

Ballina Shire Council
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Ballina Shire Council



Pollution Incident Response Management Plan Waste Management Centre

Document Control

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Pollution Incident Response Management Plan Test Records

Test Date	Performed By	Position	CM Ref Number
2/12/2015	Jenny Hellyer	Coordinator Waste Management	15/85523
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31/07/2017	Russell Chaplin	Coordinator Waste Management	19/4047
29/01/2018	Thomas Lees	Treatment Plants Process Engineer	19/4050
17/01/2019	Christine Pitman	Strategic Waste Officer	19/39191

1. INTRODUCTION

This Pollution Incident Response Management Plan (PIRMP) formalises the way pollution incidents at the Ballina Waste Management Centre are reported, managed and communicated to the general community, internal departments and regulatory agencies.

The *Protection of the Environment Operations (POEO) Act 1997* requires licence holders to prepare and implement a pollution incident response management plan.

1.1 Scope

This management plan applies to the Ballina Waste Management Centre (Environment Protection Licence No. 6350). Plans of the site are presented in Appendix 1.

1.2 Objectives

The objectives of this PIRMP are to:

- ensure comprehensive and timely communication about a pollution incident to staff at the premises, the Environment Protection Authority (EPA), other relevant authorities specified in the Act (such as local councils, NSW Ministry of Health, SafeWork NSW, and Fire and Rescue NSW) and people outside the facility who may be affected by the impacts of the pollution incident.
- minimise and control the risk of a pollution incident at the facility by requiring identification of risks and the development of planned actions to minimise and manage those risks.
- 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.

1.3 Legislative requirements

The specific requirements for pollution incident response management plans are set out in Part 5.7A of the POEO Act 1997 and Part 3A of the POEO (General) Regulation 2009. 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 Definition of pollution incident

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.

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.

2. SITE OVERVIEW

The Ballina Waste Management Centre (BWMC) operates on a site 3 km north of the town centre, located at 167 Southern Cross Drive, Ballina (Appendix 1).

The BWMC provides the following waste facilities:

- a community recycling centre for temporary storage of liquid waste, restricted solid waste and hazardous waste associated with the NSW Community Recycling Centres Programme;
- a "southern" landfill for the disposal of putrescible and non-putrescible general solid wastes;
- a processing area for the treatment of liquid waste from vacuum excavation activities;
- a closed "northern" landfill;
- leachate treatment and disposal facilities; and
- a temporary depository for other wastes processed and/or disposed of offsite, including waste tyres, garden waste and recyclables.

The BWMC has 14 leachate pump stations that transfer leachate to the Leachate Treatment Plant (LTP) at the site. The LTP treats approximately 150 kL of leachate daily. The treated leachate is then either discharged to sewer or used to irrigate the capped northern landfill cell.

A general site layout plan is provided in Appendix 1.

2.1 Description and likelihood of hazards

The potential hazards to the environment include:

- Leachate overflow (raw or partially treated) – potentially caused by:
 - Storms (lightning/heavy rainfall/wind) causing power failure or infrastructure damage;
 - Pump blockages;
 - Infrastructure failure due to age;
 - Excessive flows;
 - Mechanical breakdown;
 - Power outage;
 - Treatment plant failure.
- Chemical spill – potentially caused by:
 - Tank/storage failure;
 - Delivery incident;
 - Damage to chemical reticulation;

- Vandalism;
- Inappropriate chemical use;
- Bund failure.

- Fire

A detailed assessment of risks is provided in Appendix 5 Inventory of pollutants

2.1.1 *Nature of wastes received*

The materials received onsite are strictly limited to materials accepted at a general solid waste landfill. The following wastes are permitted at the site:

- general solid waste (putrescible and non-putrescible);
- asbestos waste;
- liquid waste from vacuum excavation activities;
- hazardous, restricted and liquid wastes associated with the Community Recycling Centre (CRC) only; and
- waste tyres.

2.1.2 *Quantity of wastes received*

It is estimated that the site receives about 27,000 tonnes of waste for disposal each year. The site is not currently landfilling onsite, so all material is sorted and transported offsite for further processing, recycling or disposal.

Chemicals/other pollutants stored at the site

The Community Recycling Centre (CRC) is a permanent drop-off facility for the safe disposal of paint, gas bottles, household batteries, fluorescent tubes and globes, and smoke detectors. The materials dropped off are temporarily stored onsite in purpose built stillages, and transported offsite to be recycled.

Other 'by-catch' chemicals received at the BWMC CRC are stored in self-bunded dangerous goods cabinets in the CRC facility.

The following table summarises the estimated maximum volume of waste streams stored onsite at any one time:

Waste Stream	Stockpile volume
putrescible waste	40 tonnes (loaded into multi lift bins daily, no waste stored on the ground)
inert waste/demolition waste	30 tonnes
scrap metal (includes degassed whitegoods)	200 tonnes
green waste	450 tonnes
co-mingled recyclables	40 tonnes
E waste	8 tonnes
tyres	2 tonnes
batteries (car/truck/household)	2 tonnes
oils	3 tonnes
Chemical Recycling Centre (CRC)	
water and oil based paints	Approx. 1.5 tonnes
gas bottles	Approx. 0.7 tonnes
miscellaneous chemicals	Approx. 0.5 tonnes

Other pollutants at the BWMC include:

- Leachate (Maximum storage capacity: 3,400,000 L);
- Gases (stored within the landfill);
- Small quantities of oils and fuels for operation of plant;
- Small quantities of herbicide for weed control practices around buildings.

A register of the chemicals contained onsite is detailed in Appendix 4 - Site Chemical Register.

3. POLLUTION INCIDENT NOTIFICATION PROTOCOL

The POEO Act requires the occupier of premises, the employer or any person carrying out the activity which causes a pollution incident to immediately notify each relevant authority (identified below) when material harm to the environment is caused or threatened.

3.1 Human health or safety incident

Call triple zero “000” if there is an **immediate threat** to human health or safety (try “112” if call is unsuccessful). 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.

3.2 Pollution incident external notification

Council is required to report pollution incidents if there is a risk of ‘material harm to the environment’ immediately to the EPA, NSW Health, SafeWork NSW and Fire and Rescue NSW.

‘Immediately’ has its ordinary dictionary meaning of promptly and without delay.

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 incident reference number provided by each agency is to be recorded. The 24-hour hotline for each authority is given when available:

1	Immediate supervisor	6686 1287
2	EPA Environment Line (written report to be provided within 7 days)	131 555
3	NSW Health (via Public Health Unit - Lismore Office)	1300 555 555 (Pager 149377) . If no answer from page dial 0428 882 805 after hours Environmental Health
4	SafeWork NSW	131 050
5	BSC Environmental Health Officer	1300 864 444 or AH: (02) 6626 6954
6	Fire & Rescue NSW ¹	1300 729 579

1 Note: Fire and Rescue do not need to be contacted again if already contacted via 000.

3.3 Council contacts

The Manager Resource Recovery is the primary contact point in the event of a pollution incident. In the absence of the Manager Resource Recovery, the Team Leader Waste Management is the secondary contact. One of these personnel will be assigned or will assume the role of **Incident Supervisor**.

All communications with emergency response agencies due to incidents that apply to this plan must be made through the Incident Supervisor.

Ballina Shire Council emergency contacts

Position	Name	Contact details
Manager Resource Recovery	John Truman (Acting)	0414 365 408, 6686 1260
Team Leader Waste Management	Tshintia O'Dwyer	0477 808 976, 6681 1562
Strategic Waste Management Officer	Christine Pitman	0419 280 872, 6686 1214

If an event occurs after hours, it is most likely to be reported by a member of the public through Council's Emergency After Hours number. The after-hours service provider will ensure the matter is referred to the relevant Council staff for action.

In all situations where there is damage and/or loss to private property or an injury to a member of the public due to an incident related to this plan contact Council's Work Health & Safety Officer, Human Resources Commercial Officer or the Manager Risk & Human Resources.

Additional Ballina Shire Council contacts

Position	Contact details
Ballina Waste Management Centre	6686 1287
Council Switchboard, business hours	1300 864 444
Council Emergency After Hours	6626 6954
Manager Risk & Human Resources (Margaret Bertoli (acting))	0429 294 109, 6686 1408
Risk and WHS Officer (Stuart Roach)	0408 245 502, 6686 1406
Human Resources Officer (Helen Joblin)	0429 294 124, 6686 1202
Toxfree	1300 869 373, After hours 1800 429 628

4. POLLUTION INCIDENT RESPONSE PROCEDURES

The response actions to a pollution incident at the BWMC are divided into various phases, namely:

- Pre-emptive measures;
- Initial response following a pollution incident;
- Containment or control phase;
- Communication; and
- Review and maintenance.

4.1 Pre-emptive measures

The first priority is to eliminate substances that can become potential pollutants. If this is not possible, physical barriers should be installed to prevent pollutants from entering the environment such as bunding and spill drainage containment.

At BWMC, chemical storages are bunded to ensure that if the storage fails the pollutant is contained.

4.1.1 Leachate system and operational - preventative monitoring and maintenance

Ballina Shire Council uses monitoring and preventative maintenance to reduce the potential for incidents at both the leachate treatment plant (LTP) and the de-leaching wells. The northern landfill de-leaching wells have multiple alarm systems to alert operators of conditions that may result in incidents, which include:

- high level alarms; and
- communication failure alarms.

