



**Pollution Incident Response
Management Plan
for
Dunmore Resource Recovery Centre
(EPL 12903)
Report No 11501 June 2018**



Executive Summary

The Dunmore Recycling and Waste Disposal Depot is comprised of two licenced sites. One site is the Resource Recovery Centre on EPL 12903, which includes the Transfer Station, Administration Office/Education Centre and Food Organics Garden Organics (FOGO) Processing Plant. The second site represents the Dunmore Waste Facility that applies waste to landfill on EPL 5984.

This Pollution Incident Response Management Plan (PIRMP) has been developed for the Resource Recovery Centre operating under Environmental Protection Licence 12903.

This document has been set out to fulfil the requirements of Part 5.7A of the “*Protection of the Environment Operations Act 1997*” and contains the details required for pollution incident response management plans as set out within Part 3A of the “*Protection of the Environment Operations (General) Regulation 2009*”. The content of this plan includes:

- 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, WorkCover 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.

This PIRMP is a working document that requires the changes to site conditions, operating procedures or licence requirements, to be reviewed and incorporated where applicable.

Following is a summary of the immediate steps to be taken in the event of a pollution incident. This document is reviewed after any incident and following the yearly simulation exercise. Refer to Table 1, “Table of Revisions”

Table 1: Table of Revisions

Document Title	Date Issued	Author/Reviewer	Organisation	Details
112034_PIRMP_V0	30 August 2012	Daniel Robinson	Environmental Earth Sciences NSW	PIRMP
112034_PIRMP_V1	31 August 2012	Daniel Robinson	Environmental Earth Sciences NSW	Changes required by council.
112034_PIRMP_V2	11 September 2012	Daniel Robinson	Environmental Earth Sciences NSW	Addition of Flow chart and council changes
112096_PIRMP-DRWDD EPL 5984 & 12903 V3	28 April 2015	Nicole Cheung	Environmental Earth Sciences NSW	Reviewed by Shellharbour City Council Waste Services
Dunmore Resource Recovery Development Project Management Plan	16 February 2016	Duncan Moffitt (02) 4239 5700	Project Coordination Australia Pty Ltd 2 Lady Penrhyn Drive Unanderra NSW	Dunmore Resource Recovery Development construction environmental management plan
11500 PIRMP Resource Recovery Centre	20 September 2017	Dianne Tierney	SCC Waste Services	Document updated prior to site re-opening after construction.
11501 PIRMP Resource Recovery Centre EPL 12903	June 2018	Dianne Tierney	SCC Waste Planning	Document updated after testing the Plan

Summary of Pollution Incident Response

In the event of a pollution incident			Section of Report
Step 1	Contact Site Supervisor	Site Supervisor (0421 044 158)	Section 10
Step 2	Is there an immediate threat to human health and the environment?	Call emergency Services (000) or 112 for mobile phones	Section 10
Step 3	Does the site need to be evacuated?	Initiate evacuation procedure Safely follow pollution incident procedures	Section 8.2.6
Step 4	Waste Depot Supervisor to contact Group Manager Asset Strategy and Team Leader Waste Planning of Shellharbour City Council to inform them of the incident	Follow the pollution incident response plan contacting the relevant authorities as required	Section 6
Step 5	Additional staff responsibilities		Section 6
Onsite Staff	Waste Depot Supervisor	Team Leader Waste Planning – Shellharbour City Council	
Assist with Clean Up	Coordinate onsite plan	Call relevant regulatory authorities (EPA, Worksafe) following order specified in Table 8	
Follow instructions of Waste Depot Supervisor	Barricade off area and notify staff onsite	Engage appropriate consultants	
	Complete incident reporting form	Submit incident report form to EPA.	
Waste Planning	Technical Waste Officer	Review PIRMP within 30 days of report.	

It is expected that all sections of this document are read, and the appropriate training undertaken, prior to responding to an incident.

Technical Waste Officer

Dianne Tierney
Technical Waste Officer
Shellharbour City Council

Technical Reviewer

Amanda Andrews
Administration Officer Waste Planning
Shellharbour City Council

Report No 11501 June 2018

Table of Contents

Section	Description	Page
	Executive Summary	2
	Table of Revisions	3
1	Introduction	6
2	Description and Likelihood of Hazards	11
3	Preventative and Incident Management	14
4	Inventory of Pollutants	19
5	Safety Equipment	20
6	Contact details	21
7	Communication	22
8	Minimising harm to persons on the premises	24
9	Attachments	28
10	Actions during and after incident or pollution event	29
11	Staff Training	32
12	Testing of the Plan	37
13	References	38
14	Figures	
	Site Boundaries	39
	Historical Filling on Site	40
	Groundwater Contours	41
	Re.Grow Site Lay Out	42
	Pollutants Onsite	43
	Drainage and Surface Water Flow Direction	44
	Site Map and Evacuation Muster Point	45
15	Appendixes	
	Incident Report Form	46
	Incident Investigation Report	47
	SafeWork NSW Incident Notification Fact Sheet	48
	Toolbox Meeting Record	49
	Training Register	50
	Testing of the Plan	51
	Transfer Station drop off layout	52
	CRC Risk Management Plan	54
	FOGO Plant Emergency Plan	59

1. Introduction

The *Protection of the Environment Operations Act 1997 (POEO Act)* specifies within Section 147 that there is a duty to report a pollution incident if there is a threat or material harm to the environment. A pollution incident is defined as:

“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 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.

