

# Pollution Incidence Response Management Plan

*The Nambucca Waste Management  
Facility*



# POLLUTION INCIDENCE RESPONSE MANAGEMENT PLAN

**The Nambucca Waste  
Management Facility**

**711 Old Coast Road  
Nambucca Heads**

Revision History				
No	Issue Date	Revision Notes	Prepared By	Approved By

**August 2012**

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# 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 employees and management of the Nambucca Waste Management Facility 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 Nambucca Shire Council's intent to prevent all foreseeable pollution incidents that might impact on the environment and the safety of employees 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 Nambucca Waste Management Facility 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.

The master copy of this plan is to be maintained by the Waste Management Officer, Nambucca Shire Council who will be responsible for revisions of the Plan and for the distribution of revised copies to the abovementioned.

### **1.7 PLAN REVIEW**

The Pollution Incident Response Management Plan is to be reviewed annually by the Waste Management Officer, Nambucca Shire Council in conjunction with relevant Council staff.

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 Waste Management Officer.

Alternatively, the Waste Management Officer may determine that the updated version of the Plan should replace the existing copy in its entirety, in which case copies of the Plan will be exchanged with the new version adopting currency and the former version discarded.

## **1.8 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 and any personnel employed by contractors who may be engaged on the site.

The objectives of the training program shall be as follows:

*a) To ensure that Council employees and personnel engaged by contractors are knowledgeable of their roles and responsibilities concerning this Plan.*

*b) To ensure that Council employees and personnel engaged by contractors are knowledgeable of the Plan's procedures to affect a safe and appropriate response to pollution incidents.*

Council employees and contractor's site personnel 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 and personnel engaged by contractors 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 their supervisor 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 and personnel engaged by contractors 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 Waste Management Officer, Nambucca Shire 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.

#### **1.9 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.

The Plan must also be tested within one month of any pollution incident occurring in the course of an activity to which a licence relates to assess, in the light of that incident, whether the information included in the plan is accurate and up to date, and the plan is still capable of being implemented in a workable and effective manner.

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

The Waste Management Officer will complete a Pollution Incident Action Plan Exercise Evaluation Form, refer to **Appendix No 3**, and maintain copies for review.

#### **1.10 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.

#### **1.11 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** –Nambucca Waste Management Facility

**Owner** –Nambucca Shire Council

**Address** – 711 Old Coast Road Nambucca Heads

**Property Description** – Lot 142 DP700891 and Lot 2 DP 1018234

## **Location Map**

**Figure 1 – Location Map**



## **2.2 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 28** of this document.

**Site Activities** - the Nambucca Waste Management Facility incorporates a number of related activities and operates under two Environmental Protection Licences (EPLs), one for the active landfill which includes extraction for future operations and the second is for the adjacent site which is the closed landfill and is described as resource recovery. The Site Services and Infrastructure Plan in Appendix 28 shows the separation between the two licensed areas. This PIRMP relates to both EPLs.

**(i) The landfill** operates under EPL 11386 as a General Solid Waste (putrescible) facility where approximately 5,000 tonnes per annum (tpa) of waste material are buried. Waste material types include asbestos, small dead animals as well as general Municipal Solid Waste.

Leachate collector drains have been installed within the active tipping area and in the previously filled stages and these connect to a leachate dam and managed wetlands located down gradient

of the landfill. The dam has been sized to cater for anticipated flows and the actively maintained stormwater management system significantly reduces the risk of a capacity failure of the leachate dam by minimising the potential for stormwater entering the leachate management system.

The collected leachate is aerated within the leachate dam. When conditions are suitable, the leachate is pumped from the leachate pond to an irrigation area created over the capped landfill.

The landfill operations are conducted by Council staff who are responsible for the placement, compaction and covering of all incoming wastes. Staff also manage traffic, construct internal access roads/bunds, oversee the installation of leachate drains, control litter and maintain the surface water management system.

New stages of the landfill are developed in advance where the excavated spoil is stockpiled for use as daily cover and the removed vegetation (trees) shredded and windrowed. The shredded green waste is used for site maintenance activities, such as a re-vegetation medium as part of the final capping, for dust management on exposed surfaces and for erosion control.

**(ii) Small Vehicle Waste Transfer Station and Resource Recovery Area** is included in EPL 6268, is located on the closed landfill portion of the overall site and is the receival point for all self haul domestic waste. Waste transfer bins are located within the transfer station with waste types being segregated into domestic food waste, green waste, recyclables and mixed building waste. Mixed building waste is taken to the landfill for disposal, whereas the domestic food waste, recyclables and green waste materials are sent to the Coffs Harbour Resource Recovery Park for reprocessing. The transfer station area is also the point of separation and storage of chemicals, used gas cylinders and hazardous materials.

A leachate interceptor drain and de-leaching wells have been retrofitted to the toe of the closed landfill and the collected leachate is pumped to three x 9000 litre holding tanks located on the crown of the landform. The collected leachate is spray irrigated over the revegetated capping during suitable weather conditions

**(iii) Weighbridge and Gatehouse** is part of EPL 6268 and is the control point for all vehicles entering and exiting the facility and where gate fees are applied. The loads of all incoming vehicles are inspected to ensure only approved waste types are accepted. Commercial inert loads are directed to the landfill and domestic wastes are managed within the transfer station and resource recovery area. Commercial wet loads are redirected to the Coffs Harbour Resource Recovery Park for reprocessing.

**(iv) Stockpile Areas** – is part of EPL 6268 and is where both scrap metal and concrete are stockpiled in an area defined for resource recovery before removal off site for re-processing. Service contracts ensure these materials are removed routinely to ensure stockpiles are maintained at minimum sizes.

Used tyres are not accepted at the site.

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

#### 3.1 PREVENTION AS AN INCIDENT RESPONSE

Nambucca Shire 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 contractor’s staff 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>• Discharge of untreated leachate into the environment</li> <li>• Leachate dam rupture</li> <li>• Surface water contamination from leachate irrigation activities</li> <li>• Ground water contamination</li> <li>• Failed leachate pump line</li> <li>• Leachate spring eruption</li> <li>• Fire at tip face</li> <li>• Fire in transfer bin</li> <li>• Fire in incoming load</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 (gas cylinders, methane)</li> </ul>	<p>Undertaking routine inspections in accordance with the EMP checklist (see <b>Appendix 27</b>) and responding in accordance with Standard Operating Procedures (SOPs) as contained in <b>Appendices 6 to 24</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	1,000,00 litres ( leachate dam at the active landfill 1000 kls), 1,000,000 litres (constructed wetlands) 27,000 litres (3 x 9,000 litre holding tanks)	Leachate dam, ponds and tanks	Earth formed	NA
Petrol	Liquid	Up to 20 litres	Storage shed	Fuel container	NA
Oil based paint	Liquid	Up to 50 litres	Transfer Station	Bund and locked storage cabinet	Recorded as product
Water based paint	Liquid	Up to 50 litres	Transfer Station	Bund and locked storage cabinet	Recorded as product
Herbicides	Liquid	Up to 20 litres	Transfer Station	Bund and locked storage cabinet	Recorded as product comes in
Pesticides	Liquid	Up to 20 litres	Transfer Station	Bund and locked storage cabinet	Recorded as product comes in
Gas cylinders	Solid	Up to 30 units	Transfer Station	Wire enclosure	NA
General household chemicals	Liquid or Powder	Up to 20 litres	Transfer Station	Bund and locked storage cabinet	Recorded as product comes in
Solvents	Liquid	Up to 20 litres	Transfer Station	Bund and locked storage cabinet	Recorded as product comes in
Lead Acid Batteries	Solid	Up to 50 units	Transfer Station	Covered enclosure. Bund.	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 Nambucca Shire Council's commitment to preventing conditions/issues which might give rise to a pollution incident, it is not possible to negate all situations which might give rise to an incident. Possible pollution incidents associated with the operation of the Facility are:

- Fire within facility activity areas
- Explosion (gas bottles, landfill gas accumulations)
- 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 Nambucca Waste Management Facility, 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

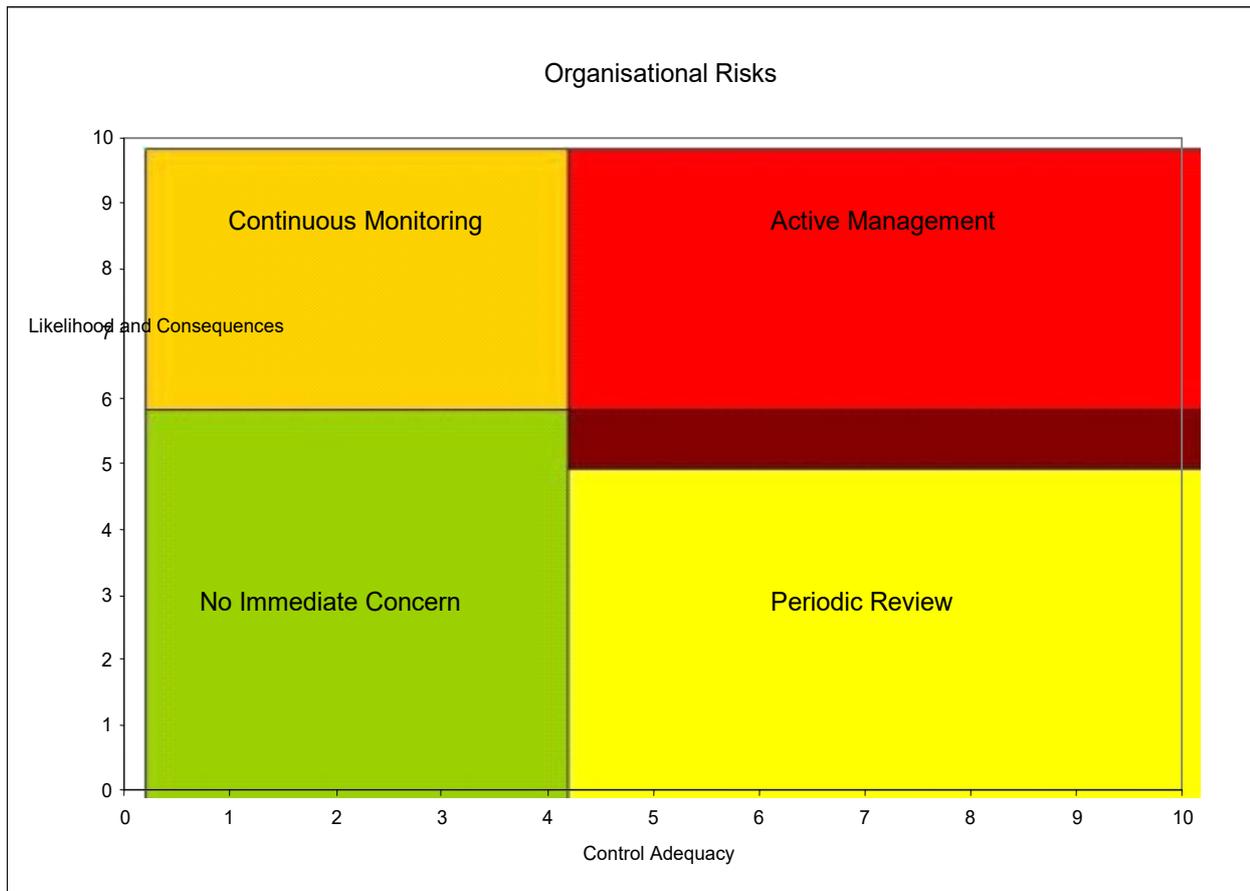
**3.3.3 Risk Evaluation** -individual evaluation of the management priority for each potential pollution incident using the risk priority matrix presented in the following figure.