In the event that these systems fail, wells have the ability to be isolated to prevent further spillages. Preventative monitoring and maintenance tasks are carried out in the following timeframes:

Frequency	Task
Daily	<p>The daily monitoring (Daily Landfill checklist log – F301) is undertaken by an appropriately trained staff member and involves traversing the majority of the site while recording various parameters (e.g. odours, water levels, pump checks etc.).</p> <p>This allows staff to pre-empt incidents and introduce appropriate mitigation measures to reduce the likelihood of pollution incidents.</p> <p>The leachate treatment plant is to be attended daily (Daily Leachate Log – F202) and the following inspected:</p> <ul style="list-style-type: none"> • Maintenance requirements • Chemical quantities • Plant performance data • Housekeeping issues that requiring attention • Vandalism and/or thefts • Issues with bunds • Check bund valves are closed • Alarms workings
Weekly	Reticulation and pump station checks
Monthly	<ul style="list-style-type: none"> • Reticulation and pump station checks: • Alarm testing – power fail, critical float • Rain gauges – Electricians
Quarterly	<ul style="list-style-type: none"> • All valve operations - exercising, maintenance • Inlet Valves - exercising, maintenance • Isolation Valves - exercising, maintenance • Spray and exercise locks • Remove grit from leachate wells with suck truck - Vacuum Truck
Bi-annually	<ul style="list-style-type: none"> • Backup Batteries - (December) • Fire Extinguishers • Overflow Plugs - inspection • Vermin/Insect Protection
Annually	<ul style="list-style-type: none"> • Lopping and pruning of trees surrounding wells • Team Training - New Technologies and Upgrades • Bund integrity

Pump blockages, breaks or distribution issues can result in spills if not acted upon. Therefore the following procedures are to be used to address issues before overflows occur:

- Leachate system inspection record – F302
- Leachate system repair sheet – F203
- Daily landfill checklist log – F301

Council uses a number of methods to mitigate the risk of leachate overflow. These include:

- scheduled maintenance of existing assets
- scheduled renewal of existing assets
- SMS monitoring of leachate pumping stations
- continuous improvement of leachate and landfill system operations
- emergency response procedure to power failures.

4.1.2 *Emergency equipment*

Hazard cones and mesh bunting are available on-site to assist in delineating an incident area. Emergency assembly signage is erected. The emergency assembly location is located in the car park adjacent to the office and staff amenities (refer to Figure 2).

4.1.3 *Communication*

Two-way radios are used by all staff on-site (Site Channel 14) and all staff also carry mobile phones (work or personal), thereby ensuring all staff are contactable. After hours, the rostered On-Call Officer or Waste Management Team Leader will be contacted.

4.1.4 *Traffic control*

All traffic entering and leaving the site is controlled via the weighbridge. This entry and departure process allows all vehicles to be recorded using their number plates. In the event of an incident or emergency, a list of vehicles on the site can be generated to allow for cross checking of individuals on the site and their evacuation (if required). In the event that an incident has caused or occurred during a power failure, the weighbridge has a back-up generator.

Council staff are responsible for the evacuation of the public in a safe and co-ordinated manner should an emergency evacuation be required.

4.1.5 *Planning for bushfire protection*

All staff are to be made aware of the relevant part of Standards for Bush Fire Protection Measures for Special Fire Protection Purpose Developments

(https://www.rfs.nsw.gov.au/_data/assets/pdf_file/0007/97576/DPP1007-Planning-for-Bushfire-Protection-2018-280818-D22.pdf) and AS 3745-2010 Planning for emergencies in facilities.

The internal road system must be kept clear at all times for evacuations and emergency vehicle access.

Adequate water services must be maintained at all times. The location of gas and electricity services must be clearly identified.

4.1.6 *Safety equipment*

A summary of the site safety equipment is provided in the following table.

Type	Use	Location
Personal Protective Equipment (PPE) including but not limited to: <ul style="list-style-type: none">• ear/hearing protection• sunscreen, hat• disposable overalls• rubber gloves• goggles• steel capped boots/gumboots	Personal protection against fumes, smoke, noise, eye irritations, skin irritations	Office, Weighbridge, Leachate Treatment Plant & CRC shed
First Aid & Snake Kits	Treating injuries	Office, Weighbridge, BSC ute (refer to Figures 3 and 4)
Spill Kit	Clean up of liquid spills (e.g. fuels, oils, chemicals)	Transfer Station Area, CRC shed
Water Truck	Suppress dust, combating fires (when appropriate)	Within Waste Management Site
Fire Extinguishers	Combating fires	Office, Weighbridge, Lunch Room, all Plant, Transfer Station Baling Shed, CRC shed, Baling shed (refer to Figures 3 to 5)

Type	Use	Location
Emergency showers	Chemical spills, eye irritations, skin irritations	Transfer Station Area, CRC shed, Office, Baling Shed (refer to Figures 3 and 4)
Buoyancy vest/ring	Floatation aid	Stormwater ponds, leachate pond
Safety Data Sheet's (SDS)	Reference material for chemical spills	Hardcopy available at the Office & CRC shed. Online copies available in the ChemAlert system.

4.2 Actions to be taken immediately after a pollution incident

4.2.1 Initial response phase

Council staff and contractors at the BWMC responding to the incident shall determine the type of incident. Individuals first at the scene are to report the pollution incident to the Manager Resource Recovery or the Team Leader Waste Management.

The Manager Resource Recovery or the Team Leader Waste Management will attend the scene to make an immediate initial visual assessment of the incident scene that will determine the actions to be implemented. The assessment will be directed to:

- saving lives;
- attending to any injured persons;
- isolating the location;
- preventing or extinguishing fires;
- identifying additional hazards;
- determining the actions necessary to prevent further threat to human life, property or environment;
- calling for appropriate help (i.e. Emergency services, Council, EPA, NSW Health, SafeWork, Fire and Rescue) – refer Section 3.2 for details.

In the event of a pollution incident, the Incident Supervisor will assess the situation against the following risk priority assessment to determine actions to be taken including the need to evacuate the site if required.

Priority 1: Very high risk/critical

Very high risk/critical to human health and the environment (e.g. waterways or airborne). The incident is immediate and threatening disruption to normal operations. Immediate implementation of PIRMP required



Priority 2: Medium to high risk

Medium to high risk to human health and environment where pollutant(s) **likely** to enter environment and cause disruption to operations. Implementation of PIRMP required if containment procedures fail. Close monitoring required.



Priority 3: Low to medium risk

Low to medium risk to human health and environment where pollutant(s) **may** enter environment. Incident unlikely to disrupt operations and can be managed under normal site incident response procedures. PIRMP implementation not required.

If the PIRMP is implemented, the Incident Supervisor must complete an Incident Assessment Checklist (Appendix 3) as soon as practical. This is to be used to assist in assessing the situation and to record necessary information to be provided to the EPA and other authorities.

4.2.2 *Emergency services response phase*

000 Contacted

Incident presents immediate threat & triggers implementation of PIRMP. 000 contacted and staff are to evacuate all non-authorised persons (i.e. members of the public).



Staff evacuate or activate Containment & Control Phase

If staff are at immediate risk, evacuate the site and wait for emergency services at entrance of WMC. If deemed safe to do so by Incident Supervisor, staff undertake Containment & Control Phase prior to arrival of emergency services.



Arrival of Emergency Services

Emergency personnel assume responsibility for managing the incident, including assuming initial command and control responsibilities when they arrive at the incident scene.



Emergency Services Briefing

Council staff (and contractors) will fully cooperate with emergency services to provide initial briefing of events leading up to their arrival, and relevant documentation and information (e.g. completed Incident Assessment Form).

