: none"> <li>• Impacts on the natural environment are minimised</li> <li>• Operational issues identified</li> <li>• Demonstrated operational competency</li> <li>• Employees safety protected</li> <li>• Health and safety of public/facility user protected</li> <li>• Meeting environmental goal</li> </ul>	
<p><b>Consequence of Non-Compliance to Instruction:</b></p> <ul style="list-style-type: none"> <li>• Violations and/or fines from Regulatory Agencies</li> <li>• Pollution of the environment</li> <li>• Unresolved operational issues</li> <li>• Injury/Death to employee</li> <li>• Injury/Death to public/facility users</li> <li>• Violations and/or fines from Regulatory Agencies</li> </ul>	
<p><b>Reviewed by:</b></p> <p><b>Date:</b></p>	<p><b>Approved by:</b></p> <p><b>Date</b></p>

**Pollution Incident Response Management Plan  
Training/Competency Summary**

Operational staff	Training/Competency Program		
	<b>Program A – Site Environmental Induction</b>	<b>Program B – Fire Fighting</b>	<b>Program C – Hazardous Substance and Dangerous Good Management</b>
Name & Position	Date of Training Completion		

### APPENDIX 3

<b>POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN EXERCISE EVALUATION FORM</b>		
Facility: Bulahdelah Waste Management Centre,		
Date:		
EMERGENCY SEQUENCE:	TIME	
	Hours	Minutes
Incident uncovered		
Assessment of significance		
Initiation of incident response/notification of incident		
Evacuation decision (if necessary)		
Incident control/remediation action commenced		
Evacuation commenced (if necessary)		
Warden checks for personnel present		
Evacuation completed (if necessary)		
Pollution contained		
Clean up commenced		
Clean up completed		
All clear given		
Pollution Incident Report Form completed		
Exercise terminated		
<b>COMMENTS</b>		
1. Compliance with Standard Operating Procedures (SOP's)		
2. Competency of Employees assessment		
3. Time frames for response		
4. General Comments/Recommendations for action		
Observer		
Signed		
Date		

## APPENDIX 4

<b>POLLUTION INCIDENT REPORT FORM (A)</b>			
Date of Incident:		Time of Incident:	
Nature of incident Eg: Leachate discharge, Fire, Chemical spill.			
Location of incident Where did it occur?			
Type and quantity of material involved			
Outline action initiated in response to incident			
Was it necessary to initiate the major incident notification protocol?			
Was the Community Notification and Communications Plan activated?			
Was action in accordance with SOP? If not - why?			
Is there a need to review SOP in response?			
Date and time of details provided to Team Leader, Waste - GTCC			
Name of Reporting Person			
Management Authorization.....			
Dated.....			

## POLLUTION INCIDENT REPORT FORM (B)

### Leachate Discharge/Overflow

Date of Incident:		Time of Incident:	
Nature of incident Eg: leachate dam overflow, leachate spring eruption.			
Details of person reporting or witnessing the leachate discharge or overflow			
Location of incident Where did it occur?			
Date and time of commencement of the discharge			
Assessed volume of discharge or overflow			
Period of time the discharge or overflow occurred			
Weather conditions at the time of the discharge or overflow.			
Daily rainfall in mm on the day of the discharge. Rainfall for the week prior to the discharge			
Most recent monitoring results of the chemical composition of the leachate.	Attach analytical results		
Explanation as to why and how the discharge occurred			
Plan of Action to prevent a similar discharge			
Name of Reporting Person			
Management Authorization.....			
Dated.....			




## APPENDIX 5

### EPA NOTIFICATION PROTOCOL

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, as they are responsible for controlling and containing incidents.

If the incident does not require an initial combat agency, or once the 000 call has been made, notify the relevant authorities in the following order. The 24-hour hotline for each authority is given when available:

- the appropriate regulatory authority (ARA) for the activity under the POEO Act (usually the EPA or local authority) – the local authority is a local council of an area under the Local Government Act 1993), the Lord Howe Island Board for Lord Howe Island, or the Western Lands Commissioner for the Western Division (except any part of the Western Division within the area of a local council)
- the EPA, if it is not the ARA – phone Environment Line on 131 555
- the Ministry of Health via the local Public Health Unit see [www.health.nsw.gov.au/publichealth/infectious/phus.asp](http://www.health.nsw.gov.au/publichealth/infectious/phus.asp) 
- the WorkCover Authority – phone 13 10 50
- the local authority if this is not the ARA
- Fire and Rescue NSW – phone 000.

The appropriate contact for the relevant local authority and Public Health Unit will vary.

All necessary contact numbers should be found in advance and stored for immediate access should a pollution incident need to be notified. These contact numbers should also be identified in the Pollution Incident Response Management Plan prepared for the premises.

Complying with these notification requirements does not remove the need to comply with any other obligations for incident notification, for example, those that apply under other environment protection legislation or legislation administered by WorkCover.

## APPENDIX 6

# Leachate Discharge Emergency Response Standard Operating Procedure

### Purpose and Scope

The purpose of this procedure is to define an incident response in the event of a leachate discharge being detected or reported from the landfill operations.

### Procedure/Standard

- Leachate or leachate contaminated surface water discharge to adjacent waterways

Actions required in response to such events may vary and it will be the role of the company's Resource Recovery to determine and initiate appropriate actions.

The following notes will form the basis of that decision making together with emergency exercises and desktop trials:

- Immediately report the incident and actions taken to the **Team Leader Waste Operations**.
- Confine the source of the discharge and/or sources of inflows to limit the spread of its effects without endangering personnel.
- Construct sand bag barriers or earth berms to contain the flow and/or excavate temporary retention dams to withhold discharges.
- Secure the affected area(s) by using barricades and bunting if necessary.
- Source a tanker truck to pump out the retained leachate
- Notify neighbours who may be affected by the incident.
- A copy of the Pollution Incident Report Form is to be referred to the council

It is considered essential that all operators using the site are aware and understand the specific emergency and incident response requirements.

### Benefit of Compliance to Procedure:

- Limit environmental damage
- Health and safety of public/facility user protected

### Consequence of Non-Compliance to Instruction:

- Violations and/or fines from Regulatory Agencies

Reviewed by:

Date:

Approved by:

Date

## APPENDIX 7

### Leachate System – Management and Maintenance Standard Operating Procedure

#### Purpose and Scope

To ensure that the leachate control system is operating effectively with its design objectives to prevent leachate escaping from the landfill into groundwater, surface water and subsoil.

**Primary Environmental Goal** – Preventing pollution of water by leachate. Benchmark technique 8

#### Procedure/Standard

1. It is the responsibility of Council's staff to provide prescribed inspections of, report upon and record the following leachate control measures.
  - Inspect leachate pumps to ensure they are operating correctly.
  - Examine the level of leachate within collection wells/dams. Where leachate levels appear excessive immediately contact the **Team Leader Waste Operations**
  - Inspect pump discharge lines and discharge points/irrigation sprays to ensure their effective operation. Where failures are detected, consideration must be given to deactivating the system so as to determine the scope of repair works.
  - Examine the leachate irrigation area to ensure leachate is not discharging overland

**Note:** In considering the deactivation of the system it will be necessary to ensure that sufficient leachate storage capacity is available to cover the period of deactivation. This should involve an assessment of the likelihood of and extent of rain.
2. It is the responsibility of the Council staff to provide weekly inspections of, report upon and record the following leachate control measures.
  - Leachate chambers/valves – inspect leachate flow to ensure levels are acceptable and that leachate heads are not developing. Consider methane accumulations in the chambers and examine venting measures. **Note: under no circumstances should leachate chambers be accessed unless "confined spaces" procedures are instituted, and even then only under strict supervision.**
  - Inspect the intermediate capping for the emergence of leachate springs.
3. Where system operational defects are detected immediately contact the **Waste Management Coordinator** to discuss and arrange rectification/maintenance works.
4. Details of system inspection findings are to be recorded on the EMP inspection checklist. (see **Appendix 22**)

#### Consequence of Non-Compliance to Instruction:

- Violations and/or fines from Regulatory Agencies

• Pollution of the environment	
<b>Reviewed by:</b> <b>Date:</b>	<b>Approved by:</b> <b>Date</b>

## Appendix 8

# Groundwater Monitoring Standard Operating Procedure

### Purpose and Scope

The purpose and scope of the groundwater monitoring program should be to effectively monitor and report current groundwater character and ensure early detection and reporting of possible pollution of groundwater at the Bulahdelah Landfill & Waste Transfer Station.

**Primary Environmental Goal** – Detecting water pollution. Benchmark technique 6

### Procedure/Standard

All ground water monitoring wells at the landfill site are to be sampled on an annual basis in accordance with the requirements of the EPL. The locations of the groundwater monitoring bores are referenced in the EPL and the parameters to be analysed should align with those prescribed in the EPL. The frequency of monitoring may be reviewed after data has been collected for at least five consecutive years.

### Preparation

Before starting, a check of the required equipment is needed before sampling takes place. Table 1 shows what is needed to undertake a groundwater sampling exercise.