**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	Contamination of adjacent land, wetlands and/or waterways	Possible/major (Significant)	Routine inspection included in Environmental checklist  Surface water monitoring of down gradient points	Environmental Inspection checklist as provided in Appendix 27 of the PIRMP	Rare/Major (Moderate)	SOP Appendix 6	SOP within the PIRMP
	Leachate pump breakdown or pipeline failure	Contamination of adjacent land, wetlands and/or waterways	Possible/major (Significant)	Routine inspection included in Environmental checklist.  Scheduled maintenance servicing of pump, discharge lines and pump connections  Standby pump and service parts available  Surface water monitoring	Environmental Inspection checklist as provided in Appendix 27 of the PIRMP	Rare/Major (Moderate)	SOP Appendix 7	SOP within the PIRMP  Report in EPL Annual Return

Pollution Hazard	Risk Factors	Outcome	Likelihood/Consequence (Rating)	Pre-emptive Actions	Reference	Likelihood/Consequence post control (Rating)	Incidence Response Actions	Reference
	Leachate contamination of the surface water management system.	Contamination of adjacent land and/or waterways	Possible/major (Significant)	Routine inspection included in Environmental checklist to ensure suitable management procedures, including bund separation at active tipping area	Environmental Inspection checklist as provided in Appendix 27 of the PIRMP	Rare/Major (Moderate)	SOP Appendix 8	SOP within the PIRMP
	Leachate holding tanks rupture	Contamination of adjacent land, wetlands and/or waterways	Possible/major (Significant)	Routine inspection included in Environmental checklist	Environmental Inspection checklist as provided in Appendix 27 of the PIRMP	Rare/Major (Low)	SOP Appendix 10	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	Environmental Inspection checklist as provided in Appendix 27 of the PIRMP	Rare/Major (Low)	SOP Appendix 11	SOP within the PIRMP Report in EPL Annual Return
	Uncontrolled or undetected leachate springs	Contamination of the surface water management system, adjacent land and/or waterways	Possible/major (Significant)	Routine inspection included in Environmental checklist	Environmental Inspection checklist as provided in Appendix 27 of the PIRMP	Rare/Major (Moderate)	SOP Appendix 7	SOP within the PIRMP
	Failure of leachate interceptor drains	Contamination of the surface water management system, adjacent land and/or waterways	Possible/major (Significant)	Routine inspection included in Environmental checklist	Environmental Inspection checklist as provided in Appendix 27 of the PIRMP	Rare/Major (Moderate)	SOP Appendix 7	
	Over saturation of leachate irrigation areas	Contamination of the surface water management system, adjacent land and/or waterways	Possible/major (Significant)	Routine inspection included in Environmental checklist	Environmental Inspection checklist as provided in Appendix 27 of the PIRMP	Rare/Major (Moderate)	SOP Appendix 7	

Pollution Hazard	Risk Factors	Outcome	Likelihood/Consequence (Rating)	Pre-emptive Actions	Reference	Likelihood/Consequence post control (Rating)	Incidence Response Actions	Reference
<b>(b) Combustion</b>	Green waste stockpile ignites	Combustion creates smoke and fire hazard	Possible/moderate (Moderate)	Routine inspection included in Environmental checklist to ensure stockpile size management and maintenance of buffer zones	Environmental Inspection checklist as provided in Appendix 27 of the PIRMP	Rare/Moderate (Moderate)	SOP Appendix 13	SOP within the PIRMP
	Fire in waste transfer bins	Combustion creates smoke and fire hazard	Possible/moderate (Moderate)	Inspection of all incoming loads as required in Environmental checklist.	Environmental Inspection checklist as provided in Appendix 27 of the PIRMP	Rare/Moderate (Low)	SOP Appendix 14	SOP within the PIRMP
	Fire at landfill active tipping area	Combustion creates smoke and fire hazard. Deep seated fire difficult to extinguish.	Possible/moderate (Moderate)	Inspection of all incoming loads as required in Environmental checklist.  Site secured at close of day	Environmental Inspection checklist as provided in Appendix 27 of the PIRMP	Rare/Moderate (Low)	SOP Appendix 15	SOP within the PIRMP
	Fire in vehicle loads of incoming wastes	Combustion creates smoke and fire hazard. Property damage.	Possible/moderate (Moderate)	Inspection of all incoming loads as required in Environmental checklist.	Environmental Inspection checklist as provided in Appendix 27 of the PIRMP	Rare/Moderate (Low)	SOP Appendix 16	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 bunded storage areas  Use of bunded chemical storage cabinets	Environmental Inspection checklist as provided in Appendix 27 of the PIRMP	Rare/Moderate (Low)	SOP Appendix 17	SOP within the PIRMP

Pollution Hazard	Risk Factors	Outcome	Likelihood/Consequence (Rating)	Pre-emptive Actions	Reference	Likelihood/Consequence post control (Rating)	Incidence Response Actions	Reference
	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 bunded storage areas	Environmental Inspection checklist as provided in Appendix 27 of the PIRMP	Rare/Moderate (Low)	SOP Appendix 18	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 Environmental checklist.	Environmental Inspection checklist as provided in Appendix 27 of the PIRMP	Rare/Moderate (Low)	SOP Appendix 19	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  Creation of bunded storage areas	Environmental Inspection checklist as provided in Appendix 27 of the PIRMP	Rare/Moderate (Low)	SOP Appendix 20	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 21	SOP within the PIRMP

Pollution Hazard	Risk Factors	Outcome	Likelihood/Consequence (Rating)	Pre-emptive Actions	Reference	Likelihood/Consequence post control (Rating)	Incidence Response Actions	Reference
<b>(e) Dust</b>	Dust migrating off site	Complaints to EPA	Possible/moderate (Moderate)	Install dust monitor  Wet down unsealed trafficable areas  Use shredded green waste on exposed areas of cover material	Environmental Inspection checklist as provided in Appendix 27 of the PIRMP	Rare/Minor (Low)	SOP Appendix 22	SOP within the PIRMP
<b>(f) Odour</b>	Offensive odour	Complaints to EPA	Possible/moderate (Moderate)	Provide daily cover to active tipping area	Environmental Inspection checklist as provided in Appendix 27 of the PIRMP	Rare/Minor (Low)	SOP Appendix 23	SOP within the PIRMP
<b>(g) Landfill Gas</b>	Explosion	Concentration of methane in de-leaching wells and within buildings	Possible/major (Moderate)	Undertake landfill gas testing	EPL conditions	Unlikely/Major (Low)	SOP Appendix 7	
<b>(h) Litter</b>	Litter migrating off site	Complaints to EPA	Possible/moderate (Moderate)	Provide daily or intermediate cover to waste  Erect litter fences  Undertake routine litter collection activities	Environmental Inspection checklist as provided in Appendix 27 of the PIRMP	Rare/Minor (Low)	SOP Appendix 24	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 Environmental checklist. Appendix 27.	Rare/Moderate (Low)	SOP Appendix 25	SOP within the PIRMP

Pollution Hazard	Risk Factors	Outcome	Likelihood/Consequence (Rating)	Pre-emptive Actions	Reference	Likelihood/Consequence post control (Rating)	Incidence Response Actions	Reference
<b>(3) WORKPLACE HEALTH and SAFETY</b>	Personal injury to staff, contractors, general public attending the facility	Trauma Lost time Rehabilitation Compensation	Likely/major	Regular tool box meetings with staff and contractors  Safe Work Method Statements prepared and implemented  Risk assessments undertaken  Safety plans developed for major works  Staff training  Job and site specific orientation for new staff, visitors and contractors  Independent audit of all systems of work  Emergency and evacuation plans prepared and tested	Established tool box meeting protocols  Council's Health, Safety and Environment Plan  Councils Health, Safety and Environment Plan  SOP Appendix 2  Council's Health, Safety and Environment Plan  SOP Appendix 25	Unlikely/moderate  (Moderate)		SOPs within the PIRMP

### 3.4 INCIDENT PREPAREDNESS

#### 3.4.1 Response Equipment and Features

The Nambucca Waste Management Facility 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***

EQUIPMENT	LOCATION	QUANTITY	MAINTAINANCE REQUIREMENTS/STANDARDS
Asbestos Kit	Storage Shed	3	Weekly inspection
Chemical Spill Kit	Storage Shed	2	Weekly inspection
Fire Extinguisher	Storage Shed	1	Six monthly inspection and tagging
	Landfill Compactor	1	Six monthly inspection and tagging
	Rubber Tyre Loader	1	Six monthly inspection and tagging
Fire Hose Reel	Transfer Station	1	Six monthly inspection and tagging
	Weighbridge	1	Six monthly inspection and tagging
Fire Hydrant	Exit Boom Gate	1	Six monthly inspection and tagging
First Aid Kit	Gatehouse	1	Monthly inspection and replenishment.
Eye Wash and Dousing Shower	Transfer Station	1	Weekly inspection
	Entrance to Active Landfill	1	Weekly inspection

Active systems and equipment such as portable fire extinguishers, hose reels and fire hydrants 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 signposted 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 telephone system is installed within the Nambucca Waste Management Facility with this system providing for communication externally via a telecommunications service provider. In a pollution incident the 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 the accepted means of communications

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 of 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**

Entry to the Nambucca Waste Management Facility by unauthorised persons and unauthorised activities occurring on the site will be controlled at the gatehouse by Council's personnel who are required to provide access to authorized persons only.