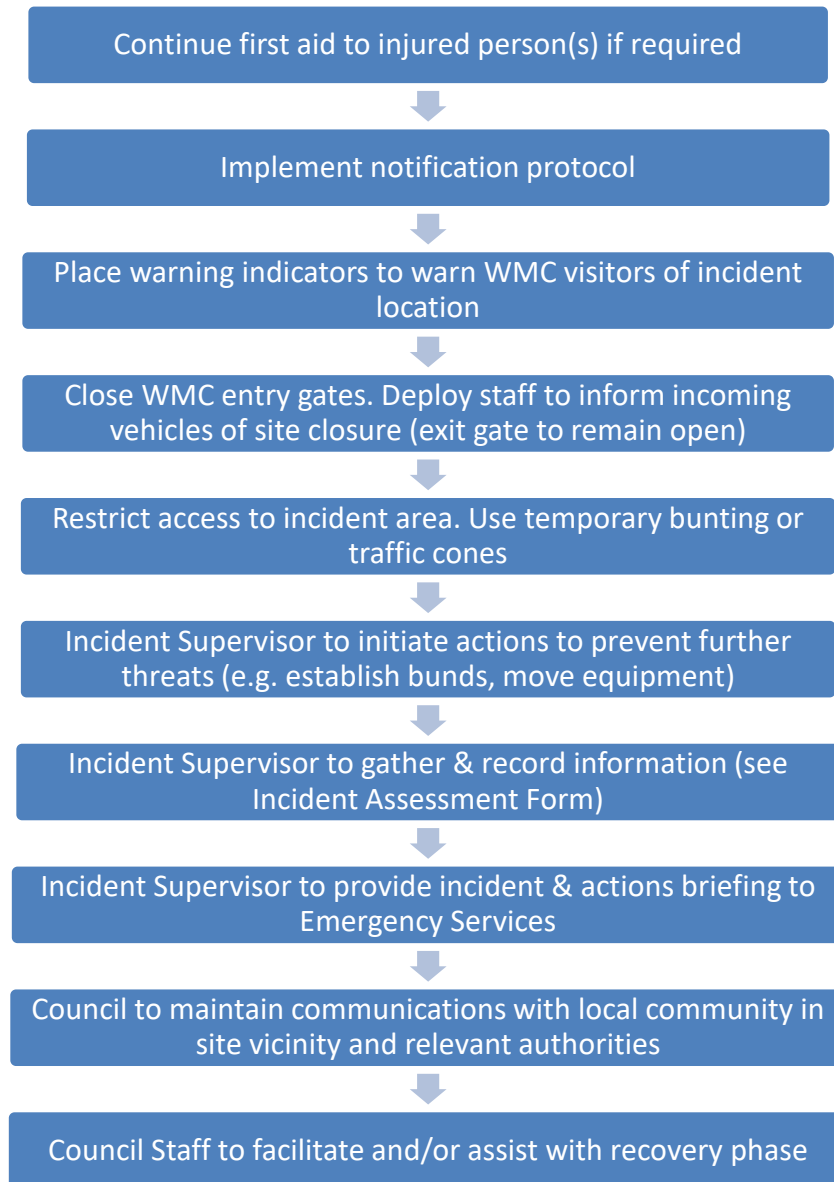


Control responsibilities assumed by Emergency Services

Once control has been assumed by Emergency Services, all Council staff (and contractors) will follow and adhere to all directions and instructions issued by the appointed Emergency Services Incident Supervisor.

4.2.3 **Containment and control phase**

Following completion of the initial incident assessment and prior to arrival of emergency services (if contacted), additional resources and actions should be directed towards the following containment and control phase.



The incident response required depends on the type of incident that has occurred. The following is a list of safe work method statements to be implemented in the event of a related incident:

- Leachate response procedure – P701
- Surface water discharge from irrigation procedure – P306
- Recording of environmental complaints procedure – P101
- Chemical spill response – P703

4.2.4 **Recovery phase**

The recovery phase will focus on:

- Collecting and managing spilt materials, damaged plant and equipment and/or any contaminated items and disposing of appropriately, e.g. PPE items, spill kit consumables etc.;

- Re-establishing normal operational activities;
- Undertaking formal staff debriefing;
- Restocking of resources as required (e.g. spill kit consumables).

4.3 Community notification

In the event of a pollution incident, the local community will be notified on a case by case basis in consultation with regulatory authorities and emergency personnel.

Council will provide notification and communication during and after an incident to advise those affected with information, advice and updates. Notification and communication methods will be determined on a case by case basis considering the nature and severity of the incident and the following methods may be used:

- Phone calls
- Media releases (radio/television/newspaper/internet as required)
- Site visits/door knocking
- Letter drops
- Warning signs
- Other methods as the situation requires

Notification advice will include the nature of the incident, the expected duration and how to prepare and respond to the incident, along with a primary contact at Council as the incident progresses. The local community will be regularly updated throughout the course of the pollution incident and notified once the incident has ceased and clean-up completed.

4.3.1 *Leachate Incidents*

Impacts on the community due to leachate distribution and treatment incidents are variable and depend on location, volumes of spills or other factors.

Communication methods will be used on a case by case basis and Council will provide early warning to directly affected premises (either upstream or downstream depending on tidal impacts where relevant), either by phone call or site visit. Early warning is to include details of the specific incident, how those affected can prepare and respond, and provide important advice such as avoiding contact and use of affected waterways.

Where early warning is not possible, Council will provide notification and communication during and after an incident to advise those affected with information, advice and updates. Notification and communication methods will be determined on a case by case basis and the following methods may be used:

- Phone calls
- Media releases (radio/television/newspaper/internet as required)
- Site visits/door knocking
- Letter drops
- Warning signs
- Other methods as the situation requires

In the event of a chemical or leachate spill into stormwater or waterway, Council staff will go to prominent and/or high use areas of the affected waterway and erect signage to warn water users of the potential contamination and advise them to avoid activities such as swimming, fishing, shell fish collection and boating until contamination has cleared.

In the event of a leachate spill, external authorities provided in Section 3.2 will be notified. In addition, the following list of neighbours and relevant agencies will be contacted directly as soon as practical:

NSW Shellfish Program Manager	0407 078 269
NSW Shellfish Richmond River Coordinator (updated annually) And email nswsp@foodauthority.nsw.gov.au	6686 3394
Oyster Farmers (updated annually):	
Ray Hunt (North Creek)	Home 6686 2282 Mob 0414 884 274
Geoff Lawler (North Creek)	Mob 0412 919 032 Work 6686 3394
NSW DPI Fisheries	1800 043 536
Chemical supplier	Refer to the SDS
Aboriginal Land Council	6686 7055
Police	6681 8699
Rous Water	6623 3800 After hours 6626 6955

Additionally, if the event occurred or was occurring during dry weather, Council staff will attend popular sites including but not limited to North Creek, The Serpentine, and Missingham Bridge and advise users directly.

Contaminated land is to be treated, contained leachate or chemicals pumped out and monitored until background levels are reached.

Regular communication and notification is to be provided until the incident and clean-up of impacted site and affected areas has been complete (e.g. surface waters have returned to background levels). Ballina Shire Council will take signs down and advise the public that regular activities can be resumed through the following communication methods:

- Phone calls
- Media releases (radio/television/newspaper/internet/social media as required)
- Letter drops
- Other methods as the situation requires

5. REVIEW AND MAINTENANCE OF PIRMP

5.1 Incident investigation

All emergencies must be investigated. For all other incidents, the manager (with guidance from review personnel) will decide whether an incident investigation will be conducted. When an incident investigation is required, the Manager Resource Recovery is responsible for:

- forming the investigation team; and
- co-ordinating the investigation.

A de-brief is to be conducted for all emergency incidents. However, the responsible manager may also initiate de-briefs for other incidents where they feel it is appropriate.

Records must be kept of all incidents.

5.2 Staff training and competency

All staff required to implement this plan and associated documents must have training in its use and be inducted into it. This is to ensure they are aware of the content, processes and requirements of this plan and can competently implement it if necessary.

The objectives of training will ensure that staff understand:

- the pollution incident procedures and their roles and responsibilities
- how to activate them in a pollution incident situation; and
- the role of multi-agency teams, how to support each other, mobilise and work together to resolve the pollution incident.

Training will include contractors if necessary. Most contractors will not require training as the majority are only on-site occasionally.

Additionally, relevant staff will be involved in an annual exercise/drill to test the implementation of the plan. In the event of a significant incident, an investigation and debrief will be conducted, documentation updated (if required) and staff will be re-inducted.

Records must be kept of all staff training.

5.2.1 Testing of the PIRMP

The PIRMP must be tested annually. Testing is by way of desktop simulations and practical exercises and drills. The PIRMP will also be tested within one month following any pollution incident occurring.

Records are maintained of all tests, exercises and drills.

5.2.2 Review of the PIRMP

The PIRMP is reviewed by Council every 12 months in conjunction with the aforementioned training and testing components. The PIRMP will be updated as required.

6. RESPONSIBILITY

The Manager Resource Recovery is responsible for the implementation of this Plan.

7. REFERENCES

- EPA NSW (2012) *Environmental Guidelines: Preparation of pollution incident response management plans*
- Local Government Act 1993
- Protection of the Environment Operations Act (1997)
- Protection of the Environment Operations (General) Regulation (2009)
- Public Health Act 2010

8. APPENDICES

- Appendix 1 - Site Plans
- Appendix 2 - PIRMP Flowchart
- Appendix 3 - Incident Assessment Form
- Appendix 4 - Site Chemical Register
- Appendix 5 - Risk assessments and actions