If a pollution incident occurs in the course of an activity at the premises so that material harm to the environment (within the meaning of section 147) is caused or threatened, the person carrying out the activity must immediately implement the pollution incident management response that was developed to meet the requirements of the POEO Act.

1.1 Legislative requirements

This pollution incident response management plan (PIRMP) for the Resource Recovery Centre is a document set out to fulfil the requirements of Part 5.7A of the *Protection of the Environment Operations Act (POEO)* and the *Protection of the Environment Operations (General) Regulation 2009 (POEO(G) Regulation)*. 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).

1.2 Site description and operations

The Resource Recovery Centre is located on land at 44 and 58 Buckley's Road, Dunmore, 4 km south of Shellharbour (Refer to Figure 1). The entire site comprises of two weighbridges, Transfer Station, Office/Education Centre and FOGO Reprocessing Plant (EPL 12903).

This PIRMP only relates to EPL 12903 Resource Recovery Centre which is located over Lot 1 in deposited plan (DP) 110135 (6.04Ha). The site is owned and maintained by Shellharbour City Council.

In 2015 a Development Application was approved for the following:-

- Construction of a new Transfer Station and staff facilities;
- Minor upgrade and reconfiguration of the existing Revolve Centre;
- Upgrade of the Organics Facility to incorporate a new Food Organics Garden Organics (FOGO) Processing facility;
- Decommissioning and relocation of the existing leachate storage;
- Relocation of gas flaring infrastructure;
- Upgrade of internal road network and weighbridges;
- Provision of new civil landscaping and signage works;
- Upgrade and relocation of utilities and auxiliary facilities as required ;
- Demolition of an existing storage shed.

Since May 30th 2016 significant changes have been undertaken on the site, with works continuing until early November 2017. These changes have been to install the new Transfer Station and FOGO Processing Plant and associated works. These improvements will make it possible for Council to provide a more efficient service and to work to achieve the environmental outcome of diverting 75% of the waste received at the site from landfill.

The Dunmore Recycling and Waste Disposal Depot is subject to the conditions of Development Application (DA) numbers 55/1995 and 166/2009 as well as Environmental Protection Licence (EPL) 5984. Development Application 523/2014 and Environmental Protection Licences (EPL) 12903 also apply.

Since 2017, the key components of the operations on the EPL 12903 portion of the site include: -

Two Weighbridges

Construction of the new Transfer Station was completed on the 5th of November 2017. Operation commenced on the 4th of December 2017. All cars, utes, vans and trailers will enter the Dunmore Recycling & Waste Disposal Depot and immediately veer to the left, driving alongside the Revolve Shop prior to proceeding to weigh in at the weighbridge. Upon exiting the transfer station all vehicles will be weighed out and users will pay against the recorded tonnages.

Transfer Station and associated Staff Office/Education Centre

After vehicles are weighed in, they proceed to the Transfer Station. Dedicated bays within the Transfer Station are for the recovery of recyclable materials. These materials will also include materials collected in accordance with the Community Recycling Centre Program (CRC). The final bay will be for the disposal of material that is not recoverable or recyclable and must be landfilled. When vehicles then weigh out, payment will need to be made, being based on the weight of material that has been disposed of. Refer to Appendix 15.7 for Transfer Station Drop Off Bay Layout.



Dedicated bays for the recovery of recyclable materials.

Shellharbour CRC

Shellharbour CRC is located inside the new Transfer Station. The quantity of materials held on site (in particular oil based paint) will generally be above the threshold quantities under the NSW Work Health and Safety Regulation. As a result a separate “Risk Management Plan for Shellharbour CRC” must be prepared for the drop-off and storage area, covering both design and operations. Refer to Appendix 15.8

The CRC Emergency plan and procedures have been incorporated into this PIRMP and tested annually in conjunction with the testing of the PIRMP. Refer to Section 4 for the inventory of pollutants likely to be stored at the CRC. Refer to Section 8 for Primary Hazards and controls for CRCs.

The online “drop off waste” reporting system will be necessary for use as a register of hazardous materials stored within the area designated as the CRC.