Access gates are locked and secured at the close of business and perimeter fencing has been installed around the active site areas.

### **3.4.3 First Aid Equipment**

A suitable fully stocked and easily accessible first aid kit is located at the gatehouse 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, contractor's staff 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 therefore 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**

<b>NAME</b>	<b>POSITION</b>	<b>CONTACT DETAILS (24 Hours)</b>	<b>NOTIFICATION RESPONSIBILITIES</b>	<b>COMMUNICATION RESPONSIBILITIES</b>
<b>Simon Chapman</b>	Waste Management Officer Nambucca Shire Council	0429369821	Emergency Services EPA Council Executive	Contractors Neighbouring property owners Media releases
<b>Duty Officer</b>	Waste Supervisor	65682170	Waste Management Officer, Nambucca Shire Council	Site staff, contractors and facility users

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	65985399 (Nambucca Heads) 000
<b>Ambulance Service of NSW</b>	Duty Officer	1312333 000
<b>Macksville District Hospital</b>	Reception	65681366 000
<b>Department of Environment and Conservation (EPA)</b>	EPA Environment Line	131 555
	Coffs Harbour Regional Office	66515946
<b>Forests NSW</b>	Coffs Harbour Regional Office	66520111
<b>Workcover 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
<b>Bureau of Meteorology</b>	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.

### 4.3.2 Small Area/Minor Incidents

Incidents such as small chemical spills or individual medical emergencies 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 Waste Management Officer, Nambucca Shire Council so that an assessment of the level of response required can be made.

The mobile 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 Waste Management Officer, Nambucca Shire Council.

### 4.3.3 Major Incident

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

Where a major incident occurs, the Waste Management Officer 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 Assistant General Manager Engineering Services, Nambucca Shire Council.

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

#### **4.3.4 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 Nambucca Waste Management Facility. 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 (see Appendix 29 for communications recipients schedule)  Local community	Waste Management Officer, Nambucca Shire Council	Phone call to EPA Environment Line followed by a written report Phone call to occupiers of neighbouring properties (see Appendix 29 for communications recipients schedule)  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 Means of receiving additional information
Fire	Local impact, likely to be minor, depending on the severity of the fire	EPA  Occupiers of neighbouring properties (see Appendix 29 for communications recipients schedule)  Local community	Waste Management Officer, Nambucca Shire Council	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 Agency responding
Chemical spill	Local impact, likely to be minor	EPA, depending on severity	Waste Management Officer, Nambucca Shire Council	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 Officer, Nambucca Shire Council	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 depending on severity	Waste Management Officer, Nambucca Shire Council	Phone call to EPA and nearby property owners followed by a report to the EPA	Assessment of severity Agency responding Date and time of incident Damage report

## 4.4 FACILITY EVACUATION

### 4.4.1 General Requirements

Nambucca Shire Council does have emergency procedures in place for the Waste Management Facility that covers a number of emergency situations, including a pollution incident. This section of the Pollution Incident Response Management Plan should be read in conjunction with these established emergency procedures and be considered as a supplementary guide in the event of a pollution incident that warrants an evacuation of the site.

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, contractor's staff 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 hazard area.

In this regard the standard operating procedures applicable to facility evacuation, refer to **Appendix No 25**, must be implemented once a decision is made to evacuate the facility.

The decision to evacuate the building is to be taken by the Waste Management Officer or his delegate and supported by facility personnel.

### 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 Waste Management Officer or his delegate to determine the need for and extent of facility evacuation in the event of a major pollution incident.

Whilst the need for evacuation will be dependent 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 conservative approach to facility evacuation is to be taken.

*In the event of a Total Facility Evacuation, the Facility is not to be re-entered unless instructed to do so by the Waste Management Officer, Nambucca Shire Council*

#### 4.4.3 Priority of Evacuation

The Waste Management Officer or his delegate is 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.

#### 4.4.4 Mobility Impaired Persons

A register is to be maintained of site personnel who may have a permanent or temporary disability.

A staff member who works with a person with a disability shall be appointed as that person's carer during an emergency.

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

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

#### 4.4.5 Evacuation Assembly Areas

The facility has a designated primary evacuation assembly point. In the event of an incident requiring the evacuation of the facility, all Council employees, contractor's staff and facility users are to immediately leave the facility by the designated route and report to the designated primary evacuation point. Should the primary evacuation point be in a hazardous area or is unsuitable due to the nature of the threat, employees and facility users will then be directed to proceed to the designated secondary evacuation point.

On arrival at the designated evacuation assembly point all employees will remain until the Waste Management Officer has determined the status of all personnel and;

- accounted for all, or
- prepared a list of names of missing personnel and the location last seen

For the purposes of this plan the following evacuation assembly point is applicable;

**Primary Assembly Point** is at the main entry to the Nambucca Waste Management Facility where the "**Emergency Assembly**" sign is located.

#### **4.6.6 Post Evacuation Assembly Point**

Once the facility has been evacuated to the Primary Assembly Point and the presence of personnel confirmed, arrangements will be made by the Waste Management Officer for Council employees and contractor's staff to be transported/moved to the Post Evacuation Assembly Point which for the purposes of this Plan is the Nambucca Shire Council offices located in Princess Street Macksville.

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 25** 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 Nambucca Waste Management Facility.

### **6.1 RECOVERY OPERATIONS**

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

The Waste Management Officer will need to prioritize activities that can be accomplished with available staff and resources.

Immediately following the emergency phase of an incident, the Waste Management Officer 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 Waste Management Officer 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 Supervisor 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 Waste Management Officer 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 Waste Management 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 Waste Management Officer must prepare a report documenting activities that took place during a major pollution incident.

The report of the Waste Management Officer and all related documentation will be submitted to the **EPA** and to the Assistant General Manager Engineering Services for review and 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 Waste Management Officer 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 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 Assistant General Manager Engineering Services, Nambucca Shire Council.



**APPENDIX 2**

**Training**

## Standard Operating Procedure

### Purpose and Scope

To ensure the safe and effective management at the Nambucca Waste Management Facility, it is essential that all relevant staff receive training appropriate to their position, duties and level of responsibility.

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.

**Primary Environmental Goal** – Adequate staffing and training. Benchmark Technique 39.

### Procedure/Standard

Staffing and training requirements shall be adequate to enable proper management and service delivery

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.

The guidance for specific training programs that are integral to the operation of Council's facilities is described below.

### Program A – Site Environment Induction

Key points to be covered in this program may include:

- environmental impacts of the landfill
- pollution incident response
- waste identification and rejection procedures
- hours of operation and traffic management
- environmental mitigation measures and controls
- record keeping and reporting
- waste placement, compaction and covering

This training would be in-house and would be provided by the Council's Waste Management Officer or by consultants. Training would be undertaken when new staff commence at the site. Ongoing "on the job" training will also be necessary.

### 1.1.1.1 Program B – Fire Fighting

Key points to be covered in this program may include:

- Types of fires (eg oil, electrical)
- Determining responsibilities in the event of a fire (staff/fire brigade)
- Procedures for extinguishing fires
- Types/location and maintenance of fire fighting equipment
- Prevention of fires
- Procedures for communication in the event of fire

This training would be undertaken at the site in the form of a toolbox talk and may include practical demonstrations. The training would be prepared and delivered by suitably qualified personnel, with input may also be provided by officers of the local NSW Fire and Rescue.

### 1.1.1.2 Program C – Hazardous Substance and Dangerous Goods Management

Key points to be covered in this program may include:

- Use and interpretation of material safety data sheets
- Identification of hazardous materials
- Handling of hazardous materials
- Labelling of containers
- Storage and transport of hazardous substances and dangerous goods
- Spill management and basic first aid procedures
- Compatibility of materials.

This training would be provided by a suitable service provider or Council's Safety Officer. Where required, additional input may be required from external Workcover Accredited OH&S Consultants.

#### Training Records

A record of all training undertaken will be maintained at the Council's offices and will be made available for inspection by authorised personnel.

#### Benefit of Compliance to Procedure:

- Impacts on the natural environment are minimised
- Operational issues identified
- Demonstrated operational competency
- Employees safety protected
- Health and safety of public/facility user protected
- Meeting environmental goal

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

- Violations and/or fines from Regulatory Agencies
- Pollution of the environment
- Unresolved operational issues
- Injury/Death to employee
- Injury/Death to public/facility users
- Violations and/or fines from Regulatory Agencies

**Reviewed by:**

**Date:**

**Approved by:**

**Date**



**APPENDIX 3**

<b>POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN EXERCISE EVALUATION FORM</b>		
Facility: the Nambucca Waste Management Facility		
Date:		
<b>EMERGENCY SEQUENCE:</b>	<b>TIME</b>	
	<b>Hours</b>	<b>Minutes</b>
Incident uncovered		
Assessment of significance		
Initiation of incident response/notification of incident		
Evacuation alarm sounded (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		
<b>OBSERVER</b>		
<b>SIGNED</b>		
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 Waste Management Officer Nambucca Shire Council			
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 leachate dam/collection system overflowing at Nambucca Waste Management Facility.