Appendix 1 - Site Plans

Ballina Waste Management Facility

Figure 1

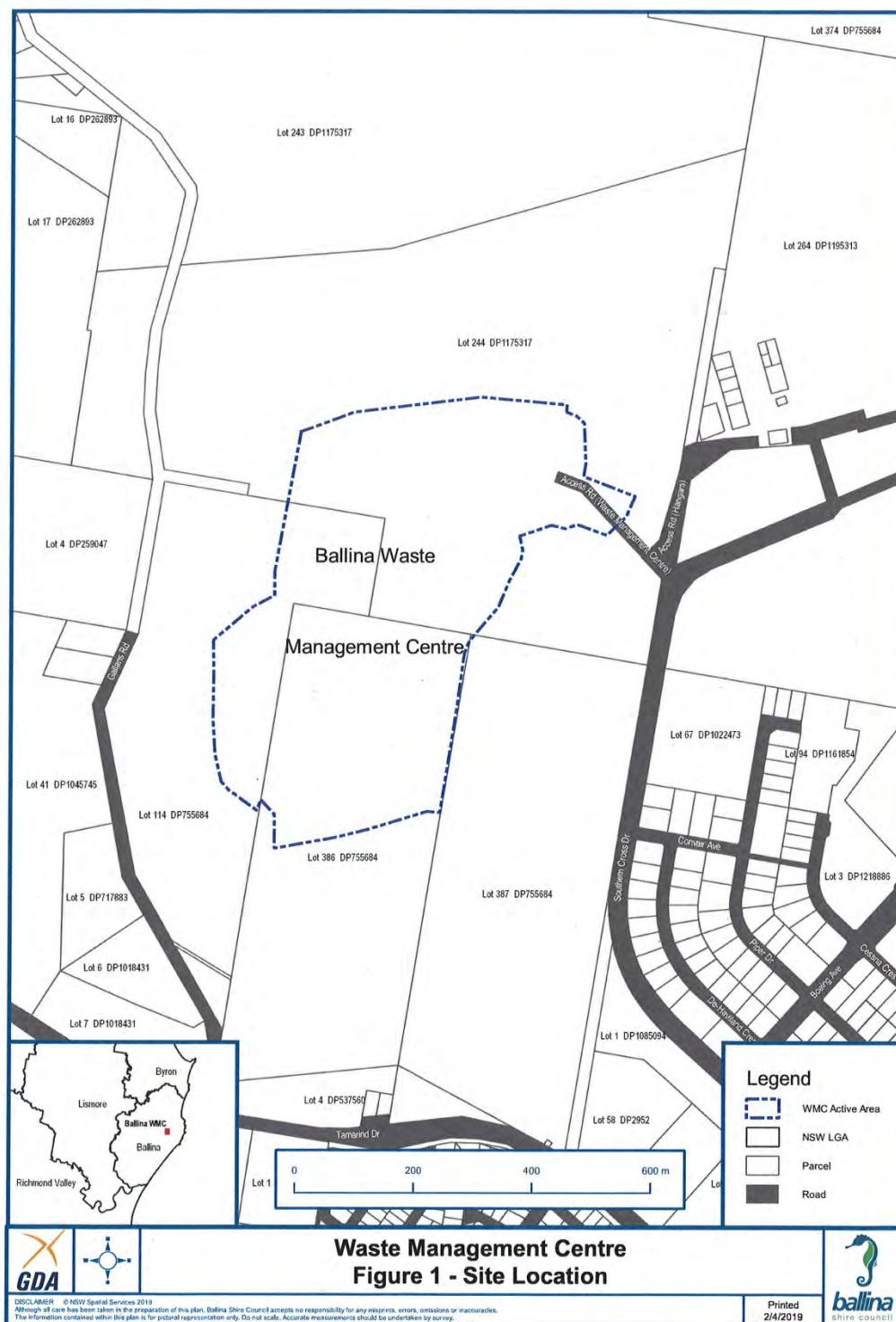


Figure 2

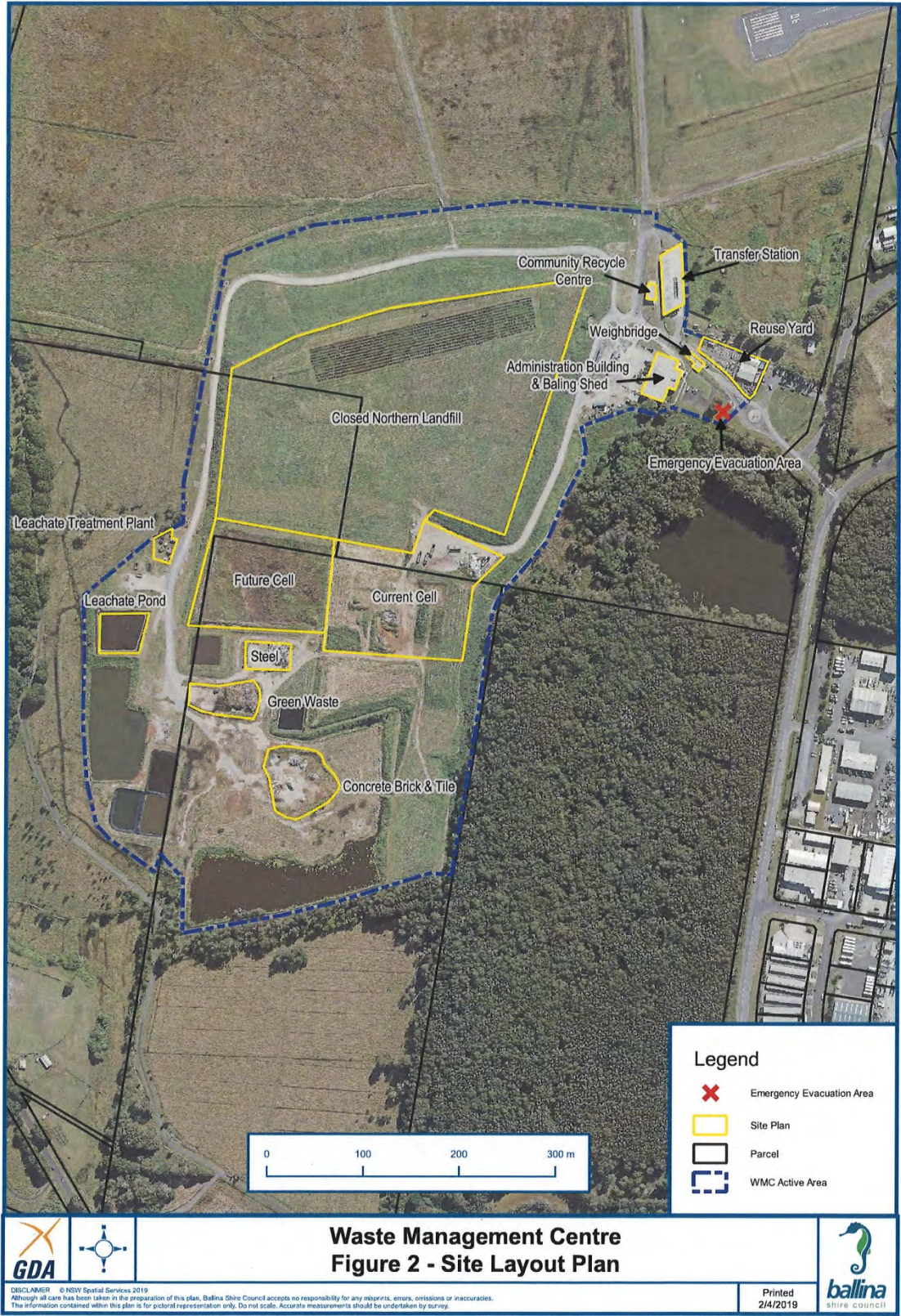


Figure 3 – Evacuation Diagram - ground floor baling shed and amenities