All Safety Data Sheets (SDS’s), personal protection equipment (PPE), training records, a copy of the Pollution Incident Response Management Plan (PIRMP) and container labels pertaining to the CRC are stored in the “Safety Centre” next to the designated area. In addition, documents required for the CRC are located inside a waterproof box located at the front door of the Administration Building and inside the red manifest box at the front gated entrance.

The number of storage receptacles are controlled to limit the total volume of materials held on site at any one time to under 5 tonnes. This should minimise risks and remove the requirement for licence amendments.

Householders are required to separate water based and oil based paints by placing them in separate storage receptacles. If unsure of paint type they will be directed to place paint in the oil based paint receptacle.

The following safety equipment is provided within the CRC designated area:

- Safety shower and eyewash;
- Spill response kit;
- Fire extinguishers;
- Personal protective equipment (PPE);
- First aid equipment and supplies.

Procedures implemented regularly for:

- Testing the operation of the safety shower and eyewash;
- Replenishing the first aid equipment and supplies;
- Replenishing the PPE;
- Replenishing the spill response equipment.

FOGO Reprocessing Plant

To increase the effectiveness of the resource recovery activities on the site, a new food and garden organics processing facility has been built.

The following elements are included in the organics / green waste processing:

- A Tunnel Composting Food Organics & Garden Organics (FOGO) facility – This consists of four primary elements: a pre-treatment building, a loading corridor, composting tunnels, and a bio-filter. The overall footprint of the tunnel composting facility is approximately 2,000 square metres. Each enclosed tunnel is approximately 7m wide by 30m deep and 5m high.
- Lined, external, open-air pads - used to mature composted material after tunnel composting of FOGO. These windrows of approximately 4.5 metres in width at the base are oriented north south for optimal solar effectiveness.
- Storage area - for incoming self-haul green organics and shredding area for batch processing of material. While green organics will be collected within the transfer station, large depositors of green organics can arrange to deliver their material to the facility (i.e. landscape maintenance contractors).
- Finished Compost Storage area – This can accommodate up to 3 months storage of finished product. A number of bays are provided, to account for different product mixes and qualities.

The FOGO Plant is operated under contract by Re.Grow. Any emissions of gases, vapours and odours from the composting process will be mitigated through:

- Air being continuously extracted from the pre-treatment and tunnel composting buildings and processed through the site scrubber and bio-filter (controlled environment). The self-contained bio-filter is attached to the composting facility, has an operational footprint of approximately 200m² and its exhaust volume should not exceed 20,000m³/hour.
- Tunnel composting buildings
- Ensuring that all facility doors remain closed other than when required to be open for operational reasons.
- Evaluation of climatic conditions prior to the undertaking of any activities, with the potential to create fugitive emissions (in external environments)

Re.Grow operate under their own Environmental Management Plan with monitoring of point sources such as:-

- Bio-filter- maintenance, operation and routine replacement of medium
- Maturation area operations- aeration of pond, avoiding operation in adverse atmospheric conditions and covering of truck
- Stormwater Pond- maintenance and monitoring
- Final Product and reporting.

(Source: Re.Group Environmental Policy Ref PO-02) Re.Grow Site Manager is responsible for the recording of any corrective action in the site register.

Rainwater Tanks

Two new rainwater tanks are onsite to store runoff – one stores water from the new Transfer Station Facility and the other from the new Organics Facility. Their details are:

Rainwater Tank No. 1 (40kL capacity)

- Serves the Transfer Facility.
- Catchment area = 0.46ha.
- Design Average Year Withdrawal = 1.4 ML/ year.

Rainwater Tank No. 2 (50kL capacity)

- Serves the Organics Facility.
- Catchment area = 0.39ha.
- Design Average Year Withdrawal = 1.5 ML/ year.

1.3 Surrounding land use

The Site Management Plan outlines the surrounding land use of the site and it is evident that the surrounding land is zoned for a variety of uses. Based on the *Shellharbour Local Environmental Plan 2000* and *Rural Local Environmental Plan 2004*, neighbouring land is zoned as: 1(a) 'Rural' 'A', 5(a) 'Special uses', 5(b) 'Special uses (Railways)', 7(a) 'Environmental Protection (wetlands)' or 7(f2) 'Environmental Protection (foreshore)'.

The land use surrounding the site is summarised below.

Revolve Centre – (Tip Shop) Is located at the main entrance, on the northern part of the site. The centre is operated by Resource Recovery Australia, under a contract arrangement with Shellharbour City Council. The Revolve Centre is not a part of EPL 12903 or 5984. The Centre accepts post-consumer recyclables and at the discretion of the operator, recovers goods and materials for re-sale. Goods include a wide variety of household items such as clothing, furniture, appliances, construction material and tools.