### 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 Council's staff to determine and initiate appropriate actions. The leachate dam located within the active landfill site is connected to the adjoining controlled wetlands by a spillway where discharge to the environment is managed through a concrete sump and control valve. The EPL has established parameters for water quality before it can be released into the environment. Ensuring only suitable water can be released is a primary aim and the discharge of unsuitable water represents a pollution risk.

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

- Confine the source of the discharge and/or sources of inflows to limit the spread of its effects without endangering personnel. Check leachate pumps are working and the control valve within the wetlands sump is closed.
- Examine the surface water management system for possible cross connections with the leachate management system.
- Take water samples at the point of discharge to the environment and make an estimate or measurement as to the rate of flow. Determine the period over which the discharge has occurred.
- Construct sand bag barriers or earth berms to contain the flow within the adjacent water way and/or excavate temporary retention dams to withhold discharges.
- Advise the Waste Management Officer of all actions taken or proposed.
- 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 Waste Management Officer

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**

<b>Leachate System – Management and Maintenance Standard Operating Procedure</b>	
<p><b>Purpose and Scope</b></p> <p>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.</p> <p><b>Primary Environmental Goal</b> – Preventing pollution of water by leachate. Benchmark technique 8</p>	
<p><b>Procedure/Standard</b></p> <ol style="list-style-type: none"> <li>1. It is the responsibility of site staff to provide prescribed inspections of, report upon and record the following leachate control measures. <ul style="list-style-type: none"> <li>• Inspect leachate pumps to ensure they are operating correctly.</li> <li>• Examine the level of leachate within collection tanks/dams. Where leachate levels appear excessive immediately contact the council’s Waste Management Officer.</li> <li>• Inspect the leachate primary treatment measures, including aeration systems</li> <li>• Visually consider wetlands water quality and look for plant die back</li> <li>• Inspect pump discharge lines and discharge points 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.</li> </ul> <p><b>Note:</b> 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.</p> <ul style="list-style-type: none"> <li>• Examine the leachate irrigation systems under operating pressures to ensure spray heads are functioning as designed, pipeline integrity and weather conditions are suitable for irrigating.</li> <li>• Inspect the irrigation area vegetation cover, management of surface water diversion berms and ground saturation. Ensure any run off of leachate from the irrigation area drains to the site’s leachate management system.</li> </ul> </li> <li>2. It is the responsibility of the site staff to provide weekly inspections of, report upon and record the following leachate control measures. <ul style="list-style-type: none"> <li>• De-leaching wells/chambers – inspect leachate flow to ensure levels are acceptable and that leachate heads are not developing. Consider methane accumulations in the wells/chambers and examine venting measures. Undertake landfill gas (methane) testing as prescribed in the EPL. <b>Note: under no circumstances should de-leaching wells/chambers be accessed unless “confined spaces” procedures are instituted, and even then only under strict supervision.</b></li> <li>• Inspect the intermediate/final capping for the emergence of leachate springs.</li> </ul> </li> <li>3. Where system operational defects are detected immediately contact the Council’s Waste Management Officer to discuss and arrange rectification/maintenance works.</li> <li>4. Details of system inspection findings are to be recorded on the EMP inspection checklist.</li> </ol>	
<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 8

# 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 Environmental checklist in Appendix 27 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. Quarterly sampling is an EPL requirement for most testing points however the frequency of testing for discharge from the controlled wetlands is daily. Sampling locations and testing regimes are identified in the EPL. The EPL should be referenced for individual site requirements and testing regimes to ensure the licence conditions are being met.

### Procedure/Standard

Surface water is to be sampled as prescribed in the EPL. The locations of the surface water sampling locations are shown in the LEMP and referenced in the EPL. In addition to the parameters to be analysed (see Table 1 below), the frequency of monitoring and analytes to be monitored are reviewed in agreement with the EPA.

### 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)

<p><u>Organics</u></p> <ul style="list-style-type: none"> <li>• 2 x duplicates per analytical lot of samples (ie one duplicate per 10 samples)</li> <li>• 1 x Method Blank per lot</li> <li>• 1 x Single Control Sample (SCS) containing all target compounds per analytical lot of samples</li> <li>• 1 x Duplicate Control Sample (DCS) containing all target compounds per analytical lot of samples</li> <li>• 2 x MS per analytical lot of samples (ie one MS per 10 samples)</li> <li>• Addition and analysis of surrogate compounds (where appropriate) to all samples.</li> </ul> <p>Compliance to this QC Schedule is reliant upon the submission of appropriate sample volumes.</p> <p><b>NB:</b> Water samples in particular require the submission of additional containers for the analysis of MS and duplicates.</p> <p>Please inform the laboratory of your QC requirement prior to ordering sample containers.</p>	
<p><b>5. Reporting</b></p> <p>All results received shall be reviewed by the Waste Management Officer and reported to the NSW Environment Protection Authority (EPA) on an annual basis with the EPA annual landfill licence return. If any particularly high contaminant levels are received they shall be reported to the EPA within 14 days.</p>	
<p><b>6. Attachments</b></p> <p>A. Sampling Field Sheet</p> <p>B. Chain Custody Form Field Record Sheet</p>	
<p><b>Benefit of Compliance to Procedure:</b></p> <ul style="list-style-type: none"> <li>• Impacts on the natural environment minimised</li> <li>• Operational issues identified</li> <li>• Demonstrated operational competency</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> </ul>	
<p><b>Reviewed by:</b></p> <p><b>Date:</b></p>	<p><b>Approved by:</b></p> <p><b>Date</b></p>

## APPENDIX 9

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

## Standard Operating Procedure

**Purpose and Scope** To ensure that the surface water control system 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 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 as ramps to transfer bins, new waste disposal stages, recently completed filling areas, stockpile areas and roads have a high potential to release sediments into stormwater, and significant sedimentation and erosion controls have to be constructed 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 (retention dam) 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 Waste Management Officer for action.

<ul style="list-style-type: none"> <li>• Items that are to be subject to Routine Inspections for Maintenance 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 Environmental check list for the facility.</li> <li>• 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.</li> <li>• Personnel completing the routine inspections for maintenance should be generally observant of items such as equipment failures, leaking water, scouring and/or signs of blockages of water flow. If such items are observed an immediate inspection for engineering maintenance should be organised.</li> <li>• Where routine maintenance is repeatedly carried out in one location, the problem should be investigated further during an engineering inspection for maintenance.</li> </ul>	
<p><b>2. Frequency of Inspection</b></p> <ul style="list-style-type: none"> <li>• Routine inspections for maintenance shall be carried out over the life of the facility.</li> <li>• 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).</li> </ul>	
<p><b>3. Records</b></p> <ul style="list-style-type: none"> <li>• Records detailing each of the routine inspections for maintenance should be completed during the inspection and describe in detail any required maintenance.</li> <li>• The inspection records are to be provided as part of the facility inspection and audit program for the facility.</li> <li>• 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.</li> </ul>	
<p><b>4. Personnel</b></p> <ul style="list-style-type: none"> <li>• Routine inspections for maintenance 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.</li> </ul> <p><b>5. Attachments</b></p> <p>A      Water Quality Basin Inspection Requirements</p>	
<p><b>Benefit of Compliance to Procedure:</b></p> <ul style="list-style-type: none"> <li>• Impacts on the natural environment minimised</li> <li>• Operational issues identified</li> <li>• Demonstrated operational competency</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> </ul>	
<p><b>Reviewed by:</b></p> <p><b>Date:</b></p>	<p><b>Approved by:</b></p> <p><b>Date</b></p>

## 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 lining for damage and general condition	6 monthly
	Inspect retention dam 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
Overflow Weir (refer to Section....)	Inspect weir for signs of deterioration or damage	6 monthly
<b># Inspections should also be undertaken after a heavy rainfall event</b>		

## APPENDIX 10

<b>Leachate Discharge – Dam Rupture Standard Operating Procedure</b>	
<b>Purpose and Scope</b> <p>The purpose of this procedure is to define an incident response in the event of a leachate discharge being detected or reported from the leachate dam rupturing or suffering a significant leak at the Nambucca Waste Management Facility.</p>	
<b>Procedure/Standard</b> <ul style="list-style-type: none"><li>Leachate or contaminated surface water discharge to adjacent waterways</li></ul> <p>Conditions of the EPL require inceptor trenches to be installed both up gradient and down gradient of the leachate dam. The purpose of these trenches is to prevent ground water entering the leachate dam from up gradient and to prevent any subterranean leachate escaping from the leachate dam into the ground water.</p> <p>Leachate may also escape through a rupture in the dam wall. This procedure considers mitigation measures that can be taken in the event of the leachate dam integrity failure.</p> <p>Actions required in response to such events may vary and it will be the role of Council's staff to determine and initiate appropriate actions.</p> <p>The following notes will form the basis of that decision making.</p> <ul style="list-style-type: none"><li>Confine the source of the discharge to limit the spread of its effects without endangering personnel.</li><li>Place sand bag barriers at the point of rupture if safe to do so or engage suitable plant to replace earth in repairing the defective dam wall.</li><li>Secure the affected area(s) by using barricades and bunting if necessary.</li><li>Advise the company's supervisor of all actions taken or proposed.</li><li>Notify neighbours who may be affected by the incident.</li><li>Engage a suitably qualified engineer to evaluate the damage and to design the remedial work.</li><li>A copy of the Pollution Incident Report Form is to be referred to the Waste Management Officer</li></ul> <p>It is considered essential that all operators using the site are aware and understand the specific emergency and incident response requirements.</p>	
<b>Benefit of Compliance to Procedure:</b> <ul style="list-style-type: none"><li>Limit environmental damage</li><li>Health and safety of public/facility user protected</li></ul>	
<b>Consequence of Non-Compliance to Instruction:</b> <ul style="list-style-type: none"><li>Violations and/or fines from Regulatory Agencies</li></ul>	
<b>Reviewed by:</b> <b>Date:</b>	<b>Approved by:</b> <b>Date</b>

## APPENDIX 11

# 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 Nambucca Waste Management facility.

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

### Procedure/Standard

Conditions within the EPL specify the frequency and locations for groundwater monitoring and these vary from annual to after specific rain events. Monitoring requirements are comprehensive and reflect the adopted methods of leachate capture, treatment and discharge. The EPL should be referenced for individual site requirements and testing regimes to ensure the licence conditions are being met.