**Table 1: Equipment List for Groundwater Quality Sampling**

Cross X	Apparatus/Equipment List
	Rubber gloves
	Sampling pole or pump
	Chain of custody documentation
	Clipboard
	Log sheets
	Calibrated water quality field meters
	Pencil/pens
	Decontamination equipment and water

### 1. Field Procedure

- i. Measure Standing Water Level (SWL) prior to each sampling event
  - Hydrological measurements to establish the SWL with an accuracy of  $\pm 0.3\text{cm}$
- ii. Before collecting water sample, pump stagnant water to allow recharge of borehole
  - Stagnant waters are subject to evaporation which may change the groundwater chemistry. The water may contain animal and plant life which is not representative of the groundwater. If the water has not been pumped within the last 24 hours, it will be necessary to allow recharge before taking the sample.
- iii. Well purging to remove stagnant water from well casing. Wells must be purged until successive pH readings agree by 0.1pH unit.
- iv. Measure the field temperature, pH, EC and Eh of the water and record on field sheet (refer to Attachment A)
  - Chemical changes can occur due to the oxidation of the sample during the

recovery from a bore. Oxidation can occur from the pump. Because groundwater is in a reduced state some of the changes that can be expected include:

- oxidation of organics
- oxidation of sulphide to sulphate
- oxidation of ferrous iron and precipitation of ferric hydroxide
- oxidation of ammonium ion to nitrate

Problems with oxidation can largely be avoided by monitoring the oxidation state of the bore during pumping (Eh meter) and taking a sample only after the water has stabilised.

- v. Only take a water sample after pH and eC of the water being pumped is stabilised. Use containers as recommended below in Table 2.
- Release of carbon dioxide during pumping can cause an increase in pH which in turn causes many metallic ions to come out of solution (iron, manganese, magnesium, cadmium, arsenic, selenium and boron).
  - Samples must be taken with a positive displacement pump or dual valve bailer. When taking the sample, the flow rate should be reduced to approximately 100ml/minute to reduce the loss volatile components.
  - Take a bottle from the customised sample kits that the laboratory has provided. The bottle needed to test the analyses is colour coded as shown in Table 2.
  - Care should be taken not to touch the lid or the inside of the bottle as the bottle has been preserved and cleaned.

## **2. Precautions**

- All sampling equipment should be cleaned with deionised water and industrial strength detergent so that cross contamination does not occur.
- Avoid any source of contamination coming into contact with equipment (eg the ground surface).
- Do not transfer the sample from one container to the other container because of losses of organic material into the walls of the container or aeration should occur.
- Label water sample container with sample identification, date, sampler's initials and job number.
- No headspace should exist in the sample container.
- Wear gloves to avoid contamination and for OH&S reasons.

## **3. Bottle Size and Type of Preservation/Acidification**

All preservation/ acidification/ solvent washing should have been performed by the laboratory. Once the specifications and numbers of samples has been decided, use customised sampling kits containing correct number and type of bottles as well as ice bricks, Chain of Custody forms, security seals and address labels.

- Groundwater samples that are being analysed for dissolved metals should be Field Filtered prior to preservation.
- Field filtered samples will need to be collected in a red labelled bottle preserved with nitric acid.
-

**Table 2: Groundwater Sample Containers**

Bottle Type	Test Parameter
2 x 40ml vials no headspace (fill to top)	AOX (Absorbable Organic Compounds)
1 x 1litre plastic Sulphuric Acid Preserved (purple label)	Ammonia, Nitrate, Total Phenois (APHA method, nonspecified)
1 x 40ml glass vial Sulphuric Acid Preserved (purple label)	Total Organic Carbon (TOC)
1 x 1litre Natural Plastic (green label)	Alkalinity, pH, Calcium, Magnesium, Sodium, Potassium, Chloride, Sulphate, Fluoride
1 x 250ml Nitric Acid Preserved Plastic Bottle – <b>Field Filtered</b> (red label)	Dissolved Heavy Metals (Mn, Fe)

- All samples should be labelled and stored as shown in Table 3 below. However all samples should be sent to the lab as soon as possible following sampling under completed Chain of Custody Documentation.
- Fasten lid tightly and place in cooler with frozen ice bricks (must be kept at 4°C).

**Table 3: Sample Storage and Transportation Conditions**

Analyte	Holding Time (time before analysis)	Storage
Absorbable Organic Compounds (AOX)	14 days	Cool to 4°C
Alkalinity	14 days	Cool to 4°C
Ammonia	28 days	Cool to 4°C
Calcium	6 months	Cool to 4°C
Chloride	28 days	Cool to 4°C
Fluoride	28 days	Cool to 4°C
Iron	6 months	Cool to 4°C
Magnesium	6 months	Cool to 4°C
Manganese	6 months	Cool to 4°C
Nitrate	28 days	Cool to 4°C
pH	6 hours	Cool to 4°C
Total Phenolics (APHA Method, Non Speciated)	28 days	Cool to 4°C
Potassium	6 months	Cool to 4°C
Sodium	6 months	Cool to 4°C
Sulphate	28 days	Cool to 4°C
Total Organic Carbon	28 days	Cool to 4°C
Suspended Solids	7 days	Cool to 4°C
Poly Aromatic Hydrocarbons	Extract within 7 days, analyse within 40 days	Cool to 4°C
Volatile Organic Compounds	14 days	Cool to 4°C
Volatile Halogenated Compounds	14 days	Cool to 4°C
Phenois (GCMS – Speciated)	Extract within 7 days, analyse within 40 days	Cool to 4°C

#### 4. Quality Control

All samples analysed by the laboratory are analysed according to the following Quality

Control Schedule:

Inorganic

- 2 x Duplicates per analytical lot of samples (ie 1 duplicate per 10 samples)
- 1 x Method Blank (where appropriate) per 20 samples
- 1 x Standard Reference Material or independent source standard analysed per 20 samples
- 2 x Matrix Spikes (MS) per analytical lot of samples (ie 1 MS per 10 samples).

Organics

- 2 x Duplicates per analytical lot of samples (ie 1 duplicate per 10 samples)
- 1 x Method Blank per lot
- 1 x Single Control Sample (SCS) containing all target compounds per analytical lot of samples
- 1 x Duplicate Control Sample (DCS) containing all target compounds per analytical lot of samples
- 2 x Matrix Spikes (MS) per analytical lot of samples (ie 1 MS per 10 samples)
- Addition and analysis of Surrogate compounds (where appropriate) to all samples.

Compliance to this QC Schedule is reliant upon the submission of appropriate sample volumes.

**Note: Water samples in particular require the submission of additional containers for the analysis of MS and duplicates)**

**5. Reporting**

All results received shall be reviewed by the **Waste Management Co-ordinator**.

**Benefit of Compliance to Procedure:**

- Meeting environmental goal
- Impacts on the natural environment are minimised
- Operational issues identified
- Demonstrated operational competency

**Consequence of Non-Compliance to Instruction:**

- Violations and/or fines from Regulatory Agencies
- Pollution of the environment
- Unresolved operational issues

**Reviewed by:**

**Date:**

**Approved by:**

**Date**



## APPENDIX 9

# Surface Water Quality Monitoring Standard Operating Procedure

### Purpose and Scope

Prevention of contamination entering the stormwater management system should be the first priority and the EMP checklist in Appendix 23 of the PIRMP provides for this. The purpose and scope of the surface water quality monitoring program should effectively monitor and report current surface water character and ensure early detection and reporting of possible pollution of surface water quality.

### Procedure/Standard

Surface water should be sampled on a quarterly basis. The locations of the surface water sampling locations are the drain down gradient and adjacent to the landfill operational area. The parameters to be tested should include the basic leachate indicators

### 1. Preparation

The following equipment is needed to undertake the surface water sampling.

Check	Apparatus/Equipment List
	Rubber gloves
	Sampling pole
	Chain of custody documentation
	Clipboard
	Log sheets
	Calibrated water quality field meters
	Pencils/pens
	Decontamination equipment and water

There are a number of methods that can be used to obtain surface water samples including:

- Immersion of a sample bottle by hand to just below the surface (typically 0.25-0.50m depth), provided that the sampler has on a disposable rubber glove and any surface film is avoided.
- To maintain adequate distance from the sampling point the sample bottle can be held by the sampling pole. (preferred method).