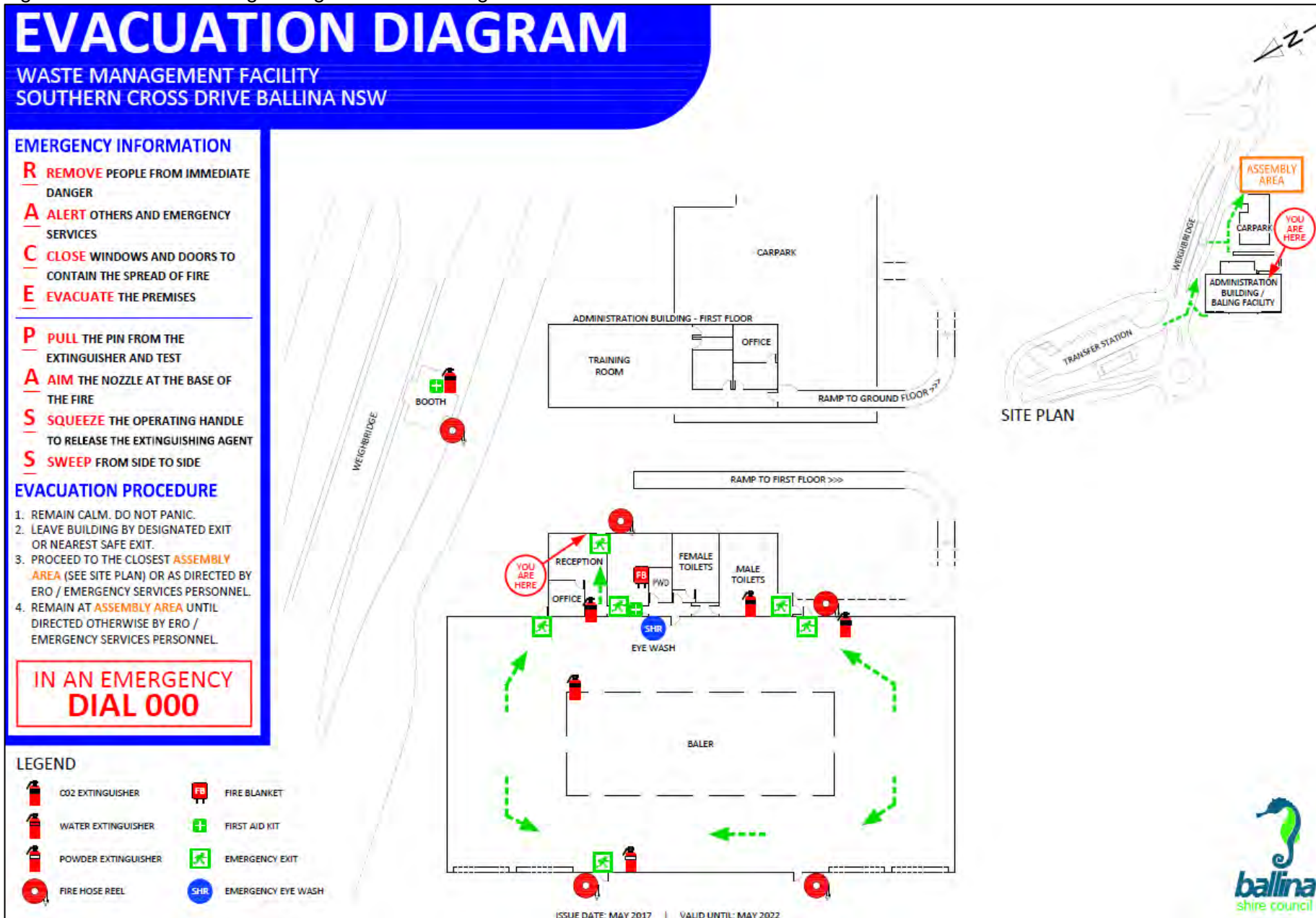


Figure 4– Evacuation Diagram – transfer station

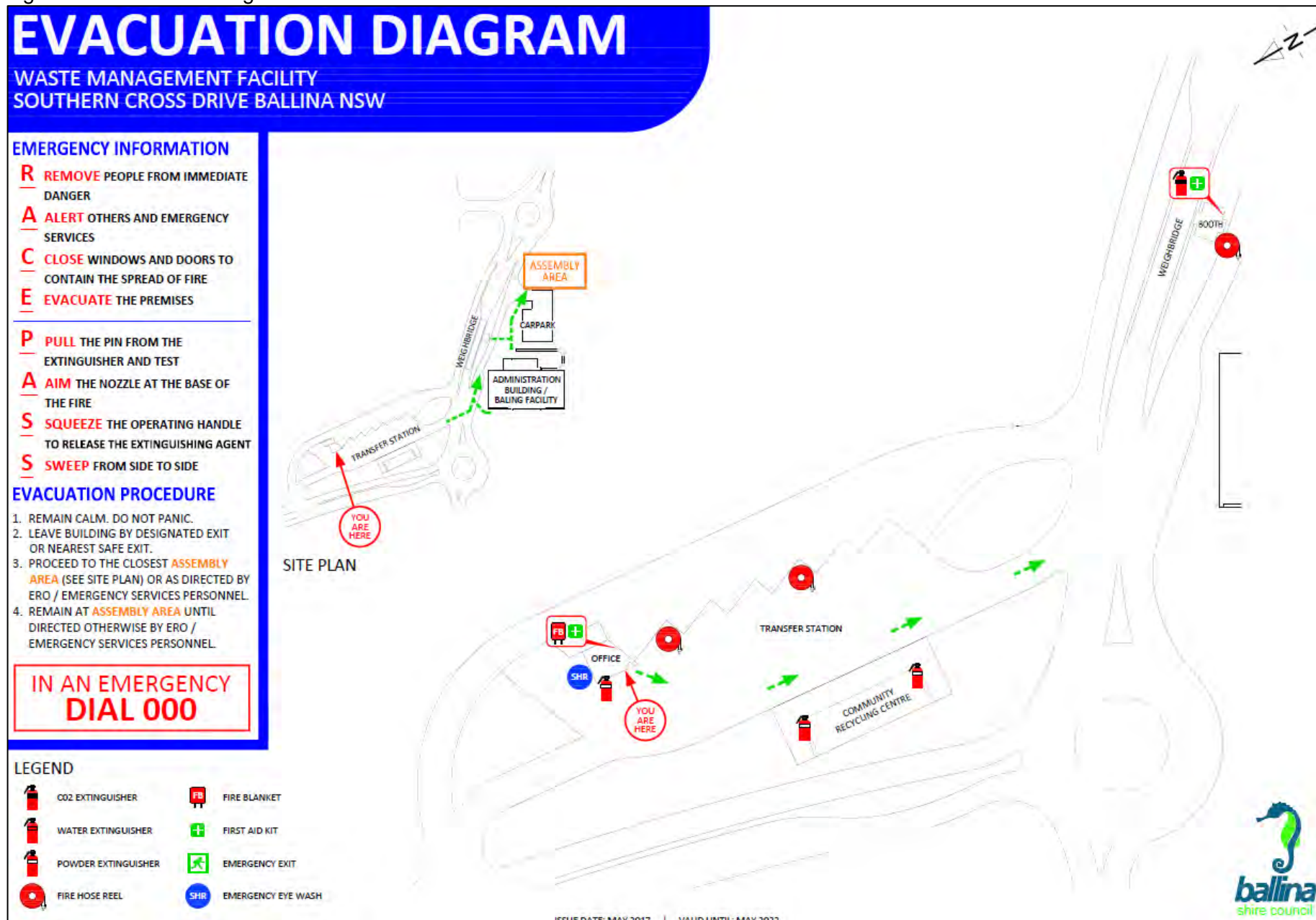
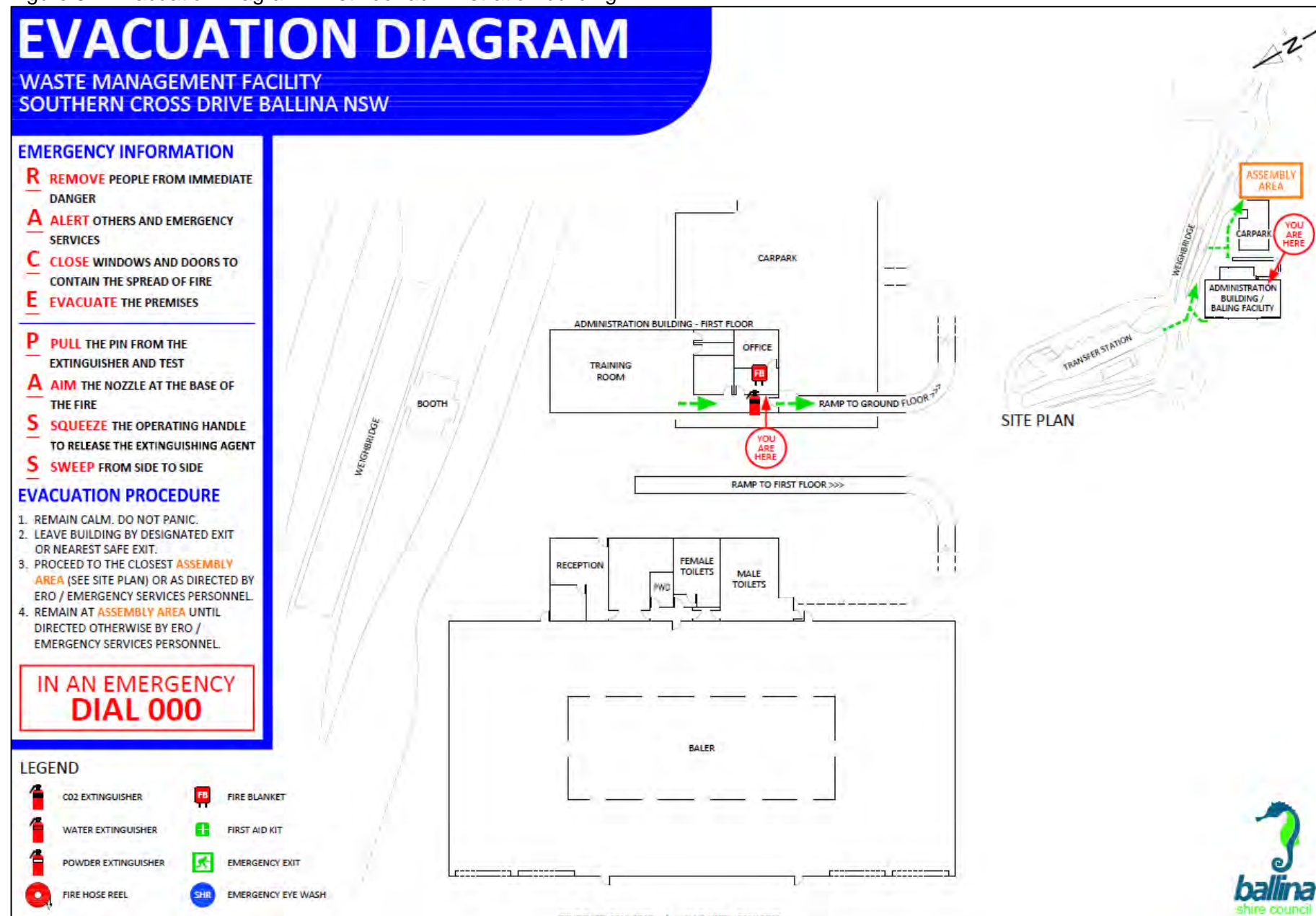
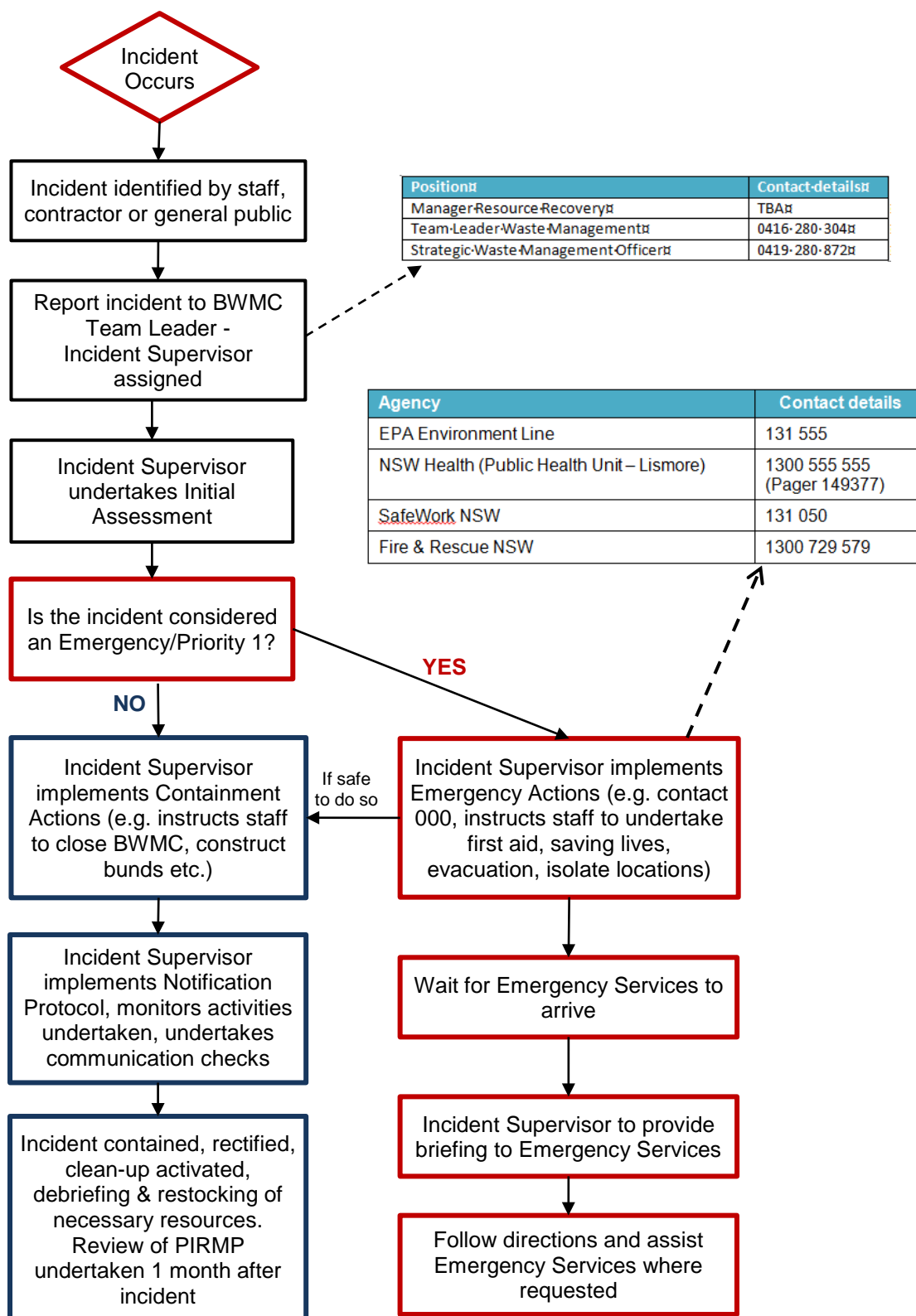