### 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, non speciated)
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 Officer

#### **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 12**

<b>Used Tyre Stockpile Management and Maintenance Standard Operating Procedure</b>	
<p><b>Purpose and Scope</b></p> <p>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 and requires stockpiles of tyres not to <b>exceed 50 tonnes</b>.</p> <p>Council's current practice is to not accept tyres at the Nambucca Waste Management Facility. This standard operating procedure would only apply should Council reverse its current position in accepting used tyres.</p>	
<p><b>Procedure/Standard</b></p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• Tyres are to be removed from site on a routine basis to ensure the stockpile is kept to a minimum.</li> <li>• Fire prevention measures are to be undertaken including signage, servicing of fire fighting equipment and training of personnel in fire fighting techniques.</li> </ul> <p>In the event of a fire –</p> <ul style="list-style-type: none"> <li>• Attempt to extinguish a small, controlled fire with equipment on site without endangering facility personnel and equipment. This equipment includes a fire hose reel or suitable fire extinguisher. When in doubt, evacuate the area and call 000 and request the presence of the Fire Brigade. Do not attempt to remove the transfer bin containing the fire.</li> <li>• 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)</li> <li>• As soon as possible notify the Waste Management Officer of the incident and provide an update of the action initiated to date.</li> <li>• Keep all unauthorised people away from the area on fire whilst protecting personal safety.</li> <li>• Report the details of the fire on an Incident Notification Report and refer to the Waste Management Officer.</li> </ul>	
<p><b>Benefit of Compliance to Procedure:</b></p> <ul style="list-style-type: none"> <li>• Impacts on the natural environment 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>	
<b>Reviewed by:</b>	<b>Approved by:</b>

<b>Date:</b>	<b>Date</b>
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**APPENDIX 13**

<h2 style="margin: 0;">Green Waste Stockpile Management and Maintenance</h2> <h3 style="margin: 0;">Standard Operating Procedure</h3>
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**Purpose and Scope**

To define the procedure for the management of shredded green waste which has been stockpiled and is waiting composting or transporting offsite for further processing so as to minimise the risk of fire and/or odour generation.

Council's current practice is to not stockpile green waste at the Nambucca Waste Management Facility. This standard operating procedure would only apply should Council reverse its current position to stockpile green waste

- 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

<b>Reviewed by:</b>	<b>Approved by:</b>
<b>Date:</b>	<b>Date</b>

**APPENDIX 14**

<b>Fire in Waste Transfer Bin Standard Operating Procedure</b>	
<p><b>Purpose and Scope</b> To define a procedure for responding to a fire that is detected in a waste transfer bin.</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> <ul style="list-style-type: none"> <li>• Attempt to extinguish a small, controlled fire with equipment on site without endangering facility personnel and equipment. This equipment includes a fire hose reel or suitable fire extinguisher. When in doubt, evacuate the area and call 000 and request the presence of the Fire Brigade. Do not attempt to remove a transfer bin containing the fire.</li> </ul> <p><b>Note: Be sure to use the proper extinguisher for the fire</b></p> <ul style="list-style-type: none"> <li>• 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)</li> <li>• As soon as possible notify the Waste Management Officer of the incident and provide an update of the action initiated to date.</li> <li>• Keep all unauthorised people away from the area on fire whilst protecting personal safety.</li> <li>• Report the details of the fire on a Pollution Incident Report form and refer to the Waste Management Officer</li> <li>• A copy of the Pollution Incident Report Form is to be referred to the Waste Management Officer</li> </ul>	
<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 employee</li> <li>• Injury/death to public/facility user</li> <li>• Damage to public property</li> <li>• Violations and/or fines from Regulatory Agencies</li> </ul>	
<p><b>Reviewed by:</b> <b>Date:</b></p>	<p><b>Approved by:</b> <b>Date</b></p>

## APPENDIX 15

<b>Fire at the Tipping Face Standard Operating Procedure</b>	
<b>Purpose and Scope</b> To define a procedure for responding to a fire that is detected at the tipping face or elsewhere on the landfill at the Nambucca Waste Management Facility. <b>Primary Environmental Goal</b> – Adequate Fire Fighting Capacity. Benchmark technique 38.	
<b>Procedure/Standard</b> <b>Fire</b> <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 hose reel, water tanker or isolating the source of the fire and covering with earth by using on-site plant. 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></li><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 Waste Management Officer 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 Waste Management Officer.</li><li>6. A copy of the Pollution Incident Report form is to be referred to the Waste Management Officer.</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>• Minimise damage to public property</li></ul>	
<b>Consequence of Non-Compliance to Instruction:</b> <ul style="list-style-type: none"><li>• Injury/death to employee</li><li>• Injury/death to public/facility user</li><li>• Damage to public property</li><li>• Violations and/or fines from Regulatory Agencies</li></ul>	
<b>Reviewed by:</b> <b>Date:</b>	<b>Approved by:</b> <b>Date</b>

## APPENDIX 16

<b>Fire in Load Standard Operating Procedure</b>	
<b>Purpose and Scope</b> To define a procedure for responding to a fire which is detected in a load of material brought to the Nambucca Waste Management Facility for disposal. <b>Primary Environmental Goal</b> – Adequate Fire Fighting Capacity. Benchmark technique 38.	
<b>Procedure/Standard</b> Fire in load refers to a vehicle load of waste that is either on fire and/or smouldering or smoking prior to discharge at the tip face or to a waste transfer receptacle. All employees are expected to be familiar with the following procedures for handling such loads: <ol style="list-style-type: none"><li>1. The driver is to dump the material in a clear area that is away from any building and clear of any vegetation and/or debris.</li><li>2. Should it not be possible to move the vehicle to a clear space, isolate the vehicle and evacuate the area</li><li>3. Notify the Fire Brigade by telephoning “000” providing all information they require (ie your name, fire location, type, size, etc)</li><li>4. As soon as possible notify the Waste Management Officer of the incident and provide an update of the action initiated to date.</li><li>5. Contain the fire, and if possible spread out the load and extinguish the fire with water or soil.</li><li>6. Once fire is determined to be completely out, assess the content of the waste to determine if any hazardous wastes are present place the load into an empty waste receptacle for transport to the landfill. No other waste is to be incorporated into the waste receptacle.</li><li>7. Where hazardous wastes are involved contact the Fire Brigade by telephoning “000” and request their attendance. Provide all information they require ie .your name, fire location, type, size, etc.</li><li>8. Report the details of the fire on a Pollution Incident Report form and refer to the Waste Management Officer.</li></ol> A copy of the Pollution Incident Report form is to be referred to the Waste Management Officer	
<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>• Minimise damage to public property</li></ul>	
<b>Consequence of Non-Compliance to Instruction:</b> <ul style="list-style-type: none"><li>• Injury/death to employee</li><li>• Injury/death to public/facility user</li><li>• Damage to public property</li><li>• Violations and/or fines from Regulatory Agencies</li></ul>	
<b>Reviewed by:</b>	<b>Approved by:</b>

<b>Date:</b>	<b>Date</b>
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**APPENDIX 17**

<b>Chemical Spill Response Standard Operating Procedure</b>	
<b>Purpose and Scope</b>	
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 Nambucca Waste Management Facility.	
<b>Procedure/Standard</b>	
<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 Council's staff 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 drains and/or place temporary bunting</li> <li>• For small spills, use the spill kit kept on site.</li> <li>• Advise the Waste Management Officer 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.</li> <li>• A copy of the Pollution Incident Report form is to be referred to the Waste Management Officer</li> </ul> <p>It is considered essential that all operators using the site are aware and understand the specific emergency and incident response requirements.</p>	
<b>Benefit of Compliance to Procedure:</b>	
<ul style="list-style-type: none"> <li>• Limit environmental damage</li> <li>• Health and safety of public/facility user protected</li> </ul>	
<b>Consequence of Non-Compliance to Instruction:</b>	
<ul style="list-style-type: none"> <li>• Extended environmental damage</li> <li>• Injury/death to employee</li> <li>• Injury/death to public/facility user</li> <li>• Violations and/or fines from Regulatory Agencies</li> </ul>	
<b>Reviewed by:</b>	<b>Approved by:</b>
<b>Date:</b>	<b>Date</b>

## APPENDIX 18

# Storage/Handling of Chemicals and Hazardous Substances Standard Operating Procedure

### Purpose and Scope

The use of chemicals and hazardous substances at the Nambucca Waste Management Facility will be limited to paints and solvents for maintenance of site facilities and herbicides/pesticides for controlling pests.

The procedure also addresses the management of hazardous substances imported to the site by users of the waste management facility. These substances include empty paint cans, gas bottles etc

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.

### 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
- Safety Equipment to be worn by the operator when using the substance
- Storage requirements including compatibility with other substances
- Requirements for transport and disposal
- Procedures for cleanup and disposal of spilt product and waste containers
- 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.

A register of MSDSs shall be maintained at the facility and made available for use by all employees at site (refer to Attachment A). All MSDS shall be readily accessible to all employees with potential exposure to those substances.