### 2. Surface Water Sample Containers

Bottle Type	Test Parameter
2 x 40 ml vials (fill to the top)	AOX (Absorbable Organic Compounds)
1 x 1 litre sulphuric acid preserved (Purple label)	Ammonia, Nitrate, Total Phenols
1 x 40 ml glass vial sulphuric acid preserved (Purple label)	Total Organic Carbon (TOC)
1 x 1 litre natural plastic (Green label)	Alkalinity, pH, Calcium, Magnesium, Sodium, Potassium, Chloride, Sulphate, Fluoride
1 x 250ml Nitric Acid preserved plastic bottle – <b>unfiltered</b> (Red label)	Total heavy metals

### 3. Sample Acquisition

- Take a bottle from the customised sampling kits (eskies) that the lab has provided. The bottles needed to test the analytes are colour coded as shown in Table 2.
- Clearly label the bottle with sample number, location, sampler's name, date and time.
- Care should be taken not to touch the lid or the inside of the bottle as the bottles have been preserved and cleaned.
- Take the right sample container and plunge the bottle upside down to about a depth of 0.25-0.50m below the surface. Quickly turn the bottle upright and allow the bottle to fill.
- Care should be taken so that no liquid spills onto your skin
- Fasten lid tightly and place in cooler with frozen ice bricks (must be kept at 4°C)
- Field observations should be recorded in the sample field record sheet (attached). Observations would include smell, weather conditions etc
- When using a field meter ensure it has been calibrated. Record calibration method. Field measurements should be made of pH, temperature and conductivity.
- Use deionised water to rinse the field recorder between uses
- All samples should be stored as shown in Table 3 below. However all samples should be sent to the lab immediately.

**Table 3 Sample storage and transportation conditions**

Analyte	Holding Time (time before analysis)	Storage
Absorbable Organic Compounds (AOX)	14 days	Cool to 4°C
Alkalinity	14 days	Cool to 4°C
Ammonia	28 days	Cool to 4°C
Calcium	6 months	Cool to 4°C
Chloride	28 days	Cool to 4°C
Fluoride	28 days	Cool to 4°C
Iron	6 months	Cool to 4°C
Magnesium	6 months	Cool to 4°C
Manganese	6 months	Cool to 4°C
Nitrate	28 days	Cool to 4°C
pH	6 hours	Cool to 4°C
Total Phenolics (APHA Method, Non Speciated)	28 days	Cool to 4°C
Potassium	6 months	Cool to 4°C
Sodium	6 months	Cool to 4°C
Sulphate	28 days	Cool to 4°C
Total Organic Carbon	28 days	Cool to 4°C
Suspended Solids	7 days	Cool to 4°C
Poly Aromatic Hydrocarbons	Extract within 7 days, analyse within 40 days	Cool to 4°C
Volatile Organic Compounds	14 days	Cool to 4°C
Volatile Halogenated Compounds	14 days	Cool to 4°C
Phenois (GCMS – Speciated)	Extract within 7 days, analyse within 40 days	Cool to 4°C

#### 4. Quality Control

All samples analysed by the laboratory are analysed according to the following Quality Control Schedule:

##### Inorganic

- 2 x duplicates per analytical lot of samples (ie one duplicate per 10 samples)
- 1 x Method Blank (where appropriate) per 20 samples
- 1 x Standard Reference Material or independent source standard analysed per 20 samples
- 2 x Matrix Spikes (MS) per analytical lot of samples (ie one MS per 10 samples)

##### Organics

- 2 x duplicates per analytical lot of samples (ie one duplicate per 10 samples)
- 1 x Method Blank per lot
- 1 x Single Control Sample (SCS) containing all target compounds per analytical lot of samples
- 1 x Duplicate Control Sample (DCS) containing all target compounds per analytical lot of samples
- 2 x MS per analytical lot of samples (ie one MS per 10 samples)
- Addition and analysis of surrogate compounds (where appropriate) to all samples.

Compliance to this QC Schedule is reliant upon the submission of appropriate sample volumes.

**NB:** Water samples in particular require the submission of additional containers for the analysis of MS and duplicates.

Please inform the laboratory of your QC requirement prior to ordering sample containers.

#### 5. Reporting

All results received shall be reviewed by the **Team Leader Waste Operations MCC** and reported to the NSW Environment Protection Authority (EPA) should characteristics of leachate be detected.

##### **Benefit of Compliance to Procedure:**

- Impacts on the natural environment minimised
- Operational issues identified
- Demonstrated operational competency

##### **Consequence of Non-Compliance to Instruction:**

- Violations and/or fines from Regulatory Agencies
- Pollution of the environment
- Unresolved operational issues

**Reviewed by:**

**Date:**

**Approved by:**

**Date**

## APPENDIX 10

# Operation and Maintenance of Sediment Control Systems/Water Quality Basins

## Standard Operating Procedure

**Purpose and Scope** To ensure that the surface water control system, including the stormwater dam, is operating effectively within its design objectives to control erosion and sediment deposition.

To define the procedure for the operation and maintenance of the water quality control basins.

**Definition:** “Water quality control structures” are small dams/filter ponds designed to intercept sediment laden runoff and retain a significant portion of the sediment thereby protecting downstream waterways from pollution and excessive sedimentation. This retention of sediment is generally achieved by the settling of the suspended sediment from the stormwater flow. The sediment and water quality control basin (retention dam) is found at the location described in the site services/infrastructure plan.

**Primary Environmental Goal** – Detecting water pollution. Benchmark technique 7.

### Procedure/Standard

Non vegetated and unsealed areas such new waste disposal stages, recently completed filling areas, stockpile areas and roads have a high potential to release sediments into stormwater, and sedimentation and erosion controls need to be established to minimise this risk.

Surface water management can be achieved by:

- Control site clearing to minimise exposed areas
- Applying mulch to erodible surfaces
- Revegetation of degraded areas and slopes
- Revegetation of final capping
- Establishing silt barriers to catch drains
- De-silting sedimentation basins and ensuring detention of stormwater inflows
- Limit access to non landfill areas to protect existing vegetation
- Visual inspection of surface water control systems after rain events
- Drainage control by using perimeter banks, bunds, diversion channels and drains to divert silt laden flows into controlled dams and basins

### 1. Inspection and Maintenance of Structures

- Routine inspections are to be carried out to assess the need for maintenance and are

primarily concerned with checking the functionality of the stormwater drainage and treatment facilities; items such as drains, drainage pits, box culverts, detention basins and retention systems. Maintenance of these items is most important for the ongoing drainage and treatment of stormwater.

- Water quality basin should be inspected following each storm event and after discharge of stormwater to ensure adequate capacity is maintained in the basin at all times.
- Should the inspection reveal that maintenance of any item is required this is to be reported to **Council's Team Leader Waste Operations** for action.
- Items that are to be subject to routine inspections and form part of the Environmental Management Plan checklist may comprise, but not be limited to, those listed in the attached inspection sheet. The inspection sheet is to be read in conjunction with the overall EMP check list for the facility.
- Marker pegs are to be used to indicate the capacity of sediment control basins. If sediment has accumulated to a point above the marker pegs, a bobcat should be employed to remove the accumulated sediment and restore the capacity of the sediment basin. Relocate the sediment to an area away from the drainage paths.
- Personnel completing the routine inspections should be generally observant of items such as equipment failures, leaking water, scouring and/or signs of blockages, integrity of siltation fences and concentrations of water flow. If such items are observed an immediate inspection for engineering maintenance should be organised.
- Where routine maintenance is repeatedly carried out in one location, the problem should be investigated further during an engineering inspection for maintenance.

## 2. Frequency of Inspection

- Routine inspections for maintenance shall be carried out over the life of the facility.
- Event heavy rain inspections should be carried out as soon as practicable following an intense period of rainfall (ie greater than 50mm over 48 hours).

## 3. Records

- Records detailing each of the routine inspections for maintenance should be completed during the inspection and describe in detail any required maintenance.
- The inspection records are to be provided as part of the facility inspection and audit program for the facility.
- Records of any maintenance carried out as a result of the inspection should be completed immediately after the works have been finalised and filed appropriately.

## 4. Personnel

- Routine inspections are required to establish the need for basic maintenance. On this basis such inspections do not require professional engineering knowledge and may be carried out by any responsible person, including site staff, the **Waste Services Field Officer** and the **Waste Management Coordinator**.

**5. Attachments**

A Water Quality Basin Inspection Requirements

**Benefit of Compliance to Procedure:**

- Impacts on the natural environment minimised
- Operational issues identified
- Demonstrated operational competency
- Meeting environmental goal

**Consequence of Non-Compliance to Instruction:**

- Violations and/or fines from Regulatory Agencies
- Pollution of the environment
- Unresolved operational issues

**Reviewed by:**

**Date:**

**Approved by:**

**Date**

## Attachment A - Water Quality Basin Inspection Requirements

Item/Area Min	Routine Inspections for Maintenance	Frequency
Drains/pipes/pits	Inspect surface access points to underground culverts, diversion pit, other pits and pipes as well as surface in the area of the access points. Particular attention should be paid to damage or blockage	6 monthly
	Inspect lining of open drains to determine any scour or damage requiring repair. In particular the connection points from the batter drainages into the stormwater channel need to be investigated for evidence of scour.	6 monthly
	To be visually inspected after heavy rainfall events to ensure they are free of debris and litter.	As required
Batter drainage	Inspect batter drains for evidence of deterioration and scour. This inspection is required for both lined and unlined batter drains, including where the drain crosses benches.	6 monthly
	Inspect batter drains for debris and overgrown vegetation	6 monthly
	To be visually inspected after heavy rainfall events to ensure they are free of debris and litter	As required
Retention system	Inspect dam linings for damage and general condition	6 monthly
	Inspect retention dams for damage or debris collection	6 monthly
	Trash screens to be visually inspected after heavy rainfall events to ensure they are free of debris and litter	As required
Inlet/Outlet culverts	Inspect culverts, headwalls and overflow weirs for signs of deterioration (scouring), blockage or damage	6 monthly#
	Trash screens to be visually inspected after heavy rainfall events to ensure they are free of debris and litter	As required

## APPENDIX 11

# Used Tyre Stockpile Management and Maintenance Standard Operating Procedure

### Purpose and Scope

To define the procedure for management of used tyres which have been stockpiled and are awaiting removal offsite for recycling or disposal so as to minimise the risk of fire. The EPA Environmental Protection Licence includes used tyres into the waste limit but makes no reference to the maximum quantity or number of tyres that can be kept on the site. Good practice would ensure that the quantity of tyres kept on site at any one time was minimal and certainly not exceeding 50 tonnes.