Figure 5 – Evacuation Diagram - first floor administration building



Appendix 2 - PIRMP Flowchart



Appendix 3 - Incident Assessment Form

INCIDENT ASSESSMENT FORM

IS = Incident Supervisor (Council), **S** = Staff, **M** = Manager Resource Recovery, *Phase: IR =Initial Response, ES = Emergency Services; C = Containment; R = Recovery

Item	Management Issue	Actions Strategy	Reference Document	Phase*	Position Responsible	Verification (name, date and signature)
1. Initial Response Phase						
1.1	Provide short description of Incident - including Nature, and Location. Circle relevant incident: a) Leachate b) Fire c) Stormwater d) Noise e) Dust f) Odour g) Other	<p>Location - record of the place where pollution incident is occurring or is likely to occur (i.e. record possible migration path, as best possible)</p> <p>Nature - record estimated quantity or volume and concentration of any pollutants involved (if known)</p> <p>Location – describe as best possible using Figure 2</p>	PIRMP	IR	IS	

Item	Management Issue	Actions Strategy			Reference Document	Phase*	Position Responsible	Verification (name, date and signature)
1.2	Perform Risk Assessment to prioritise incident Actions are guide only	<ul style="list-style-type: none"> List chemicals/materials/pollutants (if possible) 			PIRMP, SDS	IR	IS, S	
1.3	Determine Quantity of spilled material (best estimate) in kg or litres				PIRMP	IR	IS, S	
1.4	Assess Hazard/s	<ul style="list-style-type: none"> Consider Hazard to human health, and the environment 			PIRMP, SDS	IR	IS	
1.5	Consider SDS	<ul style="list-style-type: none"> Re-evaluate hazard in terms of SDS and provide assessment results 			PIRMP, SDS	IR	IS	
1.6	Evaluate the RISK and determine if the pollution incident is very high, medium to high or low to medium pollution risk and whether trivial or not. Circle appropriate risk category:	PRIORITY 1 Implementation of PIRMP required; If incident is immediate and threatening for human health dial 000	PRIORITY 2 Implementation of PIRMP may be required, monitor pollution incident. If containment efforts fail, implement PIRMP	PRIORITY 3 Unlikely PIRMP is to be implemented. Monitor pollution incident and containment activities	PIRMP	IR	IS	

Item	Management Issue	Actions Strategy			Reference Document	Phase*	Position Responsible	Verification (name, date and signature)
2. Emergency Services Response Phase								
2.1	Clear affected area of personnel/individuals Circle Yes or No	Yes No (If no explain why)			PIRMP	ES	IS, S	
2.2	Determine if evacuation of BWMC is necessary Circle Yes or No <i>If No, record personnel or individuals remaining on site and for what purpose (e.g. assisting in containment activities)</i>	If Yes Implement Emergency Evacuation Plan.	If No Name:	Purpose:	PIRMP	ES	IS	
2.3	Check individuals for injuries including contamination Circle Yes or No	Yes No			PIRMP	ES	IS	
2.4	<i>If required:</i> Administer First Aid, Decontaminate individuals (minimum 15 mins in Emergency Shower).	Name:	Contact Details:	Not Applicable	PIRMP	ES	IS	
2.5	<i>If required</i> Dial 000	Name of Call Operator: Name of Paramedic / Police / Firefighter attending the scene:	Reference Number: Contact Details:	Additional Info:	PIRMP	ES	IS	

Item	Management Issue	Actions Strategy	Reference Document	Phase*	Position Responsible	Verification (name, date and signature)
2.6	Contact EPA and other authorities of incident	<p>Implement Notification Protocol (see section 3.2)</p> <p>Provide Details of All Organisations/ Neighbours Contacted</p> <p>Agency:</p> <p>Person Contacted:</p> <p>Reference Number:</p> <p>Contact Number:</p> <p>Details:</p> <p>Agency:</p> <p>Person Contacted:</p> <p>Reference Number:</p> <p>Contact Number:</p> <p>Details:</p> <p>Agency:</p> <p>Person Contacted:</p> <p>Reference Number:</p> <p>Contact Number:</p> <p>Details:</p>	PIRMP	ES	IS, S	

Item	Management Issue	Actions Strategy		Reference Document	Phase*	Position Responsible	Verification (name, date and signature)
2.7	Record all information regarding incident in preparation for arrival of Emergency Services	Ensure all RELEVANT sections are completed		PIRMP	ES	IS, S	
2.8	Provide Incident Report to Emergency Services	Where incident report is incomplete explain status to emergency services and complete report ASAP after incident.		PIRMP	ES	IS, S	
3. Containment or Control Phase							
3.1	Determine appropriate actions to isolate/contain pollutants (if safe to do so)	Describe actions taken 1. 2. 3. 4. 5. 6. 7. 8. 9.		PIRMP	CP	IS, S	
3.2	Contact relevant Council staff/contractor for assistance	Name:	Role:	PIRMP	CP	IS, S	

Item	Management Issue	Actions Strategy			Reference Document	Phase*	Position Responsible	Verification (name, date and signature)
3.3	Monitor containment works	Monitoring Personal	Time and Date	Outcome/ Notes	PIRMP	CP	S	
3.4	Establish Secure Zone	Mark up secure zone on Site Plan (Appendix 1).			PIRMP	CP	S	
3.5	Assign tasks to personnel	Tasks	Personnel		PIRMP	CP	IS	
3.6	Specify equipment and tools for clean-up including PPE	Tools Used	Equipment Used		PIRMP	CP	S	
3.7	Locate and control spilt material	Include any relevant notes			PIRMP	CP	S	

Item	Management Issue	Actions Strategy		Reference Document	Phase*	Position Responsible	Verification (name, date and signature)
	Neutralise and/or adsorb material						
4. Recovery Phase							
4.1	Prepare residue for removal Verify area clear of contaminant Decontaminate reusable equipment	Volume of residual spoil	Location of disposal point	PIRMP	RP	S	
4.2	Debrief personnel involved Circle Yes or No	Name	Position	PIRMP	RP	IS	
4.3	Complete Incident Report Circle Yes or No	Yes	No	PIRMP	RP	IS	

Appendix 4 - Site Chemical Register

Date of register: 2 April 2019

Council maintains its chemical register using the ChemAlert system. Copies are considered uncontrolled when printed.