#### 4. Storage

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.

**5. Handling Hazardous Substances and Dangerous Goods**

- Hazardous substances brought 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.
- Examples of these wastes include paints, chemicals and gas bottles.
- 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.

**Benefit of Compliance to Procedure:**

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

**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 19**

<b>Inspection of Loads</b> <b>Standard Operating Procedure</b>	
<p><b>Purpose and Scope:</b> To ensure that only Permitted Waste is accepted at the Nambucca Waste Management Facility through the adoption and implementation of appropriate vehicle inspection procedures. Primary Environmental Goal – Assuring quality of incoming waste. Benchmark technique 21.</p>	
<p><b>Procedure/Standard:</b> The weighbridge/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/weighbridge. All loads shall be subject to a visual inspection to ensure no excluded wastes are contained within the loads. The weighbridge/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 disposal.</li> <li>3. Any vehicles suspected of containing excluded wastes shall be refused entry until verified otherwise. The weighbridge/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 weighbridge/gatehouse operator shall identify the source and nature of the waste by inquiry.</li> <li>5. At the waste transfer station/tipping face of the waste disposal areas the discharge of wastes from enclosed vehicles is to be inspected by the site controller/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>	
<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>• Impacts on the natural environment 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 20

# Clean Up of Fuel/Oil Spills Standard Operating Procedure

### Purpose and Scope

To define the procedure for the containment, management and cleanup of minor fuel/oil spills at the Nambucca Waste Management Facility.

### Procedure/Standard

#### 1.1.1.3 Definitions

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.

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.

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 company's area manager. 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.

The steps in this procedure shall be as follows:

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.
2. Isolate adjacent drainage points.
3. Dam and contain the spill using the contents of the spill kit.
4. Recover and absorb.

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. 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.

Contain the spill as follows:

- 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.
- If possible stop the spill from spreading by deflecting the oil into another container.
- Form barriers using absorbent material and place on the edge of the spill. (or use any other suitable and available materials, eg soil, sand).
- 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.
- 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.

<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 21

<b>Depositing of Waste Standard Operating Procedure</b>	
<b>Purpose and Scope</b> The purpose of this procedure is to define the procedure for the depositing of waste from collection vehicles or waste transfer bins at the landfill site.	
<b>Procedure/Standard</b> <ol style="list-style-type: none"><li>1. All staff and private contractors engaged in the collection and disposal of waste are to be oriented in the proper management of the landfill site.</li><li>2. Drivers are to undertake a physical inspection of the disposal site and assess the disposal location for risks, such as uneven/sloping ground, obstacles, hazards, unstable ground, sharp objects, moving plant, other vehicles, etc.</li><li>3. The vehicle is to be reversed to the disposal location as directed by the site plant operator, stopped in the appropriate position and brakes applied</li><li>4. The tailgate/tipping body is to be unlatched and/or secured in the open position</li><li>5. The body is to be lifted to the upright position and the waste emptied</li><li>6. The vehicle is to move from the disposal site with the tailgate/tipping body secured in the closed position.</li></ol>	
<b>Benefit of Compliance to Procedure:</b> <ul style="list-style-type: none"><li>• Employee safety is protected</li><li>• Vehicle damage is avoided</li><li>• Adherence to landfill protocols</li></ul>	
<b>Consequence of Non-Compliance to Instruction:</b> <ul style="list-style-type: none"><li>• Employee safety is put at risk</li><li>• Vehicular damage</li><li>• Improper use of landfill</li></ul>	
<b>Reviewed by:</b> <b>Date:</b>	<b>Approved by:</b> <b>Date</b>

**APPENDIX 22**

<b>Dust Management Standard Operating Procedure</b>	
<b>Purpose and Scope</b> The purpose of this procedure is to define the means for controlling the creation and distribution of dust at the Nambucca Waste Management Facility.	
<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 the site staff 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 23

<b>Odour Management Standard Operating Procedure</b>	
<b>Purpose and Scope</b> The purpose of this procedure is to define the means for controlling excessive odours at the Nambucca Waste Management Facility.	
<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 site staff 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>• Examination of incoming loads to ensure only permitted wastes are accepted</li><li>• Placing of cover material at the end of the day's operations, ensuring cover (VENM) is place over all exposed waste</li><li>• Animal carcasses are completely buried within the waste mass</li><li>• Landfill gas management system is installed</li><li>• Routine inspections are undertaken in accordance with the Environmental checklist (see Appendix 27) 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 24

# Covering of Waste/Litter Control Standard Operating Procedure

### Purpose and Scope

To define a procedure for the covering of waste/litter at the Nambucca Waste Management Facility 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 Nambucca Waste Management facility.

- **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 end of each day. 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 to ensure waste is placed against waste.
- It is important to thoroughly compact the waste prior to the placement of the cover. 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 site plant, such as a loader.

#### 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.
- Daily inspection of litter/perimeter fences and clearing 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.
- Vehicles transferring rubbish to the site must have the waste material covered at all times.
- Heavy vehicles leaving the site (from the tipping face) are required to pass through the wheel wash to remove sediment and waste attached to the vehicle.

#### 3. Reporting

Non conformances shall be reported in the weekly inspection checklist. Major non conformances shall be reported to the Waste Management Officer within 48 hours of the non conformance.

### Benefit of Compliance to Procedure:

- Meeting the environmental goal.
- Impacts on the natural environment are 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 25**

**Facility Evacuation  
Standard Operating Procedure**

**Emergency Response**

1. Upon notification of an incident the Chief Warden (**Site Supervisor**) 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 sounds the evacuation alarm/provision of 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
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 and students.
  - (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 Waste Management Officer 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 Waste Management Officer.

**Reviewed by:**  
**Date:**

**Approved by:**  
**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: 40%;">Area Evacuated</th> <th style="width: 30%;">Comments</th> </tr> </thead> <tbody> <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 26

# 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 Nambucca Waste Management facility. 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 1

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 2

Use Attachment A for general pollution incident reporting

Use Attachment B for leachate discharge/overflow reporting

### Note 3

Conditions within the EPL specify the frequency and locations for groundwater and surface water monitoring and these vary from annual, daily and after specific rain events. Monitoring requirements are comprehensive and reflect the adopted methods of leachate capture, treatment and discharge. The EPL should be referenced for individual site requirements and testing regimes to ensure the licence conditions are being met and a pollution event is not occurring.

**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

<ul style="list-style-type: none"> <li>• Time events</li> <li>• Actions taken to mitigate the incident</li> <li>• Details of other actions during the course of the incident management</li> </ul> <p>4. As soon as possible during or immediately following an incident notify the company supervisor or Council's responsible officer 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</p> <p>5. The company staff member, supervisor 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 responsible council officer for recording and reporting to the EPA.</p>	
<p>1.1.1.4 Post Incident</p> <p>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.</p> <p>Following an incident, the Waste Management 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.</p> <p>The Waste Management Officer must, within 24 hours of being notified of a pollution incident, prepare a report documenting activities that took place during the incident.</p> <p>The report of the Waste Management Officer, and all related documentation, will be submitted to Council's responsible officer for review and necessary follow up actions.</p> <p>Where there is potential for litigation in relation to the incident the Waste Management Officer shall prepare a written report for referral to the Council's legal representative</p>	
<p>Attachment:</p> <p>A Pollution Incident Report form</p> <p>B Leachate discharge/overflow Reporting Form</p>	
<p>Benefit of Compliance to Procedure:</p> <ul style="list-style-type: none"> <li>• Details of incident are readily available including information regarding incident response activities</li> <li>• Demonstrated operational competency</li> <li>• Meeting environmental goal</li> </ul>	
<p>Consequence of Non-Compliance to Instruction:</p> <ul style="list-style-type: none"> <li>• Violations and/or fines from Regulatory Agencies</li> </ul>	
<p><b>Reviewed by:</b> <b>Date:</b></p>	<p><b>Approved by:</b> <b>Date:</b></p>

## 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 the Waste Management Officer			
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 27

### Environmental Reporting Checklist

#### Environmental Monitoring Plan

The following procedures define the protocol for undertaking site inspection and audits at the Nambucca Waste Management Facility 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 Landfill Environmental Management Plan (LEMP) 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 Supervisor and verified by <b>Waste Management Officer, Nambucca Shire Council</b>
Site Audit	Quarterly, six monthly	Site Supervisor and verified by <b>Waste Management Officer, Nambucca Shire Council</b>
Environmental Audit	Annual	<b>Waste Management Officer, Nambucca Shire Council</b>

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

## (1) Landfill

The Nambucca Waste Management Facility  
Site Inspection Checklist – Active Landfill and Closed Landfill sites

**Date:**

**Inspected by:**

Issue	Inspection Frequency and Acknowledgement					Satisfactory Y/N	Action Taken	Comments
	Weekly	Week 1	Week 2	Week 3	Week 4			
Perimeter fence line secure and intact	Weekly							
Detention basins – empty and de-silted Silt-stop fences/bags in place	Monthly/ After rain							
Site re-vegetation condition areas are in good condition – no exposed faces, no erosion	Monthly							
Site vegetation control –slashing undertaken, no evidence of noxious weed infestation	Monthly							
Leachate pumps operational Leachate tanks sound, not leaking De-leaching wells not overflowing	Daily							
Leachate dam sound – no erosion, slips, aeration operating	Quarterly							
Leachate drainage lines and discharge lines in place, intact and secure	Monthly							
Intermediate cover applied to filled areas	Quarterly							
Final capping applied in accordance with landform design.	Quarterly							