### Procedure/Standard

- Tyres are to be placed on a hardstand area compacted of a depth of at least 900 mm if located above previously placed general waste.
- A safety exclusion area is to be maintained around the stockpile as a retained buffer zone to prevent the spread of fire and to allow fire suppression activities to be undertaken in the event of fire.
- Tyres are to be removed from site on a routine basis to ensure the stockpile is kept to a minimum.
- Fire prevention measures are to be undertaken including signage, servicing of fire fighting equipment and training of personnel in fire fighting techniques.

In the event of a fire –

- Attempt to extinguish a small, controlled fire with equipment on site without endangering facility personnel and equipment. This equipment includes suitable fire extinguisher. When in doubt, evacuate the area and call 000 and request the presence of the Fire Brigade.
- Report any potentially dangerous fire to “000” and request the fire brigade, providing all information they require (ie your name, fire location, type, size, etc)
- As soon as possible notify the **Waste Management Coordinator** of the incident and provide an update of the action initiated to date.
- Keep all unauthorised people away from the area on fire whilst protecting personal safety.
- Report the details of the fire on an Incident Notification Report and refer to the **Waste Management Coordinator**.

### Benefit of Compliance to Procedure:

- Impacts on the natural environment minimised

### Consequence of Non-Compliance to Instruction:



<ul style="list-style-type: none"><li>• Violations and/or fines from Regulatory Agencies</li><li>• Pollution of the environment</li></ul>	
<b>Reviewed by:</b> <b>Date:</b>	<b>Approved by:</b> <b>Date</b>

## APPENDIX 12

# Green Waste Stockpile Management and Maintenance Standard Operating Procedure

### Purpose and Scope

To define the procedure for the management of shredded green waste which has been stockpiled and is awaiting use for on-site for erosion control, as a revegetation medium on the leachate irrigation area or for transporting offsite so as to minimise the risk of fire and/or odour generation.

### Procedure/Standard

- Stockpiles and windrows of shredded green waste are to be limited to between 1.5 and 2.0m in height and 3-4m in width.
- Stockpiles and windrows of shredded green waste are to be visually inspected weekly and an assessment of the temperature and odour conditions within the stockpile made.
- If heating in a stockpile is suspected a temperature probe should be inserted into the stockpile and allowed to remain undisturbed until the temperature reading remains static.
- Stockpiles and windrows of mulch are to be turned when temperatures within the stockpile exceed about 50°C.

**ALTERNATIVELY** water is to be added to the stockpile so as to reduce the core temperature.

### Benefit of Compliance to Procedure:

- Impacts on the natural environment minimised

### Consequence of Non-Compliance to Instruction:

- Violations and/or fines from Regulatory Agencies
- Pollution of the environment

**Reviewed by:**

**Date:**

**Approved by:**

**Date**

## APPENDIX 13

<h1 style="margin: 0;">Fire at the Tipping Face or outside area</h1> <h2 style="margin: 0;">Standard Operating Procedure</h2>	
<p><b>Purpose and Scope</b></p> <p>To define a procedure for responding to a fire that is detected at the tipping face or elsewhere on the landfill.</p> <p><b>Primary Environmental Goal</b> – Adequate Fire Fighting Capacity. Benchmark technique 38.</p>	
<p><b>Procedure/Standard</b></p> <p><b>Fire</b></p> <ol style="list-style-type: none"> <li>1. Attempt to extinguish a small, controlled fire with equipment on site without endangering facility personnel and equipment. This may include the use of a fire extinguisher, water pump/trailer or isolating the source of the fire and covering with earth by using on-site plant.</li> </ol> <p>When in doubt, evacuate area and immediately call '000' and request the presence of the Fire and Rescue NSW. <b>Note: If using a fire extinguisher, be sure to use the correct extinguisher for the fire type.</b></p> <ol style="list-style-type: none"> <li>2. Report any potentially dangerous fire to '000' (Fire Brigade) providing all information required (ie your name, fire location, type, size etc).</li> <li>3. As soon as possible notify the <b>Team Leader Waste Operations</b> of the incident and provide an update of the action initiated to date.</li> <li>4. Keep all unauthorised people away from the area where the fire is burning.</li> <li>5. Report the details of the fire on a Pollution Incident Report form and refer to the <b>Team Leader Waste Operations</b></li> <li>6. A copy of the Pollution Incident Report form is to be referred to the council.</li> </ol>	
<p><b>Benefit of Compliance to Procedure:</b></p> <ul style="list-style-type: none"> <li>• Meeting environmental goal.</li> <li>• Employee's safety protected</li> <li>• Health and safety of public/facility user protected</li> <li>• Minimise damage to public property</li> </ul>	
<p><b>Consequence of Non-Compliance to Instruction:</b></p> <ul style="list-style-type: none"> <li>• Injury/death to public/facility user/staff</li> <li>• Damage to public property</li> <li>• Violations and/or fines from Regulatory Agencies</li> </ul>	
<p><b>Reviewed by:</b></p> <p><b>Date:</b></p>	<p><b>Approved by:</b></p> <p><b>Date</b></p>

## APPENDIX 14

<b>Chemical Spill Response Standard Operating Procedure</b>
<p><b>Purpose and Scope</b></p> <p>The purpose of this procedure is to define an incident response in the event of a chemical spill from ruptured or leaking chemical containers at the Bulahdelah Waste Management Centre.</p>
<p><b>Procedure/Standard</b></p> <ul style="list-style-type: none"><li>• Chemical spillage</li></ul> <p>Actions required in response to such an event may vary and it will be the role of the site contractor <b>Resource Recovery</b> to determine and initiate appropriate actions. The following notes will form the basis of that decision making process.</p> <ul style="list-style-type: none"><li>• Depending on the scale of the spillage, it may be necessary to make first contact with emergency services by dialling 000 and advise of the type of emergency and the assistance needed ( Fire Brigade – Hazmat)</li><li>• Secure the affected area(s) by using barricades and bunting.</li><li>• If necessary, initiate evacuation of staff, members of the public and others that may be on site, including contractors</li><li>• Engage measures to restrict vehicles entering the site</li><li>• Where possible, confine the incident and prevent the spread of its effects without endangering personnel. This may include building sand bag bunding, rotating the container or plugging the leak.</li><li>• Cover drainage swales and/or place temporary bunding</li><li>• For small spills, use the spill kit kept on site.</li><li>• Advise the <b>Team Leader Waste Operations</b> of all actions taken or proposed.</li><li>• Obey the instructions from the emergency services who may attend the site.</li><li>• Notify neighbours who may be affected by the incident if appropriate or await instructions from the <b>Team Leader Waste Operations</b>.</li><li>• A copy of the Pollution Incident Report form is to be referred to the <b>Team Leader Waste Operations</b></li></ul>
<p><b>Benefit of Compliance to Procedure:</b></p> <ul style="list-style-type: none"><li>• Limit environmental damage</li><li>• Health and safety of public/facility user protected</li></ul>
<p><b>Consequence of Non-Compliance to Instruction:</b></p>

- Extended environmental damage
- Injury/death to employee
- Injury/death to public/facility user
- Violations and/or fines from Regulatory Agencies

**Reviewed by:**

**Date:**

**Approved by:**

**Date**

## APPENDIX 15

# Storage/Handling of Chemicals and Hazardous Substances

## Standard Operating Procedure

### Purpose and Scope

The use of chemicals and hazardous substances the Bulahdelah Waste Management Centre will be limited to paints, household chemicals, lead acid batteries, gas cylinders and small quantities of herbicides/pesticides for controlling pests within the site facilities.

Dangerous Goods legislation requires licensing of premises when storage exceeds specified quantities of dangerous goods. The aim of this procedure is to assist in the identification, handling, storage and disposal of hazardous substances. It includes the use of labels and Material Safety Data Sheets (MSDS), provision of information and training to personnel as well as storage and disposal requirements for use of hazardous substances.

The procedure addresses the management of hazardous substances imported to the site by users of the waste management facility.