Shellharbour City Council in partnership with Resource Recovery Australia is running a trial program called the "Tinkerage". The "Tinkerage" operates within the Revolve Centre and is a fresh initiative for the Shellharbour Community, allowing people to attend art and equipment workshops. The Tinkerage is just the place to help in this process. You can buy something from the Revolve Shop that needs a little loving care, drop by and learn how to upcycle or fix it.

The Tinkerage is open every Thursday and Friday from 10am to 3pm for tinkerers to drop by and use the space under the guidance and supervision of the workshop facilitator. Various workshops are undertaken on weekends during opening hours.

West of Site:-

Dunmore Waste Depot- adjoins the east boundary. This area is utilised as a landfill for putrescible waste under licence EPA 5984- "Dunmore Recycling and Waste Disposal Depot". The site is owned and operated by Shellharbour City Council. To the South West is an environmental protection area including wetlands part of a vegetated corridor that fronts Rocklow Creek.

To the immediate west, on the western side of the Princess Highway is:

- Dunmore Lakes Sand Extraction project operated by Dunmore Sand and Soil.
- South coast train line and State Highway No. 1; and
- Blue Metal Industries quarry within 2 km of the site.

North of Site:

- Dunmore village with 20 houses along Shellharbour Road, which are approximately 200 metres from site. A rural fire brigade is also located in the village;
- Endeavour Energy Shellharbour Depot to the north east;
- Shellharbour links golf course 500 metres to the north of site; and
- Residential development to the north and northeast.

South of site:

- SEPP 14 Wetlands on the south eastern boundary fronting Rocklow Creek; and
- Further south is the Minnamurra Waste and Recycling Centre on Riverside Drive, which includes disposal of sorted metals, garden organics, general recyclable and CRC for Kiama Council.

East of site:

- Commercial industry operating “Dunmore Resources and Recycling” located at 57 Buckley’s Road Dunmore. It is an existing sand extraction quarry. Currently reprocessing bricks and concrete and blending soils for sale.
- Further east is the Killalea State Park, which includes a mix of modified and natural landscape fronting the coastline.
- Further east, is the Boral Dunmore Quarry and Sand and Soil operations.

2. Description and Likelihood of Hazards

2.1 Description of the licensed activity and hazards to human health and environment

Scheduled activities include:

- Composting > 5000-50000 tonnes capacity to receive organics
- Resource Recovery- Recovery of general waste, and
- Waste Storage- Any other types of waste stored.

From these scheduled activities, the hazards to human health and the environment have been identified. These include:

- water pollution;
- air pollution;
- pollution as a result of an unexpected material disposed on site.

Based on these activities, the severity of any pollution incident should be ranked based on the extent to which a pollution hazard poses to humans and the environment (Refer to the below Table).

Description of the pollution event	Severity score
Pollution could affect only those in the immediate vicinity	1
Pollution could affect others within the site	2
Pollution could affect surrounding neighbours	3

The below Table identifies a list of foreseeable hazards that could occur on this site as a result of regular operating procedures.

Type of Pollution	Hazard	Likelihood of hazard occurring	Consequence	Risk Score
Soil and Water pollution	Ground water pollution by migrating leachate from composting	Rare	Moderate	2
	High sediment load into receiving waters	Rare	Minor	5
	Generation of excessive contaminated water	Unlikely	Minor	4
	Overflow of sediment dam due to flooding	Rare	Moderate	3
	Runoff of surface water	Possible	Minor	3
	Soil and water pollution as a result of refuelling plant and equipment on site	Unlikely	Moderate	3
	Ignition of accumulated landfill gas	Rare	Major	2
Air Pollution	Excessive impurities, pathogens and/ or toxins admitted to the air	Rare	Minor	5
	Discovery of orphan waste on site	Possible	Insignificant	6
	Uncontained asbestos in waste stream	Possible	Major	1

Type of Pollution	Hazard	Likelihood of hazard occurring	Consequence	Risk Score
CRC materials collected hazards due to: CF: Container Failure or CD: Container Dropped or VC: Vehicle Collision	CF: Acids & Alkalis	Rare	Minor	5
	CD: Acids & Alkalis	Rare	Minor	5
	VC: Acids & Alkalis	Rare	Minor	5
	CF: Corrosives e.g. lead acid batteries	Rare	Minor	5
	CD: Corrosives e.g. lead acid batteries	Rare	Minor	5
	VC: Corrosives e.g. lead acid batteries	Rare	Minor	5
	CF: Used oils including paints	Rare	Minor	5
	CD: Used oils including paints	Rare	Minor	5
	VC: Used oils including paints	Rare	Minor	5
	CF: Paint Water Based	Rare	Insignificant	6
	CD: Paint Water Based	Rare	Insignificant	6
	VC: Paint Water Based	Rare	Insignificant	6
	CF: Smoke detectors- Low level radioactive substances	Rare	Insignificant	6
	CD: Smoke detectors- Low level radioactive substances	Rare	Insignificant	6
	VC: Smoke detectors- Low level radioactive substances	Rare	Insignificant	6
	CF: Toxic-Fluorescent tubes and light fittings	Rare	Insignificant	6
	CD: Toxic-Fluorescent tubes and light fittings	Rare	Insignificant	6
	VC: Toxic-Fluorescent tubes and light fittings	Rare	Insignificant	6

Refer to the below Risk Management Table to score the risk associated with any particular hazard.