<b>(1) Landfill (continued)</b>								
The Nambucca Waste Management Facility Site Inspection Checklist – Active Landfill and Closed Landfill sites								
<b>Date:</b>						<b>Inspected by:</b>		
<b>Issue</b>	<b>Inspection Frequency and Acknowledgement</b>					<b>Satisfactory Y/N</b>	<b>Action Taken</b>	<b>Comments</b>
No evidence of erosion of the intermediate capping	Monthly/ After rain							
No evidence of leachate eruption through the capped zone/landfill toe/batters	Monthly/ After rain							
Tipping face being kept to minimum size and configured and shaped for optimal waste placement/compaction	Weekly	Week 1	Week 2	Week 3	Week 4			
Waste placed in 300-400mm layers and the correct compaction pattern applied	Daily	Week 1	Week 2	Week 3	Week 4			
Cover material put in place at the end of the days operation and exposed waste areas completely covered	Daily	Week 1	Week 2	Week 3	Week 4			
Leachate irrigation sprays operating satisfactorily. No blockages, no overspray. Irrigation area vegetation intact. No leachate run-off to adjacent water way. No site saturation.	Daily	Week 1	Week 2	Week 3	Week 4			

No evidence of litter eruption through the capped zone	Monthly							
<b>(1) Landfill (continued)</b>								
The Nambucca Waste Management Facility Site Inspection Checklist – Active Landfill and Closed Landfill sites								
<b>Date:</b>						<b>Inspected by:</b>		
<b>Issue</b>	<b>Inspection Frequency and Acknowledgement</b>					<b>Satisfactory Y/N</b>	<b>Action Taken</b>	<b>Comments</b>
No evidence of litter beyond the active tipping area.	Weekly	Week 1	Week 2	Week 3	Week 4			
Condition and functionality of stormwater infrastructure. Sound.	Monthly/ After rain							
No evidence of sedimentation downstream of wetlands. Discharge from wetlands tested in accordance with EPL requirements, including after rain events	Monthly/ After rain							
No evidence of soil tracking onto road surfaces	Weekly/ After rain	Week 1	Week 2	Week 3	Week 4			
No signs of dust being generation around perimeter of site	Weekly	Week 1	Week 2	Week 3	Week 4			
Surface of hardstand areas intact/repairs or rectification required.	Monthly							

Compliance with facility operating hours	Weekly	Week 1	Week 2	Week 3	Week 4			

**(1) Landfill (continued)**

The Nambucca Waste Management Facility  
Site Inspection Checklist – Active Landfill and Closed Landfill

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

Issue	Inspection Frequency and Acknowledgement	Satisfactory Y/N	Action Taken	Comments				
Septic tank inspected annually and is operational. No evidence of effluent at the absorption trenches.	Weekly	Week 1	Week 2	Week 3	Week 4			
No evidence of feral animal activity	Quarterly							
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 site supervisor

Satisfactory

Unsatisfactory



## (2) Small Vehicle Waste Transfer Station

The Nambucca Waste Management Facility  
Site Inspection Checklist – Small Vehicle Waste Transfer Station

Date:

Inspected by:

Issue	Inspection Frequency and Acknowledgement					Satisfactory Y/N	Action Taken	Comments
Roads and tipping platform free of dirt and debris	Monthly/ After rain							
Asbestos kit and Emergency spill kit on site and fully stocked	Weekly	Week 1	Week 2	Week 3	Week 4			
No evidence of vermin sightings/sound/droppings	Weekly	Week 1	Week 2	Week 3	Week 4			
Unwanted chemicals and hazardous materials properly stored in chemical cabinets	Daily	Week 1	Week 2	Week 3	Week 4			
Good housekeeping – site tidy	Daily	Week 1	Week 2	Week 3	Week 4			
Hose reel in place and tags current	Weekly	Week 1	Week 2	Week 3	Week 4			
Transfer bin lids closed at end of shift	Daily	Week 1	Week 2	Week 3	Week 4			
Test dousing shower and eye wash	Weekly	Week 1	Week 2	Week 3	Week 4			

## (2) Small Vehicle Waste Transfer Station (continued)

The Nambucca Waste Management Facility  
 Site Inspection Checklist – Small Vehicle Waste Transfer Station

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 fuel storage – secured/not leaking/properly sealed/bunded	Weekly	Week 1	Week 2	Week 3	Week 4			
Stockpiles of combustible materials minimised	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 EPA requirements.	Daily	Week 1	Week 2	Week 3	Week 4			
Excessive odours not present	Weekly	Week 1	Week 2	Week 3	Week 4			
Waste transfer bins not being overfilled	Daily	Week 1	Week 2	Week 3	Week 4			

**(2) Small Vehicle Waste Transfer Station (continued)**

The Nambucca Waste Management Facility  
 Site Inspection Checklist – Small Vehicle Waste Transfer Station

Date:						Inspected by:		
Issue	Inspection Frequency and Acknowledgement					Satisfactory Y/N	Action Taken	Comments
Litter controlled around the facility	Weekly	Week 1	Week 2	Week 3	Week 4			
All signage and traffic control operating effectively	Daily	Week 1	Week 2	Week 3	Week 4			

Confirmed by site supervisor



Date:

Satisfactory

Unsatisfactory

Verified by the Waste Management Officer



Date:

Satisfactory

Unsatisfactory

### (3) Stockpiling and Processing Area

The Nambucca Waste Management Facility  
Site Inspection Checklist –Stockpiling and Processing Area

Date:

Inspected by:

Issue	Inspection Frequency and Acknowledgement					Satisfactory Y/N	Action Taken	Comments
Hardstand areas, roads and unloading zone free of excessive dirt and debris	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			
Surface of hardstand areas intact/repairs or rectification required	Monthly/ After rain							
Good housekeeping – site tidy – litter collected	Weekly	Week 1	Week 2	Week 3	Week 4			
No evidence of leachate discharge, oil spills.	Weekly	Week 1	Week 2	Week 3	Week 4			

### (3) Stockpiling and Processing Area

The Nambucca Waste Management Facility  
Site Inspection Checklist –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	Monthly							
Safety exclusion zones in place during mulching, concrete crushing and materials loading	When mulching and loading							
Activities being contained within designated site area.	Weekly	Week 1	Week 2	Week 3	Week 4			
Stockpiles pushed up and accessible								
Excessive odours not present	Weekly	Week 1	Week 2	Week 3	Week 4			
Excessive dust not occurring during concrete crushing	When processing							

### (3) Stockpiling and Processing Area

The Nambucca Waste Management Facility  
 Site Inspection Checklist –Stockpiling and Processing Area

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

Issue	Inspection Frequency and Acknowledgement					Satisfactory Y/N	Action Taken	Comments
	Weekly	Week 1	Week 2	Week 3	Week 4			
Fire hose available and tags current	Weekly							
Contamination being controlled	Weekly							

Confirmed by the site supervisor  Satisfactory  Unsatisfactory  
 Date: \_\_\_\_\_

Verified by the Waste Management Officer  Satisfactory  Unsatisfactory  
 Date: \_\_\_\_\_

## (4) Weighbridge

The Nambucca Waste Management Facility  
Site Inspection Checklist –Weighbridge

Date:

Inspected By:

Issue	Inspection Frequency and Acknowledgement					Satisfactory Y/N	Action Taken	Comments
Entrance and exit roads free of excessive dirt and debris	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			
Roadways and hardstand areas intact/repairs or rectification required	Monthly/ After rain							
Good housekeeping – site tidy – litter collected	Weekly	Week 1	Week 2	Week 3	Week 4			
Evidence of fuel/lubricant contamination/spillage	Weekly	Week 1	Week 2	Week 3	Week 4			
Record of Incidents up to date	Daily	Week 1	Week 2	Week 3	Week 4			

**(4) Weighbridge (continued)**

The Nambucca Waste Management Facility  
Site Inspection Checklist –Weighbridge

Date:

Inspected by:

Issue	Inspection Frequency and Acknowledgement					Satisfactory Y/N	Action Taken	Comments
All signage and traffic control operating effectively	Daily	Week 1	Week 2	Week 3	Week 4			
Activities confined to operational area	Monthly							
First Aid kit on site and fully stocked	Weekly	Week 1	Week 2	Week 3	Week 4			
Fuel containers and fuel storage – secured/not leaking/properly sealed/bunded	Weekly	Week 1	Week 2	Week 3	Week 4			

Confirmed by the site supervisor



Date:

Satisfactory

Unsatisfactory

Verified by the Waste Management Officer



Satisfactory

Unsatisfactory

Date:

## Six Monthly Site Audit

### Six Monthly Site Audit (continued)

The Nambucca Waste Management Facility: Six Monthly Audit Checklist

Date:

Conducted by:

Issue	Activity Frequency and Acknowledgement	Satisfactory Y/N	Action Taken	Comments
Water quality monitoring undertaken (surface water, ground water and leachate) – entries correct and complete	Quarterly			
Register of weekly site inspections – current and complete	Six Monthly			
Gas monitoring undertaken and evaluated	Six monthly			
Review of on-site procedures against EMP undertaken	Six Monthly			
Leachate management system intact and complete (EMP)	Quarterly			
EMP (EMP) understood by staff. Training up to date.	Six Monthly			
Intermediate cover applied to filled areas	Quarterly			
Annual inspection of site building infrastructure undertaken (corrective action initiated if required)	Annually			
Final capping applied in accordance with landform design	Quarterly			
Annual inspection of stormwater infrastructure undertaken (corrective action initiated if required)	Annually			
Surveys undertaken to confirm final landform design is being achieved	Six Monthly			
Review of incident reports and corrective actions	Six Monthly			
Review of inspection undertaken	Quarterly			
Fire Safety Certificate inspection undertaken for all essential fire safety equipment onsite.	Annually			
Weightage test performed.	Annually			
Weightage activities audited by independent third party	Quarterly			
Conditions of EPA licence for facility being verified by the Waste Management Officer	Quarterly			
Volumetric surveys undertaken	Six Monthly	Satisfactory	Unsatisfactory	
Date:				

## Annual Environmental Management Plan Audit

The Nambucca Waste Management Facility: 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, PIRMP, SOPs, registers and reporting	Annual			
Interview with staff site personnel, and lease/facility operators 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			
Annual water quality (surface water, ground water and leachate) and gas monitoring reports prepared. Trend information used in review of EMP	Annual			