Stock Register

(Site Name: BALLINA SHIRE COUNCIL/ WASTE MANAGEMENT CENTRE/ Leachate Treatment Plant, Child Sites Not Included)
(Sort By: Product Name, Filter By: None)

Stock Number	Product Name				Supplier (Emergency Contact)				
	Hazardous	Dangerous Good	UN number	Packing Group	Hazchem Code	Status	In Stock Holdings	Risk Assessment	SDS Date
987	3.3M POTASSIUM CHLORIDE				ACCURA ANALYTICAL LABORATORIES PTY LTD (0408 680 712)				
	No	No	-	-	-	None	Yes	-	14 Jan 2017
22268	AUTO CALIBRATION SOLUTION FOR HORIBA U-50/U-10 SERIES				AUSTRALIAN SCIENTIFIC PTY LTD (13 11 26)				
	No	No	-	-	-	None	Yes	-	31 Jan 2017
1027	BUFFER SOLUTION PH 4 COLOUR CODED RED BUFFER				AUSTRALIAN SCIENTIFIC PTY LTD (13 11 26)				
	No	No	-	-	-	None	Yes	-	31 Dec 2016
1026	BUFFER SOLUTION PH 7.0 COLOUR CODED GREEN				AUSTRALIAN SCIENTIFIC PTY LTD (13 11 26)				
	No	No	-	-	-	None	Yes	-	31 Dec 2016
1572	CONDUCTIVITY SOLUTION 1413 US/CM @ 25°C				WATERTEST SYSTEMS PTY LTD (13 11 26)				
	No	No	-	-	-	None	Yes	-	31 Jan 2017
22266	HI 7061 ELECTRODE CLEANING SOLUTION FOR GENERAL USE				HANNA INSTRUMENTS PTY LTD (02 9037 2994)				
	No	No	-	-	-	None	Yes	-	28 Jul 2016
831	HI 93733A-0 NESSLER REAGENT				HANNA INSTRUMENTS PTY LTD (02 9037 2994)				
	Yes	DG 8 / 6.1	UN 2922	PG II	2X	None	Yes	-	17 Oct 2016
832	HI 93733B-0 AMMONIA REAGENT				HANNA INSTRUMENTS PTY LTD (02 9037 2994)				
	No	No	-	-	-	None	Yes	-	20 Jun 2016
1175	LIQUID CAUSTIC SODA 25 - 50%				OMEGA CHEMICALS (1300 131 001)				
	Yes	DG 8	UN 1824	PG II	2R	None	Yes	-	20 May 2016
1575	NESSLER REAGENT (2119449)				HACH PACIFIC (AU) (13 11 26)				
	Yes	DG 8 / 6.1	UN 2922	PG II	2X	Approved - with Restrictions	Yes	-	19 May 2016
305	SODIUM CARBONATE				IXOM OPERATIONS PTY LTD (FORMERLY ORICA CHEMICALS) (1 800 033 111 (ALL HOURS))				
	Yes	No	-	-	-	None	Yes	-	06 Jul 2015

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Stock Register

(Site Name: BALLINA SHIRE COUNCIL/ WASTE MANAGEMENT CENTRE/ Office/Baler Building, Child Sites Not Included)

(Sort By: Product Name, Filter By: None)

Stock Number	Product Name				Supplier (Emergency Contact)				
	Hazardous	Dangerous Good	UN number	Packing Group	Hazchem Code	Status	In Stock Holdings	Risk Assessment	SDS Date
557	ANTI-BACTERIAL HAND SOAP				STAY SAFE PTY LTD ((03) 9357 8713)				
	No	No	-	-	-	None	Yes	-	(PRODUCT OBSOLETE)
9	CASTROL GARDEN 2T				CASTROL AUSTRALIA PTY LIMITED (+612 8014 4558 (1800 14 74 74))				
	Yes	No	-	-	-	Approved - with Restrictions	Yes	-	07 Mar 2017
10	CASTROL PREMIUM HEAVY DUTY				CASTROL AUSTRALIA PTY LIMITED (+612 8014 4558 (1800 14 74 74))				
	No	No	-	-	-	Approved - with Restrictions	Yes	-	14 Feb 2018
553	CAT DEO ENGINE OIL SAE 15W-40				CATERPILLAR OF AUSTRALIA PTY LTD (13 11 26)				
	No	No	-	-	-	None	Yes	-	31 Mar 2016
788	CHAIN AND CUTTER BAR LUBE				VALVOLINE (AUSTRALIA) PTY LTD (1800 804 658, New Zealand (02) 8603 2300)				
	No	No	-	-	-	None	Yes	-	28 Feb 2018
22267	COLES BRAND SUPER STRENGTH DISHWASHING LIQUID - LEMON				COLES SUPERMARKETS (13 11 26)				
	Yes	No	-	-	-	None	Yes	-	20 Dec 2016
232	DEGREASER				BP AUSTRALIA PTY LTD (1800 14 14 74 within Australia or +61 2 8014 4558)				
	Yes	DG 9	UN 3082	PG III	•3Z	Approved - with Restrictions	Yes	-	07 Mar 2016
75	ENVIRO DRYSORB				CYNDAN CHEMICALS (1800 812 309)				
	No	No	-	-	-	Approved - with Restrictions	Yes	-	03 Jan 2017
1403	FOR EARTH BIO				FOR EARTH PTY LTD ((02) 6581 4353)				
	No	No	-	-	-	None	Yes	-	21 Nov 2014
5051	GREENLUBE EP-2				GROENEVELD AUSTRALIA PTY. LTD. ((03) 8329 4333)				
	No	No	-	-	-	None	Yes	-	04 Mar 2014
561	HYGENEX SHIFTWORKER HEAVY DUTY HAND CLEANSER				SCA HYGIENE AUSTRALASIA PTY LIMITED ((03) 9550 2999)				
	No	No	-	-	-	None	Yes	-	(PRODUCT OBSOLETE)
102	INOX-MX3				CANDAN INDUSTRIES PTY LTD ((07) 5574 8205)				
	No	No	-	-	-	Approved - No Restrictions	Yes	-	31 Dec 2016
552	INSAKILL - SOLVENT BASED				CYNDAN CHEMICALS (1800 812 309)				

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Stock Register

(Site Name: BALLINA SHIRE COUNCIL/ WASTE MANAGEMENT CENTRE/ Office/Baler Building, Child Sites Not Included)

(Sort By: Product Name, Filter By: None)

Stock Number	Product Name				Supplier (Emergency Contact)				
	Hazardous	Dangerous Good	UN number	Packing Group	Hazchem Code	Status	In Stock Holdings	Risk Assessment	SDS Date
772	Yes	No	-	-	-	None	Yes	-	22 Jan 2017
	LEMON FRESH				BUSHBY CLEANING PRODUCTS (0429 339 134)				
554	Yes	No	-	-	-	None	Yes	-	05 Dec 2016
	LYTWHITE WHITE BOARD CLEANER				J. ROGER JENKINS LTD ((03) 474 7000)				
149	No	No	-	-	-	None	Yes	-	(PRODUCT OBSOLETE)
	METHYLATED SPIRITS				RECOCHEM INC ((07) 3308 5200; 1300 131 001 (After hours)/ 0800 764 766)				
348	Yes	DG 3	UN 1170	PG II	•2YE	Approved - with Restrictions	Yes	-	20 Feb 2017
	MORTEIN SURFACE SPRAY AEROSOL				RECKITT BENCKISER (AUSTRALIA) PTY LTD (13 11 26)				
642	Yes	DG 2.1	UN 1950	-	2YE	None	Yes	-	(PRODUCT OBSOLETE)
	ODOURLESS				CASTLE CHEMICALS PTY LTD ((02) 4014 5555)				
1173	Yes	No	-	-	-	None	Yes	-	31 Jan 2015
	PROSAFE MITYWIPE LENS WIPES				OPTICA LIMITED (NZ) (+64 3 982 9898)				
22134	No	No	-	-	-	None	Yes	-	07 Jun 2016
	Q WASH				QUALITY AUTO TREATMENTS ((07) 3204 8511)				
178	No	No	-	-	-	None	Yes	-	14 Jan 2017
	RODEX B RAT BLOCKS				CYNDAN CHEMICALS (1800 812 309)				
240	No	No	-	-	-	Approved - with Restrictions	Yes	-	22 Jan 2017
	ROUNDUP HERBICIDE				SINOCEM INTERNATIONAL AUSTRALIA PTY LTD (1800 033 111; (03) 9663 2130)				
382	Yes	DG 9	UN 3082	PG III	•3Z	Approved - with Restrictions	Yes	-	14 Oct 2016
	SENTINEL AUTOMATIC DISPENSED PYRETHRUM INSECTICIDE				CYNDAN CHEMICALS (1800 812 309)				
841	Yes	DG 2.1	UN 1950	-	3WE	None	Yes	-	22 Jan 2017
	SEPTONE DEGREASE-ALL				ITW AAMTECH AUSTRALIA (1800 638 556/ 1800 039 008/ 1800 039 008/ 1800 039 008)				
555	Yes	No	-	-	-	Approved - No Restrictions	Yes	-	21 Apr 2016
	SEPTONE PROTECTA GRIT				ITW AAMTECH AUSTRALIA (1800 638 556/ 1800 039 008/ 1800 039 008/ 1800 039 008)				
274	No	No	-	-	-	None	Yes	-	31 Aug 2015
	SHELL UNLEADED PETROL 91				VIVA ENERGY AUSTRALIA LTD (FORMERLY SHELL COMPANY OF AUSTRALIA) (1800 651 818)				