Likelihood	Consequences				
	Catastrophic Death Permanent disabling injury or extensive permanent environmental damage	Major Extensive permanent injury or extensive temporary or minor permanent environmental damage	Moderate Significant non- permanent injury. Overnight hospitalisation. Temporary environmental damage consultants required for assessment and cleanup	Minor Medical help needed. Treatment by medical professional. Environmental cleanup done in house	Insignificant Dealt with in house
Almost certain to occur in most circumstances	1	1	1	2	2
Likely to occur frequently	1	1	2	2	3
Possible and likely to occur at some time	1	1	2	3	4
Unlikely to occur but could happen	1	2	3	4	5
May occur but only in rare and exceptional circumstances	2	2	3	5	6

3. Preventative and Incident Management

As a condition of Environmental Protection Licence 12903 the Resource Recovery Centre is required to have in place controls that manage water and air pollution that may occur on site. These have been detailed in the Site Management Plan and are summarised below.

The pollution events that are most likely to occur are those associated with spills on site and extraordinary weather events that could cause overflow into surrounding areas. These should be contained immediately by staff and evaluated by the Site Supervisor to determine the level of action necessary.

Groundwater and landfill gas pollution events are not likely to be a discrete pollution event and cannot be mitigated with one off control measures. Environmental monitoring is carried out on the adjoining landfill site and results that exceed guidelines over a period of two or more rounds will need to be investigated and remedial options considered as outlined in the Site Management Plan.

Another pollution event that may occur is a fire that may produce offensive or hazardous fumes. A fire inside the Transfer Station or FOGO Plan is controlled by staff using fire extinguishers (powder & wet), sprinklers, fire hose reels attached to hydrant pressure or water trucks stored on site until emergency services arrive. Where smoke or fumes are of unknown nature, the fire will be controlled by NSW Fire and Rescue.

3.1 Water pollution management

3.1.1 Collection system

The FOGO Plant has an area for the maturation of processed compost. This windrow area is lined to prevent any surface water egress from site. The purpose of this barrier system is to provide a physical containment to prevent a pollution event of the groundwater or receiving water bodies. Water captured from this area is diverted to a 20mm first flush system directed to a 1.5ML leachate storage pond. This enables full capture of small rain events, with some discharge via a secondary sedimentation pond in wet weather.

This approach enables stormwater to be reused, rather than disposed. The discharge quality will be similar to other surface stormwater from site, given capture of first flush of the maturation pad area. This process allows potentially nutrient and sediment rich waters to be held in detention and treated prior to any discharge from site. This protects the local environment while enabling the various environmental benefits of regional organics recycling.

3.1.2 Surface water and sediment

Sediment fences/silt bags are to be used as necessary. Sediment tracked onto roads will be swept as required. Where necessary, a street sweeper will be engaged on a regular basis. Spill response kits are to be provided and easily accessible at both the Transfer Station and FOGO Plant.

On the site, the surface water is classified into three categories:

- Clean stormwater – runoff from areas that have not been disturbed and considered clean; and
- Dirty stormwater – runoff from disturbed areas of the site with the potential to generate sediment including any water that falls within the compost windrow area.
- Leachate- first flush (20mm) of water that has come into contact with processed compost.

The objectives of the surface water controls are to:

- Prevent unacceptable sediment loads in receiving waters;
- Prevent any surface water mixing with waste; and
- Prevent erosion of landscaped areas.

Current practice to control surface water and sediment includes stormwater diversion drains and one sedimentation pond, and are managed in the following ways:

1. Dirty stormwater is kept within the site and reused in the FOGO processing plant;
2. Clean stormwater coming from adjoining land is intercepted by a well-vegetated drainage channel and directed into Rocklow Creek. Other clean surface water is diverted away from activities and towards the table drain to the east of site and directly to the culvert under the road and discharges offsite. This drainage channel is well vegetated;
3. Storm water from the roof catchment is collected and directed to the rain water tanks with a combined annual design capacity of 2.9ML.
4. High speed floating aerator is installed into the stormwater storage pond to prevent anaerobic conditions and ensure rapid degradation of the fine organic solids. This will also increase the rate of evaporation, which will help in maintaining working levels within the pond.