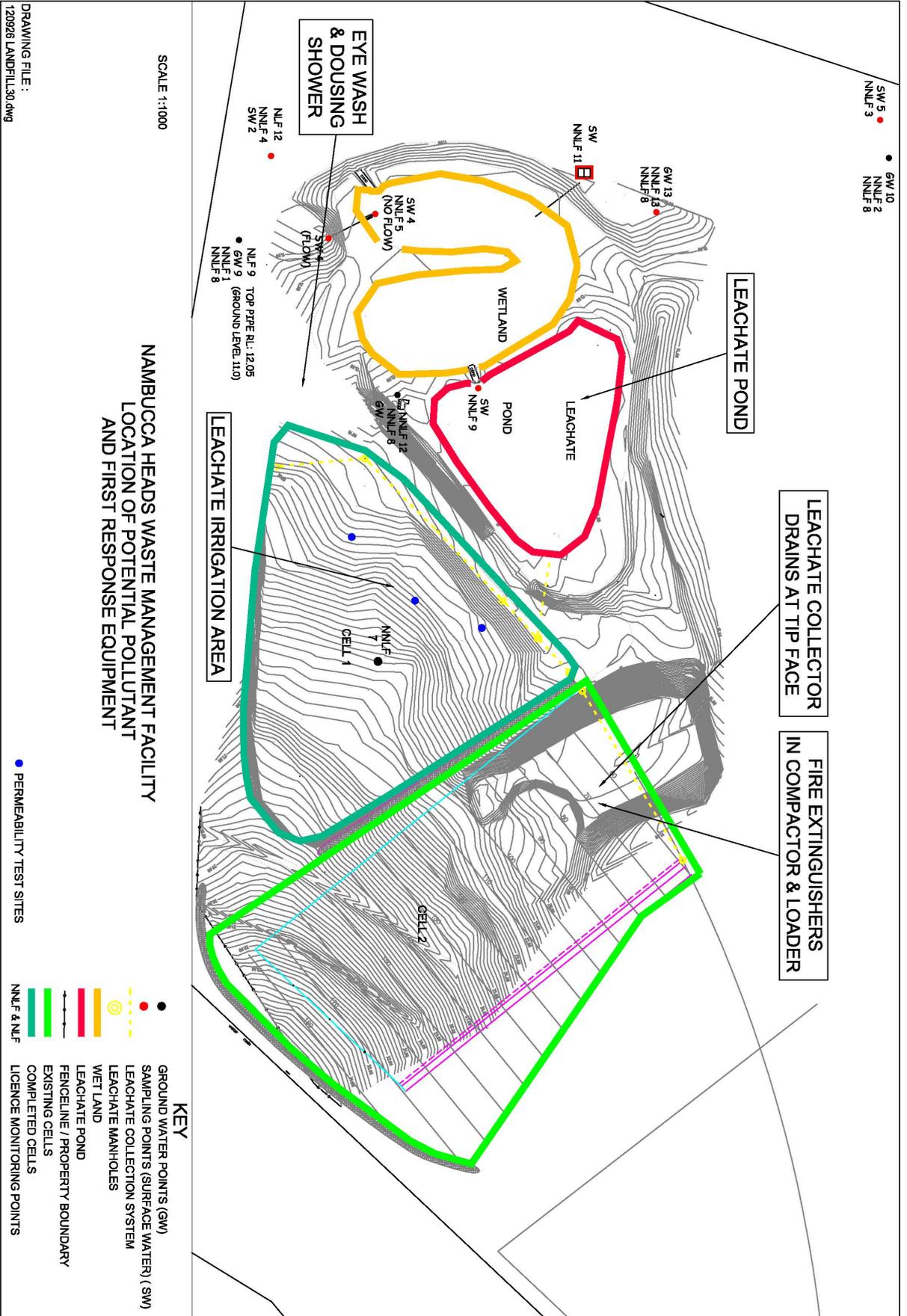
Verified by the Waste Management Officer

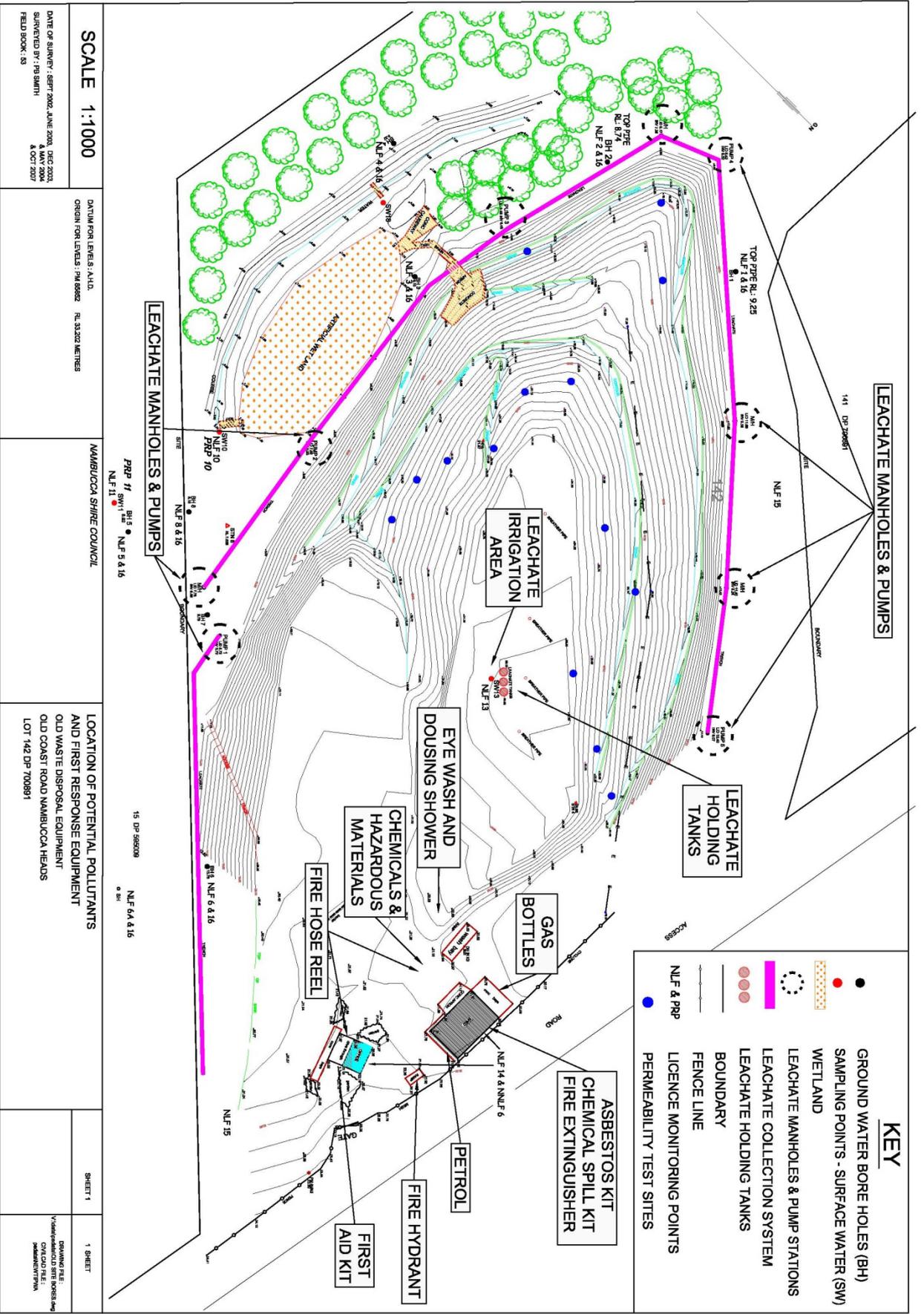
Satisfactory

Unsatisfactory

Date:

# APPENDIX 28 Site Services and Infrastructure Plan





**LEACHATE MANHOLES & PUMPS**

**LEACHATE HOLDING TANKS**

**LEACHATE IRRIGATION AREA**

**EYE WASH AND DOUSING SHOWER**

**CHEMICALS & HAZARDOUS MATERIALS**

**GAS BOTTLES**

**FIRE HOSE REEL**

**PETROL**

**FIRE HYDRANT**

**FIRST AID KIT**

**ASBESTOS KIT  
CHEMICAL SPILL KIT  
FIRE EXTINGUISHER**

- KEY**
- GROUND WATER BORE HOLES (BH)
  - SAMPLING POINTS - SURFACE WATER (SW)
  - WETLAND
  - LEACHATE MANHOLES & PUMP STATIONS
  - LEACHATE COLLECTION SYSTEM
  - LEACHATE HOLDING TANKS
  - BOUNDARY
  - FENCE LINE
  - LICENCE MONITORING POINTS
  - PERMEABILITY TEST SITES

**SCALE 1:1000**

DATE OF SURVEY: SEPT 2002, JUNE 2004, DEC 2004, SURVEYED BY: P/S SMITH & OCT 2007  
FIELD BOOK: 53

DATUM FOR LEVELS: A.M.D.  
ORIGIN FOR LEVELS: 7948682 RL 33.202 METRES

NAMBUCCA SHIRE COUNCIL

LOCATION OF POTENTIAL POLLUTANTS AND FIRST RESPONSE EQUIPMENT  
OLD WASTE DISPOSAL EQUIPMENT  
OLD COAST ROAD NAMBUCCA HEADS  
LOT 142 DP 700891

SHEET 1

1 SHEET

DRAWING FILE: 00582.dwg  
DRAWN BY: CIVILIAN FILE  
PERMANENT FILE

## APPENDIX 29

### Communications Recipient Schedule

Affected Property	Name of Contact	Contact Details	Notes
Lot 151 DP 616887 18 Siding Road North Macksville	Mr MA & Mrs RA McGinley		
Forests NSW	Duty Officer	66520111	