### Procedure/Standard

#### 1. Purchase of Materials

When a hazardous substance is purchased the supplier must provide sufficient information to ensure that the substance can be handled, stored, transported, used, processed and disposed of safely. Full safety data in the form of a current approved MSDS must be provided by the supplier on the first occasion that a hazardous substance is supplied. The manufacturer shall review and revise the MSDS every five years as a minimum. Suppliers are required to provide MSDS on request.

Whenever possible a non hazardous alternative shall be selected. However, where no such alternative is available the most suitable, but least harmful or dangerous, shall be considered.

#### 2. Labelling of Hazardous Substances

Suppliers shall ensure that all containers of hazardous substances for use are appropriately labelled. Where a hazardous substance is decanted and not used or further processed immediately, the container into which the substance is decanted is labelled with the product name and risk and safety information (this does not apply to substances which are decanted and used immediately). Hazardous substance containers shall remain appropriately labelled until they are cleaned and no longer contain any hazardous substance. All containers shall be in suitable condition. Damaged or corroded containers must not be accepted.

#### 3. Material Safety Data Sheets

Material Safety Data Sheets should contain the following information as a minimum:

- State if the product is classified as a hazardous substance as a minimum

<ul style="list-style-type: none"> <li>• Safety Equipment to be worn by the operator when using the substance</li> <li>• Storage requirements including compatibility with other substances</li> <li>• Requirements for transport and disposal</li> <li>• Procedures for cleanup and disposal of spilt product and waste containers</li> <li>• First aid procedures if the hazardous substance comes into contact with the operator’s skin, eyes or if the substance is swallowed or ingested by the operator.</li> </ul> <p>A register of MSDSs shall be maintained at the facility and made available for use by all employees at site. All MSDS shall be readily accessible to all employees with potential exposure to those substances.</p> <p><b>4. Storage</b></p> <p>Flammable goods need to be stored away from sources of ignition and spillage containment is required. Dangerous goods legislation requires segregation of different classes of dangerous goods and licensing is required when certain quantities are exceeded. Paints in containers less than 5 litres would generally not require licensing.</p> <p><b>5. Handling Hazardous Substances and Dangerous Goods</b></p> <ul style="list-style-type: none"> <li>• Hazardous substances bought to the facility shall be segregated and taken to the designated storage areas located within the facility. These substances need to be adequately segregated to prevent fires or other dangerous occurrences.</li> <li>• Examples of these wastes include paints, household chemicals and gas cylinders.</li> <li>• These materials and substances will be collected on regular basis under contract and transferred for disposal at an appropriate facility. These substances are not to be disposed of at Council’s landfills.</li> </ul>	
<p><b>Benefit of Compliance to Procedure:</b></p> <ul style="list-style-type: none"> <li>• Employee’s safety protected</li> <li>• Health and safety of public/facility user protected</li> <li>• Impacts on the natural environment are minimised</li> </ul>	
<p><b>Consequence of Non-Compliance to Instruction:</b></p> <ul style="list-style-type: none"> <li>• Injury/Death to employee</li> <li>• Injury/Death to public/facility user</li> <li>• Violations and/or fines from Regulatory Agencies</li> </ul>	
<p><b>Reviewed by:</b></p> <p><b>Date:</b></p>	<p><b>Approved by:</b></p> <p><b>Date</b></p>

## APPENDIX 16

<b>Inspection of Loads Standard Operating Procedure</b>	
<b>Purpose and Scope</b>	<p>To ensure that only <b>Permitted Waste</b> is accepted at the Bulahdelah Waste Management Centre through the adoption and implementation of appropriate vehicle inspection procedures.</p> <p>Primary Environmental Goal – Assuring quality of incoming waste. Benchmark technique 21.</p>
<b>Procedure/Standard</b>	<p>The gatehouse operator shall conduct a vehicle inspection and waste assessment to ensure that only Permitted Wastes are accepted at the facility. The minimum requirements of the inspection are:</p> <ol style="list-style-type: none"><li>1. Exhibit prominent signage at the entrance to the facility defining the types of wastes that will be accepted and those that are excluded.</li><li>2. In-coming vehicles are to have the loads uncovered at the designated area prior to entering the control point. All loads shall be subject to a visual inspection to ensure no excluded wastes are contained within the loads. The gatehouse operator shall also enquire to the customer whether hazardous materials, such as lead acid batteries, gas bottles, solvents, paints etc, are contained within the load. Empty chemical containers should be checked for triple rinsing before accepting for recycling.</li><li>3. Any vehicles suspected of containing excluded wastes shall be refused entry until verified otherwise. The gatehouse operator shall require and collect appropriate evidence from the driver of the incoming vehicle, as necessary, to substantiate that the waste is not an excluded waste eg provision of a test certificate.</li><li>4. Where wastes are contained in enclosed vehicles, eg private waste collection vehicles, the gatehouse operator shall identify the source and nature of the waste by inquiry.</li><li>5. At the tipping face of the waste disposal areas the discharge of wastes from enclosed vehicles is to be inspected by the plant operator. No sealed containers shall be deposited without substantiation that the contents are acceptable for disposal.</li><li>6. All private waste collection and disposal companies servicing commercial and industrial premises and using the facility shall be required to enter into an agreement with the customer regarding disposal of collected wastes. This agreement shall include the identification of excluded wastes and undertakings by the customer not to deposit such wastes in the collection receptacle.</li></ol>
<b>Benefit of Compliance to Procedure:</b>	<ul style="list-style-type: none"><li>• Meeting environmental goal</li><li>• Employee's safety protected</li><li>• Health and safety of public/facility user protected</li><li>• Impacts on the natural environment minimised</li></ul>



**Consequence of Non-Compliance to Instruction:**

- Injury/Death to employee
- Injury/Death to public/facility user
- Violations and/or fines from Regulatory Agencies

**Reviewed by:**

**Date:**

**Approved by:**

**Date**

## APPENDIX 17

<b>Clean Up of Fuel/Oil Spills Standard Operating Procedure</b>
<p><b>Purpose and Scope</b></p> <p>To define the procedure for the containment, management and cleanup of minor fuel/oil spills at the Bulahdelah Waste Management Centre.</p>
<p><b>Procedure/Standard</b></p> <p><b>1.1.1.3 Definitions</b></p> <p>Fuel/oil spills refers to discharges of petroleum compounds, including petrol, diesel, lubricating oils, hydraulic oils, greases etc. Spillage of oils and fuels may arise from leaking machinery (eg burst hydraulic hoses) and spillage of liquids from containers deposited or stored at the site.</p> <p>It is important to take prompt action to clean up any spilt oil or fuel to minimise the risk of accidents occurring and to prevent contamination of local waterways should the spilt fuel/oil enter the site drainage system.</p> <p>Equipment available to clean up oil spills include oil absorbent pads, “kitty litter”, oil absorbent booms and drain blocking pads. Additional materials may be obtained by contacting the <b>Team Leader Waste Operations</b>. This equipment or “spill kit” should be stored close to point of use or in a readily transportable form eg on a trailer or in a wheelie bin.</p> <p>The steps in this procedure shall be as follows:</p> <ol style="list-style-type: none"><li>1. For mechanical equipment, shut down the item of plant and plug the leak or crimp the hydraulic hose if possible and quickly. For leaking containers, address the source of the leak, but at all times, avoid contact with the material.</li><li>2. Isolate adjacent drainage points.</li><li>3. Dam and contain the spill using the contents of the spill kit.</li><li>4. Recover and absorb.</li></ol> <p>Once the source of the leak is established, undertake all efforts to prevent further flow, eg if leak is from an oil drum, roll drum so that leak areas is uppermost. If leak is from pipe from oil truck, close valves etc. All attempts should be made to plug the leak.</p> <p>Stop all human and vehicular traffic through the spill area. Isolate sources of ignition and advise fire authorities (and licensing authorities). Mobilise fire extinguishers, if suitable.</p> <p>Contain the spill as follows:</p> <ul style="list-style-type: none"><li>• Protect drains by forming barriers and sealing drainage grates (eg using strong plastic bags partially filled with sand or water). The absorbent socks and pillows can be used to block off drains allowing water to go through but trapping the oil. Absorbent material has limited capacity and needs to be replaced regularly.</li><li>• If possible stop the spill from spreading by deflecting the oil into another container.</li><li>• Form barriers using absorbent material and place on the edge of the spill. (or use any other suitable and available materials, eg soil, sand).</li></ul>

<ul style="list-style-type: none"> <li>• All used absorbent material is to be placed in drums or skips for transport and disposal to the landfill area. Sand contaminated by oil is to be stockpiled on plastic sheeting in a bunded area.</li> <li>• If sufficient product exists, hand pumps should be used and product transferred to a suitable container (lined drums, skips or tankers). Avoid the use of electrical equipment that could be the source of ignition.</li> </ul>	
<p><b>Benefit of Compliance to Procedure:</b></p> <ul style="list-style-type: none"> <li>• Employee's safety protected</li> <li>• Health and safety of public/facility user protected</li> <li>• Impacts on the environment are minimised</li> </ul>	
<p><b>Consequence of Non-Compliance to Instruction:</b></p> <ul style="list-style-type: none"> <li>• Injury to employee</li> <li>• Injury to public/facility user</li> <li>• Environmental pollution</li> <li>• Violations and/or fines from regulatory agencies</li> </ul>	
<p><b>Reviewed by:</b></p> <p><b>Date:</b></p>	<p><b>Approved by:</b></p> <p><b>Date</b></p>