5. The active compost maturation area will be minimised during operations through the use of temporary bunds to separate clean stormwater that has not come in contact with compost.
6. First flush water captured from the compost maturation area goes to the leachate treatment pond and is reused in the composting process.

Erosion control methods to minimise erosion and sedimentation are used for all works where there is the potential for erosion to occur. The SMP specifies the following measures used on site:

- reducing the area of exposed soil;
- diverting clean water away from disturbed area;
- reducing flow concentration by the construction of flow spreading bunds;
- reducing the length and steepness of slopes;
- rehabilitating disturbed areas in a timely manner;
- applying sedimentary control measures to intercept and retain sediment on site; (e.g. sediment fences, hay bales, existing table drains around perimeter and sedimentation ponds); and
- inspection of maintenance and cleaning program for control structures to maintain capacity and integrity.

3.1.3 Leachate, groundwater and surface monitoring

A regular ground and surface water-monitoring program is required. Monitoring conditions are currently being negotiated with the EPA to ascertain appropriate conditions pertaining to the changed environment. These conditions will be specified in Chapter 2, Section P1 "Location of monitoring/discharge points and areas", Chapter 3, Section L2 "Concentration limits" and section Chapter 5, Section M1 "Monitoring records" of the licence.

3.1.4 Water pollution assessment program

If pollution is encountered during any monitoring event, an assessment and subsequent contingency plan has been detailed in the Site Management Plan and this document. The objective is to have procedures in place in the event that groundwater or surface water pollution is identified.

3.2 Air pollution management

Landfill gas is a by-product generated in the breakdown of waste in a landfill. The Transfer Station will be used by self-haul visitors. Any putrescible waste will be transported daily to the Dunmore Waste Facility operating on licence EPL 5984.

The Transfer Station is well ventilated with vents in all walls enabling the recirculation of air by natural means.

The FOGO Plant operates under negative air pressure, which diverts all internal air to scrubbers for cleansing. Air emissions from the processing tunnels are directed to the bio-filter.

The premises will be maintained in a condition that minimises or prevents the emission of dust from the premises. All operations and activities occurring at the premises will be carried out in a manner that will minimise the emission of dust from the premises. Trucks entering and leaving the premises that are carrying loads will be covered at all times, except during loading and unloading

Dust suppression within the Transfer Station will be provided as required.

3.3 Management of material to landfill

The licence specifies the material that is scheduled to be received and the activity that is allowed for each waste stream. The Site Management Plan details how this material is to be processed, monitored and regulated.

Preventative measures that are in place to prevent a pollution incident as a result of unscheduled material being dumped on site are:

- signage to indicate the types of waste allowed and those prohibited;
- entry via the weighbridge;
- customer declaration of waste;
- waste is screened at the weighbridge and CCTV is available to visually inspect loads;
- screening, separation and checking waste at transfer station;
- recording of all information and archived for at least four years;
- prohibited waste to be immediately notified to the Transfer Station Operator or FOGO Plant operator; and
- regular training of staff to supervise tipping and screening of waste.

3.4 Early warnings

In the event of a pollution incident those at the scene are to immediately contact the Site Supervisor by mobile phone or UHF radio Channel 68.

Arrival of any specific loads going to the FOGO Processing plant will be immediately advised to the plant operator of the weighbridge by using UHF Channel 66.

The Site Supervisor is to continually assess the situation and inform the staff at the weighbridge of instructions for staff and public.

The primary means of warning will be across UHF radio on Channel 68 (Transfer Station) and Channel 66 (FOGO Plant) and mobile telephone.

Where evacuation procedures need to be initialised, the siren is to be switched on. The weighbridge operator will make the following announcement twice both on channel 68 and channel 66:

“Emergency, Emergency- The evacuation procedure for the Resource Recovery Centre has been activated. Please proceed to (either assembly point 1 carpark in front of the Administration Building) or (assembly point 2 southern end of the property).”

Ongoing information will be given from the Site Supervisor over the radio and also via the weighbridge. The weighbridge is the direct point of contact with the public and will be briefed on the status of the situation and the response to public and other staff members.

After the weighbridge operator completes the announcement, they are to lift the boom gate, grab the portable T-Way radio and front entrance gate key, remove temporary bollards at the rear of the weighbridge building and walk along the incoming road directing traffic to turn around and remove their car from the site to allow emergency vehicles to enter.

The weighbridge operator shall walk along the incoming driveway towards the turning circle near the Revolve Centre and close the steel boom gate, making sure all vehicles have been removed from the drive way and wait for emergency vehicles to arrive. Open the secondary gates and await their arrival. You may need to flag them towards the correct entrance. This will enable the Revolve Centre and the landfill site to operate

under normal conditions. Where a pollution event has the potential to have impact offsite, communication with surrounding neighbours will be undertaken. The decision to notify adjoining owners will be made by the Site Supervisor.