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Stock Register

(Site Name: BALLINA SHIRE COUNCIL/ WASTE MANAGEMENT CENTRE/ Office/Baler Building, Child Sites Not Included)

(Sort By: Product Name, Filter By: None)

Stock Number	Product Name				Supplier (Emergency Contact)				
	Hazardous	Dangerous Good	UN number	Packing Group	Hazchem Code	Status	In Stock Holdings	Risk Assessment	SDS Date
387	Yes	DG 3	UN 1203	PG II	3YE	Approved - with Restrictions	Yes	-	18 Jul 2016
	TWO STROKE LAWN MOWER OIL				CALTEX AUSTRALIA PETROLEUM PTY LTD (1800 033 111)				
431	No	No	-	-	-	None	Yes	-	09 Mar 2016
	WEEDMASTER DUO DUAL SALT TECHNOLOGY HERBICIDE				NUFARM AUSTRALIA LIMITED (1800 033 498)				
	No	No	-	-	-	None	Yes	-	31 Mar 2017

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Appendix 5 - Risk assessments and actions

Methodology

1. Determine Consequence and Likelihood Definitions
2. Determine Risk Definitions
3. Determine Inherent Risk. Inherent risk is based on the hazardous containments that may be present
4. Devise Hazardous Events.
5. For each hazardous event, determine possible causes, raw risk characteristics, existing control measures, residual risk characteristics and any further improvements required.

Items 3 to 5 are in the attached spreadsheet.

Consequence and Likelihood Definitions

LIKELIHOOD	RARE	Only ever occurs under exceptional circumstances	
	UNLIKELY	Conceivable but not likely to occur under normal operations; no evidence of previous incidents	
	POSSIBLE	Not generally expected to occur but may under specific circumstances	
	LIKELY	Will probably occur at some stage based on evidence of previous incidents	
	ALMOST CERTAIN	Event expected to occur most times during normal operations	
HAZARD TYPE		HEALTH & SAFETY	ENVIRONMENTAL
CONSEQUENCE	INSIGNIFICANT	First aid only required	<ul style="list-style-type: none"> Minor impact to environmental amenity <\$1,000 to rehabilitate
	MINOR	Minor medical treatment with or without potential for lost time	<ul style="list-style-type: none"> Damage to environmental amenity \$1,000 - \$10,000 to rehabilitate
	MODERATE	Significant injury involving medical treatment or hospitalisation and lost time	<ul style="list-style-type: none"> Short term impact to ecosystem function Damage to environmental amenity \$10,000 - \$50,000 to rehabilitate
	MAJOR	Individual fatality or serious long term injury	<ul style="list-style-type: none"> Long term impact to ecosystem function Damage to environmental amenity \$50,000 - \$100,000 to rehabilitate
	CATASTROPHIC	Multiple fatalities or extensive long term injury	<ul style="list-style-type: none"> Damage to unique habitat or threatened species irreparable impact to ecosystem function wide spread damage to environmental amenity >\$100,000 to rehabilitate

Risk Definitions

LIKELIHOOD	CONSEQUENCE				
	Insignificant	Minor	Moderate	Major	Catastrophic
Almost Certain	Medium	High	High	Extreme	Extreme
Likely	Medium	Medium	High	High	Extreme
Possible	Low	Medium	High	High	High
Unlikely	Low	Low	Medium	Medium	High
Rare	Low	Low	Medium	Medium	High

Hazard	Source	Quantity	Health Impact with Acute Exposure	Environmental Impact with Acute Exposure
Leachate				
Leachate overflow	Leachate wells & pond	?	Medium	High
Fire	Unknown		High	High
Chemicals				
Sodium Hydroxide	Odour Control Dosing Unit	1,000 L	Serious Injury	Medium
Refer to SDS for Complete List	Chemical storage	Medium	Injury / Illness	Medium

No	Hazardous Event	Limiting Hazard	Weather	Cause	Raw Consequence	Raw Likelihood	Raw Risk	Control Measures	Residual Consequence	Residual Likelihood	Residual Risk	Improvements Required/ Comments
1	Leachate spill onto land	methane, carbon dioxide, heavy metals, ammonia & pathogenic micro-organisms	Dry	Damage, blockage, pump failure, power failure	Moderate	Likely	High	Reticulation maintenance, lightning protection, standby generators, SMS monitoring and alarms, duty-standby pump arrangement, signage, communications, Spill Procedures	Moderate	Rare	Medium	Pump Improvement (PRP100)
			Rain	Damage, blockage, pump failure, power failure	Moderate	Likely	High	as above, inflow and infiltration investigate and rectification works	Moderate	Rare	Medium	Pump Improvement (PRP100)
			Flood	Inundation	Moderate	Likely	High	switchboards constructed above flood levels, communications	Minor	Rare	Low	
2	Leachate spill into environmental waterway	methane, carbon dioxide, heavy metals, ammonia & pathogenic micro organisms	Dry	Damage, blockage, pump failure, power failure	Moderate	Likely	High	Reticulation Maintenance, lightning protection, standby generators, SMS monitoring and alarms, duty-standby pump arrangement, signage, communications, Spill Procedures	Moderate	Rare	Medium	Pump Improvement (PRP100)
			Rain	Damage, blockage, pump failure, rising main break, pump truck spill, power failure, excessive inflow and infiltration, inadequate pump capacity	Moderate	Likely	High	as above, inflow and infiltration investigate and rectification works	Moderate	Rare	Medium	Pump Improvement (PRP100)
			Flood	Inundation	Moderate	Likely	High	switchboards constructed above flood levels, communications	Moderate	Rare	Medium	
3	Sodium hydroxide spill onto land	Sodium Hydroxide	Any	rupture in tank, failure in valves, PLC etc	Minor	Likely	Medium	maintenance, monitoring	Minor	Rare	Low	

No	Hazardous Event	Limiting Hazard	Weather	Cause	Raw Consequence	Raw Likelihood	Raw Risk	Control Measures	Residual Consequence	Residual Likelihood	Residual Risk	Improvements Required/ Comments
4	Overflow of leachate at well or pond	methane, carbon dioxide, heavy metals, ammonia & pathogenic micro-organisms	Dry	Blockage, mechanical, electrical & control failure	Moderate	Likely	High	Maintenance, lightning protection, SMS monitoring and alarms.	Moderate	Rare	Medium	
			Rain	Blockage, mechanical, electrical & control failure, excessive inflow	Moderate	Likely	High	as above, inflow and infiltration investigate and rectification works	Moderate	Rare	Medium	
			Flood	Inundation	Moderate	Likely	High	as above, turn affected wells to closed	Minor	Rare	Low	
5	Discharge of partially treated leachate	methane, carbon dioxide, heavy metals, ammonia & pathogenic micro-organisms	Dry	mechanical, electrical & control failure	Moderate	Likely	High	Maintenance, lightning protection, SMS monitoring and alarms.	Moderate	Rare	Medium	
			Rain	Blockage, mechanical, electrical & control failure, excessive inflow	Moderate	Likely	High	continual monitoring of freeboard in leachate pond, wet weather bypass	Minor	Rare	Low	
			Flood	Inundation	Moderate	Likely	High	as above	Minor	Rare	Low	
6	Chemical spill on site	Chemicals (acid, alkaline)	Any	Blockage, mechanical, electrical & control failure, incorrect hook up to truck	Minor	Likely	Medium	Maintenance, lightning protection, monitoring.	Minor	Rare	Low	
7	Chemical spill during delivery / transport	Chemicals (acid, alkaline)	Any	accident, mechanical failure	Minor	Likely	Medium	bunding, supervision, induction, procedures, competent delivery drivers, road rules	Minor	Rare	Low	
8	Landfill fire	Incomplete combustion of Persistent Organic Pollutants (POPs), Polychlorinated dibenzo-p-dioxins (PCDD), Polychlorinated dibenzo furans (PCCFs)	Any	accident, mechanical failure, spontaneous combustion	Major	Possible	High	supervision, induction, procedures, early detection, spear points	Moderate	Unlikely	Medium	
9	Fire	POPs, PCDDs, PCCFs	Any	accident, mechanical failure, spontaneous combustion, batteries and other combustibles	Major	Possible	High	supervision, induction, procedures, early detection, stockpile management	Minor	Unlikely	Low	