## APPENDIX 18

<b>Dust Management Standard Operating Procedure</b>	
<b>Purpose and Scope</b> The purpose of this procedure is to define the procedure for controlling the creation and distribution of dust at the Bulahdelah Waste Management Centre.	
<b>Procedure/Standard</b> Dust can arise from a number of sources in the operation of a waste management facility and these include unsealed roads, previously capped and un-vegetated areas, from shredding of green waste, concrete crushing and the movement of stockpiles of dry materials. It is the responsibility of <b>Council's staff</b> to ensure preventative measures are put in place to control the generation of dust. Such measures include – <ul style="list-style-type: none"><li>• Wetting unsealed roads</li><li>• Applying shredded green waste to capped areas within the landfill operations areas.</li><li>• Wetting piles of green waste immediately prior to shredding</li><li>• Operating mist sprays where concrete or hard rock are being crushed</li></ul>	
<b>Benefit of Compliance to Procedure:</b> <ul style="list-style-type: none"><li>• Mitigating the likelihood of a pollution incident</li><li>• Adherence to landfill protocols</li></ul>	
<b>Consequence of Non-Compliance to Instruction:</b> <ul style="list-style-type: none"><li>• Complaints from adjoining property owners</li><li>• Improper use of landfill</li></ul>	
<b>Reviewed by:</b> <b>Date:</b>	<b>Approved by:</b> <b>Date</b>

## APPENDIX 19

<b>Odour Management Standard Operating Procedure</b>	
<b>Purpose and Scope</b> The purpose of this procedure is to define the procedure for controlling excessive odours at the Bulahdelah Waste Management Centre.	
<b>Procedure/Standard</b> <p>Odour can arise from a number of sources in the operation of a waste management facility and these include uncovered waste, composting of organic material that includes food waste, landfill gas, animal carcasses, exposing anaerobic decomposing materials, sewer sludge and disturbed areas of previously placed waste.</p> <p>It is the responsibility of the <b>Council staff</b> to ensure preventative measures are put in place to control the generation of odour. Such measures include –</p> <ul style="list-style-type: none"><li>• Ensuring the examination of incoming loads is undertaken so that only permitted wastes are accepted</li><li>• Placing of daily cover (VENM) at the end of the pushing up and compaction operations, ensuring the VENM completely covers the placed waste and is to a depth of at least 150 mm.</li><li>• Animal carcasses are buried deep within the waste mass</li><li>• Routine inspections are undertaken in accordance with the EMP checklist (see <b>Appendix 23</b>) to ensure there are no areas of exposed waste resulting after storm events or site activities</li></ul>	
<b>Benefit of Compliance to Procedure:</b> <ul style="list-style-type: none"><li>• Mitigating the likelihood of a pollution incident</li><li>• Adherence to landfill protocols</li></ul>	
<b>Consequence of Non-Compliance to Instruction:</b> <ul style="list-style-type: none"><li>• Complaints from adjoining property owners</li><li>• Improper use of landfill</li></ul>	
<b>Reviewed by:</b> <b>Date:</b>	<b>Approved by:</b> <b>Date</b>

## APPENDIX 20

# Covering of Waste/Litter Control Standard Operating Procedure

### Purpose and Scope

To define a procedure for the covering of waste/litter at the Bulahdelah Waste Management Centre to ensure waste/litter is controlled in an acceptable manner.

**Primary Environmental Goal** – Preventing degradation of local amenity. Benchmark technique 33.

### Procedure/Standard

The following covering frequency is applicable to the Bulahdelah Waste Management Centre

#### Covering of Waste –

- The purpose of daily cover is to control litter, flies, rodents, birds and odour, to reduce the risk of fire and to improve the visual appearance of the landfill.
- The waste is to be covered with 150mm of inert soil at the conclusion of pushing up and compacting operations. The material selected should preferably be free draining of a low clayey content. Highly permeable daily cover materials may be difficult to strip from the advancing the tipping face, thus ensuring waste is placed against waste.
- It is important to thoroughly compact the waste prior to the placement of the cover material. A uniform, even surface will allow the placement of a controlled thickness of soil whereas an uncompacted or uneven surface results in a high percentage of soil being used.
- The cover material previously placed over the underlying layer of waste should be bladed off to expose the waste such that the newly placed waste is in direct contact with the old waste. The cover may be removed by a traxcavator or similar equipment.

#### 1. Windows in Cover Material

The development of 'windows' within the daily cover layers as the landfill is progressively raised is to allow the vertical migration of leachate so it does not become 'perched' within the waste mass. The ready migration of leachate through a waste mass (including recirculated leachate) encourages biodegradation and reduces the time for waste to stabilise.

#### 2. Litter Control

To minimise the potential migration (off site) of litter the following measures shall be implemented:

- Waste will be compacted and covered as per the covering frequency indicated above.
- Litter fences are to be placed around the active tipping area and routine inspections of litter/perimeter fences and litter pick-ups undertaken as required.
- Signage will be placed at the entry/exit points to advise customers that if they drop or transport waste in a manner that could result in littering they may be liable for prosecution.

<ul style="list-style-type: none"> <li>• Vehicles transferring rubbish to the site must have the waste material covered at all times.</li> </ul>	
<p><b>3. Reporting</b></p> <p>Non conformances shall be reported in the weekly inspection checklist. Major non conformances shall be reported to the <b>Team Leader Waste Operations</b> within 48 hours of the non conformance.</p>	
<p><b>Benefit of Compliance to Procedure:</b></p> <ul style="list-style-type: none"> <li>• Meeting the environmental goal.</li> <li>• Impacts on the natural environment are minimised</li> </ul>	
<p><b>Consequence of Non-Compliance to Instruction:</b></p> <ul style="list-style-type: none"> <li>• Violations and/or fines from Regulatory Agencies</li> <li>• Pollution of the environment</li> </ul>	
<p><b>Reviewed by:</b></p> <p><b>Date:</b></p>	<p><b>Approved by:</b></p> <p><b>Date</b></p>

## APPENDIX 21

# Facility Evacuation Standard Operating Procedure

### Emergency Response

1. Upon notification of an incident the Chief Warden (**Resource Recovery**) determines the need for evacuation.
2. Chief Warden contacts by telephone the emergency services by dialing '000' providing all information they require (i.e., your name, incident type, size, etc.).
3. Chief Warden delivers evacuation advice to all personnel and facility users on site.
4. The Chief Warden initiates measures to restrict vehicles entering the facility.
5. The Chief Warden determines safe evacuation routes and direct personnel and facility users to the Primary Evacuation area. Where necessary unlock gates on evacuation routes so as to provide for movement to the Primary Evacuation Point or the Secondary Evacuation Point.
6. The Chief Warden provides direction to Primary Evacuation Point.
7. Prior to leaving the facility the Chief Warden accounts for all personnel including checking of all work areas.
8. Upon arrival at the Primary Evacuation Point the Chief Warden is to;
  - (a) Confirm the presence or otherwise of all personnel/staff.
  - (b) Determine the suitability of the Primary Evacuation Area. If necessary initiate movement to Secondary Evacuation Point or Post Evacuation Assembly Area.
  - (c) Upon their arrival, brief the emergency services including the status of facility personnel.
  - (d) Co-ordinate the movement of personnel to the Post Evacuation Assembly Area.
  - (e) Brief the **Team Leader Waste Operations** on the incident and provide an update of the action initiated to date.
9. The Chief Warden is to report the details of the event on an Incident Notification Report Form and refer to the **Team Leader Waste Operations**

Reviewed by:  
Approved by:

Date:  
Date:



## Emergency Checklist for Chief Warden

Name of Chief Warden:																					
Time at which potential emergency was raised:																					
Location of potential emergency:																					
Description of potential emergency:																					
If Emergency is declared:																					
Emergency declared	Time																				
ALERT signal activated	Time																				
If fire exists phone fire brigade on 000																					
If other emergency exists phone relevant emergency authority on 000  ambulance  police																					
If site evacuation is necessary:																					
Evacuation signal activated	Time																				
Deputy/ Area Wardens report evacuation is complete:																					
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Area</th> <th style="width: 15%;">Warden</th> <th style="width: 45%;">Area Evacuated</th> <th style="width: 25%;">Comments</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>		Area	Warden	Area Evacuated	Comments																
Area	Warden	Area Evacuated	Comments																		
* Made contact with emergency service	Time																				

## APPENDIX 22

# Pollution Incident Reporting Standard Operating Procedure

### Purpose and Scope

The purpose of this procedure is to define the pollution incident reporting requirements which are applicable to the operation of the Bulahdelah Waste Management Centre. A pollution incident is defined as 'material harm to the environment' as described in section 147 of the Act. Material harm includes on-site harm, as well as harm to the environment beyond the premises where the pollution incident occurred. A 'pollution incident' includes a leak, spill or escape of a substance, or circumstances in which material harm is likely to occur.