Employees working inside the Transfer Station and at the “Green Waste” drop off area must ensure that all customers stop what they are doing and follow employees to the appointed assembly site and await instructions.

3.5 Updates

Updates to staff and the surrounding community will be required for all pollution incidents. Where monitoring values exceed guidelines, the monitoring data will be presented on the website www.shellharbourwaste.com.au

Monitoring data is required to be presented to the EPA in the form of an annual return as set out in the Environmental Protection Licence. Additional updates to the EPA will be directly requested and provided by Waste Planning at Shellharbour City Council.

POEO Act 1997 requires that all monitoring data is to be published within 14 days of obtaining the data. This is published on the Dunmore Recycling and Waste Disposal Depot section of Council’s website www.shellharbourwaste.com.au

In the event that a pollution incident occurs on site requiring immediate attention in the form of clean-up and containment and or evacuation, the early response by the Site Supervisor is to assess the risk associated with the incident and initiate the incident response.

When the initial pollution has been stabilised by reducing the immediate threat to human health and the environment updates are required to be made until the pollution incident has been rectified.

Onsite updates are made by the Site Supervisor and will include:

- communication over UHF Channel 68 to workers on the Transfer Station site;
- communication over UHF Channel 66 to workers on the FOGO Plant site;
- briefing the weighbridge operator on the status of the incident and instructing them on the response to calls and queries from the public;
- signage upon entry to the site of the status closed or open;
- regular phone updates to the Team Leader Waste Planning and Group Manager-Asset Strategy; and
- regular updates by phone to on site contractors signed in who do not have access to UHF radio.

The information that is required to be conveyed in these updates will include:

- the status of the area or site. Is it open or restricted?;
- the area where the incident has occurred;
- the hazard that is present;
- what is being done to rectify this incident;
- when the next update is due; and any additional safety requirements required by staff working near or around the area

4. Inventory of Pollutants

The main potential pollutants associated with the CRC in the Transfer Station include:

Material	ADG Class	GHS classification	Placard quantity	Manifest quantity
Batteries – household				
Lithium ion	9 Miscellaneous	None	No limit	No limit
Other types	None	None	No limit	No limit
Batteries – lead acid ¹	8 Corrosive: packing group II	Skin corrosion: category 1A	250kg or L	2,500kg or L
Fire extinguishers	2.2 Compressed gases	Compressed gas	1,000L	10,000L
Fluorescent tubes and light fittings ²	6.1 Toxic: packing group II	Acute toxicity – Category 1	250kg	2,500kg
Gas cylinders LPG or propane	2.1 Flammable gas	Flammable gases category 1	200L	5,000L
Oil – heating	3 Flammable liquid: packing group III	Flammable liquid: category 3	1,000	10,000L
Oil – motor and cooking	None	None	No limit	No limit
Paint – water based	None	None	No limit	No limit
Paint – oil based	3 Flammable liquid:	Flammable liquid:		
	Packing group II	Category 2	250L	2,500L
	Packing group III	Category 3	1,000	10,000L

(Safety data sheets for above pollutants are provided onsite in the staff “Safety Centre”)

Some of the requirements depend on the quantity of hazardous chemicals stored. If more than placard quantities of hazardous chemicals are stored, outer warning placarding and placarding of the particular hazardous chemicals is required. If more than manifest quantities are stored, provision of a manifest and site plan, and notifying the regulator of this situation is required.

Additional goods that are stored on site include:

- domestic quantities of cleaning products;
- Self-hauled green garden waste;
- Textiles
- Smoke alarms
- Soft plastics
- E-Waste
- Polystyrene
- Food and Organic waste (FOGO)
- Metals including white goods, copper, brass, aluminium
- Re-use items – Revolve Shop
- Small clean timber items
- Tyres
- X-Rays

For all chemicals stored on site, a safety data sheet (SDS) is stored in the “Safety Centre” and Administration office.

In addition, a dangerous goods register and hazard assessment is provided in line with the Shellharbour City Council operational procedures.

Refer to site map (Figure 14.7) and Transfer station drop off layout (Appendix 15.7).

The main potential pollutants associated with the FOGO Reprocessing Plant include:-

Material	Quantity	Use/storage
Sulphuric Acid 98%	12,000 Litres	Air scrubbers-stored in purpose built tanks within a concrete bunded area
Diesel	5,000 Litres	Generator- stored in purpose built diesel tank
Grease & Oils	Various	Minor quantities for Mobile plant

(Safety data sheets for above pollutants are provided onsite in the staff “Safety Centre”)

5. Safety Equipment

5.1 Personal Protective Equipment

A site risk assessment has been prepared by Shellharbour City Council (risk assessment 10660) and Re.Grow. Personal protective equipment (PPE) has been identified in this document and the location of PPE stores on site include the Transfer Station “Safety Centre” and FOGO reprocessing plant.