### Note

There is a duty to report pollution incidents under section 148 of the Protection of the Environment Operations Act 1997 (POEO Act) in addition to EPL condition R2 which reads "The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment as soon as practicable after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act. Notifications must be made by telephoning the Environment Line service on 131 555.

### Note

Use Attachment A for general pollution incident reporting

Use Attachment B for leachate discharge/overflow reporting

**Primary Environmental Goal** – Preventing degradation of local amenity. Benchmark technique 36.

### Procedure/Standard

1. If a pollution incident occurs, all necessary action should be taken to minimise the size and any adverse effects of the release as a first response. (sand bagging, application of spill kit, shutting off the source, construction of temporary bunds/dam) Guidance can be found by referring to the SOP within the facility's Pollution Incident Response Management Plan.
2. If the incident presents an immediate threat to human health or property, Fire and Rescue NSW, the NSW Police and the NSW Ambulance Service should be contacted for emergency assistance - phone 000.
3. At an appropriate time, either during or after an incident, the company staff member, supervisor or Council officer shall record the following;
  - Type and nature of the incident (what happened)
  - Notification source and details
  - Details of the conversations that may ensue with staff, emergency services and authorities
  - Time events

- Actions taken to mitigate the incident
  - Details of other actions during the course of the incident management
4. As soon as possible during or immediately following an incident notify the **Waste Management Coordinator** of the incident and provide an update of the action initiated. Council to notify the EPA by telephoning the Environment Line service on 131 555
  5. The company staff member (**Resource Recovery**) or Council officer is to report the details of the incident on a Pollution Incident Notification Form within 24 hours of the incident occurring and the report is to be referred to the **Waste Management Coordinator** for recording and reporting to the EPA.

#### 1.1.1.4 Post Incident

Documentation of incident activities is of critical importance following the incident. All records and forms used during the incident to document activities must be retained for future reference.

Following an incident, the company (**Resource Recovery**) or responsible Council officer (**Waste Services Field Officer**), will have the responsibility for collecting all records and forms used during the incident. These will be used for several purposes, such as incident investigation, insurance claims and potential legal actions.

The company **Resource Recovery** or responsible Council officer (**Waste Services Field Officer**), must, within 24 hours of being notified of a pollution incident, prepare a report documenting activities that took place during the incident.

This report, and all related documentation, will be submitted to the **Waste Management Coordinator** for review and necessary follow up actions.

Where there is potential for litigation in relation to the incident the **Waste Management Coordinator** shall prepare a written report for referral to the Council's legal representative

#### Attachment:

- A Pollution Incident Report form
- B Leachate discharge/overflow Reporting Form

#### Benefit of Compliance to Procedure:

- Details of incident are readily available including information regarding incident response activities
- Demonstrated operational competency
- Meeting environmental goal

#### Consequence of Non-Compliance to Instruction:

- Violations and/or fines from Regulatory Agencies

## POLLUTION INCIDENT REPORT FORM (A)

Date of Incident:		Time of Incident:	
Nature of incident Eg: Leachate discharge, Fire, Chemical spill.			
Location of incident Where did it occur?			
Type and quantity of material involved			
Outline action initiated in response to incident			
Was it necessary to initiate the major incident notification protocol?			
Was the Community Notification and Communications Plan activated?			
Was action in accordance with SOP? If not - why?			
Is there a need to review SOP in response?			
Date and time of details provided to Team Leader, Waste - GTCC			
Name of Reporting Person			
Management Authorization.....			
Dated.....			

## POLLUTION INCIDENT REPORT FORM (B)

### Leachate Discharge/Overflow

<b>Date of Incident:</b>		<b>Time of Incident:</b>	
Nature of incident Eg: leachate dam overflow, leachate spring eruption.			
Details of person reporting or witnessing the leachate discharge or overflow			
Location of incident Where did it occur?			
Date and time of commencement of the discharge			
Assessed volume of discharge or overflow			
Period of time the discharge or overflow occurred			
Weather conditions at the time of the discharge or overflow.			
Daily rainfall in mm on the day of the discharge. Rainfall for the week prior to the discharge			
Most recent monitoring results of the chemical composition of the leachate.	Attach analytical results		
Explanation as to why and how the discharge occurred			
Plan of Action to prevent a similar discharge			
Name of Reporting Person			
Management Authorization.....			
Dated.....			

## APPENDIX 23

### EMP REPORTING CHECKLIST

#### Environmental Management Plan

The following procedures define the protocol for undertaking site inspection and audits at the Bulahdelah Landfill & Waste Transfer Station with the aim of:

- minimising the likelihood of a pollution incident occurring
- identifying non-conformance with EPA licence conditions and to implement corrective actions where necessary
- identifying non-conformance with the Environmental Management Plan (EMP) and the implementation of corrective actions

Auditing and Inspection Program – Overview		
Type of Audit	Frequency	Responsibility
Site Inspection	Daily, weekly, monthly, quarterly and after a rainfall event that causes significant run-off (>25mm event)	Site contractor/ MCC Waste Services Field Officer
Site Audit	Quarterly, six monthly	MCC Waste Management Coordinator
EMP Audit	Annual	MCC Waste Management Coordinator

The inspection and auditing functions are to be undertaken in accordance with the following requirements:

<b>(1) Landfill</b>								
Midcoast Council, Bulahdelah Landfill Site Inspection Checklist – Landfill								
Date:						Inspected by:		
Issue	Inspection Frequency and Acknowledgement					Satisfactory Y/N	Action Taken	Comments
	Monthly	Week 1	Week 2	Week 3	Week 4			
Perimeter fence line secure and intact	Monthly							
Stormwater retention basins – no evidence of scouring at discharge points	Monthly/ After rain							
Site re-vegetation areas are in good condition – no exposed surfaces, erosion, leachate eruptions	Monthly							
Site vegetation control – no evidence of weed infestation	Monthly							
Intermediate cover applied to filled areas > 90 days. Covered area graded to stormwater management system. No ponding.	Quarterly							

**(1) Landfill (continued)**Midcoast Council, Bulahdelah Landfill  
Site Inspection Checklist – Landfill

Date:			Inspected by:		
Issue	Inspection Frequency and Acknowledgement		Satisfactory Y/N	Action Taken	Comments
No evidence of erosion of the intermediate capping	Monthly/ After rain				
No evidence of leachate eruption through the capped zone/landfill toe	Monthly/ After rain				
Leachate dam maintained at minimal level. Overflow leachate dam empty	Weekly				
Mobile leachate pump operational and routine servicing undertaken	Monthly				
Pump discharge lines intact. No leakages when under pressure	Monthly				
Leachate irrigation sprays operating satisfactorily. No blockages, no overspray.	Monthly				
Leachate irrigation area vegetation area intact. No leachate run-off to adjacent water way.	Monthly				
Stormwater diversion berms	Monthly				



intact. Silt fences secure								
Tipping face being kept to minimum size and configured and shaped for optimal waste placement. Leachate diversion berms in place and functional	Weekly	Week 1	Week 2	Week 3	Week 4			
Waste pushed up and cover applied at the conclusion of the operation. Stockpile of daily cover adequate for two weeks covering.	Weekly	Week 1	Week 2	Week 3	Week 4			
No evidence of litter eruption through the capped zone	Monthly							

**(1) Landfill (continued)**

Midcoast Council, Bulahdelah Landfill  
Site Inspection Checklist – Landfill

**Date:**

**Inspected by:**

Issue	Inspection Frequency and Acknowledgement					Satisfactory Y/N	Action Taken	Comments
	Weekly	Week 1	Week 2	Week 3	Week 4			
Litter fences in place and no evidence of litter beyond the active tipping area, including within drains, at the fence line and along the access roadway.	Weekly							
Condition and functionality of stormwater infrastructure is intact and operational	Monthly/ After rain							
No evidence of sedimentation discharge downstream of stormwater basin	Monthly/ After rain							
Soil tracking onto road surfaces is minimal	Weekly/ After rain							
No evidence of dust generation around perimeter of site	Weekly							

**(1) Landfill (continued)**

Midcoast Council, Bulahdelah Landfill  
Site Inspection Checklist – Landfill

Date:						Inspected by:			
Issue	Inspection Frequency and Acknowledgement					Satisfactory Y/N	Action Taken	Comments	
No evidence of feral animal activity	Quarterly								
Surface of hardstand areas intact/repairs or rectification required	Monthly								
No evidence of vermin sightings/sound/droppings	Weekly	Week 1	Week 2	Week 3	Week 4				
Record of "Incidents" up to date	Daily	Week 1	Week 2	Week 3	Week 4				
No evidence of fly infestations at tipping face	Weekly	Week 1	Week 2	Week 3	Week 4				

Confirmed by the Contractor and or  
Waste Services Field Officer  
Date:

Satisfactory

Unsatisfactory



Verified by the WM Coordinator  
Date:

Satisfactory

Unsatisfactory

**(2) Resource Recovery**

Midcoast Council, Bulahdelah Waste Transfer Station  
 Site Inspection Checklist – Resource Recovery

Date:						Inspected by:		
Issue	Inspection Frequency and Acknowledgement					Satisfactory Y/N	Action Taken	Comments
	Daily	Week 1	Week 2	Week 3	Week 4			
Unwanted chemicals and hazardous materials properly stored in chemical cabinets. Lead acid batteries on bunded pallets and under cover	Daily	Week 1	Week 2	Week 3	Week 4			
Good housekeeping – site tidy, materials stored appropriately	Daily	Week 1	Week 2	Week 3	Week 4			
Fire extinguisher in place and tags current.  At Tip Shop  At site shed	Weekly	Week 1	Week 2	Week 3	Week 4			

## (2) Resource Recovery (continued)

Midcoast Council, Bulahdelah Waste Transfer Station  
Site Inspection Checklist – Resource Recovery

Date:

Inspected by:

Issue	Inspection Frequency and Acknowledgement					Satisfactory Y/N	Action Taken	Comments
	Weekly	Week 1	Week 2	Week 3	Week 4			
Herbicides and pesticides stored satisfactorily.	Weekly	Week 1	Week 2	Week 3	Week 4			
Fuel containers and oil storage – secured/not leaking/properly sealed/bunded	Weekly	Week 1	Week 2	Week 3	Week 4			
Stockpiles of combustible materials minimised such as plastics, paper, cardboard, oils. Recycling receptacles serviced in accordance with schedule	Daily	Week 1	Week 2	Week 3	Week 4			
Record of Incidents up to date	Daily	Week 1	Week 2	Week 3	Week 4			
Gas bottles are stored in accordance with Workcover and DECCW requirements.	Daily	Week 1	Week 2	Week 3	Week 4			

**(2) Resource Recovery (continued)**

Midcoast Council, Bulahdelah Waste Transfer Station  
 Site Inspection Checklist – Resource Recovery

Date:							Inspected by:	
Issue	Inspection Frequency and Acknowledgement					Satisfactory Y/N	Action Taken	Comments
	Weekly	Week 1	Week 2	Week 3	Week 4			
Litter controlled around the facility								
<p>Confirmed by Resource Recovery</p> <p style="text-align: center;"> <input type="checkbox"/> Satisfactory      <input type="checkbox"/> Unsatisfactory         </p> <p>Date:</p> <p>Verified by the Waste Services Field Officer</p> <p style="text-align: center;"> <input type="checkbox"/> Satisfactory      <input type="checkbox"/> Unsatisfactory         </p> <p>Date:</p>								

### (3) Green Waste Stockpiling and Processing Area

Midcoast Council, Bulahdelah Waste Transfer Station  
 Site Inspection Checklist – Green Waste Stockpiling and Processing Area

Date:						Inspected by:		
Issue	Inspection Frequency and Acknowledgement					Satisfactory Y/N	Action Taken	Comments
Hardstand areas, roads and unloading zone intact and trafficable	Weekly/ After rain	Week 1	Week 2	Week 3	Week 4			
Adjacent stormwater infrastructure clear of debris, litter and sediment accumulations	Weekly/ After rain	Week 1	Week 2	Week 3	Week 4			
No evidence of vermin sightings/sound/droppings	Weekly	Week 1	Week 2	Week 3	Week 4			
Good housekeeping – site tidy – litter collected	Weekly	Week 1	Week 2	Week 3	Week 4			
No evidence of leachate discharge	Weekly	Week 1	Week 2	Week 3	Week 4			

### (3) Green Waste Stockpiling and Processing Area

Midcoast Council, Bulahdelah Waste Transfer Station  
 Site Inspection Checklist – Green Waste Stockpiling and Processing Area

Date:						Inspected by:		
Issue	Inspection Frequency and Acknowledgement					Satisfactory Y/N	Action Taken	Comments
Record of incidents up to date	Daily	Week 1	Week 2	Week 3	Week 4			
Processing of stockpiled green waste is occurring routinely and is moved off site or appropriately retained for site maintenance	Quarterly							
Safety exclusion zones in place during mulching and materials loading	When mulching and loading							
Activities being contained within designated site area	Weekly	Week 1	Week 2	Week 3	Week 4			
Excessive dust not occurring during mulching	When mulching							
Contamination being controlled	Weekly	Week 1	Week 2	Week 3	Week 4			



### (3) Green Waste Stockpiling and Processing Area

Midcoast Council, Bulahdelah Waste Transfer Station  
 Site Inspection Checklist – Green Waste Stockpiling and Processing Area

Date: \_\_\_\_\_ Inspected by: \_\_\_\_\_

Issue	Inspection Frequency and Acknowledgement					Satisfactory Y/N	Action Taken	Comments

Confirmed by the Waste Services Field Officer    
 Date: Satisfactory Unsatisfactory

Verified by the Waste Management Coordinator    
 Satisfactory Unsatisfactory

Date: \_\_\_\_\_

## Six Monthly Site Audit

Midcoast Council, Bulahdelah Landfill & Waste Transfer Station  
Six Monthly Audit Checklist

Date:			Conducted by:		
Issue	Activity Frequency and Acknowledgement		Satisfactory Y/N	Action Taken	Comments
Water quality assessments undertaken (ground water and surface water)	Six Monthly				
Filling Plan implemented in accordance with the approved design	Quarterly				
Intermediate cover applied to filled areas	Quarterly				
Final capping applied to final landform.	Quarterly				
Surveys undertaken to confirm final landform design is being achieved	Six Monthly				

## Six Monthly Site Audit (continued)

### Midcoast Council, Bulahdelah Landfill & Waste Transfer Station: Six Monthly Audit Checklist

Date:			Conducted by:		
Issue	Activity Frequency and Acknowledgement		Satisfactory Y/N	Action Taken	Comments
Vermin – inspection undertaken	Quarterly				
Fire Safety Certificate inspection undertaken for all essential fire safety equipment onsite. Fire breaks being maintained.	Annually				
Activities confined to appropriate areas	Quarterly				
Conditions of EPA licence for facility being met	Quarterly				
Volumetric surveys undertaken	Six Monthly				
Register of weekly site inspections – current and complete	Six Monthly				
Review of on-site procedures against EMP	Six Monthly				
KPIs undertaken for the site management contractor. Performance review completed	Six Monthly				
Annual inspection of stormwater infrastructure undertaken (corrective action initiated if required)	Annually				
Review of “incident” reports and corrective actions	Six Monthly				
Review of dust and sediment control requirements	Quarterly				

Version 4  
Verified by the Waste Management Coordinator

Satisfactory

Unsatisfactory



## Annual Environmental Management Performance Audit

Midcoast Council, Bulahdelah Landfill & Waste Transfer Station: Annual audit of EMP

Date:		Conducted by:		
Issue	Activity Frequency and Acknowledgement	Satisfactory Y/N	Action Taken	Comments
Review of environmental monitoring records	Annual			
Review of environmental management documentation including EMP, KPIs, PIRMP, registers and reporting	Annual			
Interview with contractor and relevant GLC staff to ensure an understanding of the EMP requirements are satisfactory	Annual			
Review of non-conformance reports, weekly inspection checklist, six monthly audit	Annual			
Identification and implementation of any improvements to the operation of the facility	Annual			

Date:

Verified by the Waste Management Coordinator

Satisfactory      Unsatisfactory



## **Appendix 24**

### **Site Services and Infrastructure Plan**

# Clean up of Orphaned Asbestos and Toxic Chemicals

## Standard Operating Procedure

### Purpose and Scope

The purpose of this procedure is to define an incident response in the event of a hazardous material detected or reported to the landfill operations.

### Procedure/Standard

#### Definition

- Asbestos and Chemicals orphaned illegally due to dumping at a landfill or areas to be removed.
- Equipment available

#### Steps in this procedure

- Absorbent material / coveralls / breathing equipment / gloves personal PPE / tape / barrier units / plastic / spray unit and sealed containers.
- Problem identified and located.
- Evaluate situation and safe clean up.
- For large volumes and /or amounts contact relevant governing authorities.
- Accredited personnel evaluate the process.

#### Action

- Area is cordoned off.
- Barricade drainage points if required.
- Utilise spray kit or absorbent material.
- Use relevant PPE to address the situation removal and clean up procedures.
- Container usage for all contaminated PPE and / or products to be disposed of at the landfill.
- Document and report all procedures

#### Benefit of Compliance to Procedure:

- Employee's safety protected
- Health and safety of public/facility user protected
- Impacts on the environment are minimised

#### Consequence of Non-Compliance to Instruction:

- Injury to employee
- Injury to public/facility user
- Environmental pollution
- Violations and/or fines from regulatory agencies

Reviewed by:

Date:

Approved by:

Date