Staff members are issued with PPE that includes leather gloves, hi-vis clothing, protective eyewear and steel toe footwear. Additional safety equipment for designated tasks is located in the storage areas above.

These include and are not restricted to:

- long and short PVC chemical resistant gloves;
- leather gloves;
- Ty-vek coveralls ;
- safety goggles;
- gumboots;
- hearing protection (ear defenders); and
- P2 class face masks.
- Respiratory protection

Other safety equipment is provided in the Transfer Station adjoining the CRC:

- Safety shower and eyewash
- Spill response kit
- Fire extinguishers
- First aid equipment and supplies
- Patient Treatment Bed

Spill response equipment include adequate quantities of suitable absorbent materials. This includes a sufficient quantity of resealable waste recovery containers compatible with the substances being kept, marked for emergency use only, and shovels, brooms and scrubbing brushes. Spill response equipment must be located at both the drop-off area and the storage area.

Dry chemical powder type fire extinguishers are appropriate for all types of CRC materials except for cooking oil, for which a wet chemical type is provided.

The location of the above equipment is provided in Figure 14.7 “Site Map and Evacuation Muster Point”.

6. Contact Details

The following Table presents the list of contacts in the case of a pollution incident or emergency. The Site Supervisor, Landfill Operations Manager and Team Leader Waste Planning must be contacted in the case of any pollution incident or emergency as soon as practical and prior to the close of business depending on the time of event. Section 10 of this plan outlines in detail the actions immediately to be taken in the event of an incident.

List of Contacts

Name	Position	Role	Organisation	Contact
Kerry Penfold	Site Supervisor	Activating the plan and managing on site response.	Shellharbour City Council	0421 044 158
Don Cesco	Landfill Operations Manager	Managing the response	Shellharbour City Council	(02) 4237 5976 0447 739 884
Courtney Williams	Team Leader – Waste Planning	Managing the response and contacting all authorities	Shellharbour City Council	(02) 4221 6117 or 0427 931 500
NSW Fire and Rescue	-	Emergency Response	-	000 or 112 for mobile phones (02) 4224 2000
Police	-	Emergency Response	-	000 or 112 for mobile phones (02) 4295 2699
Ambulance	-	Emergency Response	-	000 or 112 for mobile phones 131 233
EPA Hotline	Site Supervisor	Environmental reporting	NSW EPA	131 555 or (02) 9995 5555
SafeWork NSW	To be contacted if this is a notifiable incident	Incident reporting	SafeWork NSW	13 10 50 or contact@safework.nsw.gov.au
Environmental Earth Sciences	Matthew Rendell	Environmental Advice	Environmental Earth Sciences	(02) 9922 1777
Public Health Unit	Public Health Officer	Surveillance and public health response	NSW Health (from Wollongong Hospital)	(02) 4221 6700 (Business hours) (02) 4222 5000 (After hours) ask for Public Health Officer on call

The following Table specifies the order these contacts are to be called and who is responsible to contact them as required.

Contact Order

Name/ Organisation	Role	Person responsible to call	24 Hr Contact
Emergency Services: Fire and Rescue NSW, Ambulance, Police	First responders. They are responsible for controlling and containing incidents. Can be used to contact surrounding neighbours	Site Supervisor	000 or 112 for mobile phones
Waste Planning Shellharbour City Council	Contact appropriate regulatory authorities, manage the response	Site Supervisor	(02) 4221 6117, (02) 4221 6141 (02) 4221 6223, or 0427 931 500
Environment Protection Authority	Regulatory authority under the POEO act for this licensed site	Depot Site Supervisor to report incident as soon as possible and provide Waste Planning the Incident Number.	131 555 Select 1 or (02) 9995 5555
Ministry of Health via Public Health Unit	In the event this could cause impact to the community and workers the Public health unit provides advice on the response	Waste Planning	(02) 4221 6700 (Business hours) (02) 4222 5000 (After hours) ask for Public Health Officer on call
SafeWork NSW	To be contacted if this is a notifiable incident	Waste Planning	13 10 50 contact@safework.nsw.gov.au
Environmental Earth Sciences	Environmental advice on possible monitoring places for surface water, ground water and storm water catchment information	Waste Planning	(02) 9922 1777

7. Communication

Communication between Dunmore Recycling and Waste Disposal Depot and the community will be through updates on the website located at: www.shellharbourwaste.com.au. This website displays quarterly environmental monitoring and the Pollution Incident Response Management Plans under the "e-library" tab.

Community concerns can also be made in the "contact us" email feedback section. More urgent queries can be made by directly calling Waste Planning at Shellharbour City Council on (02) 4221 6111.

When a pollution event occurs, the severity of the event will be established by the Waste Depot Site Supervisor and reported to Waste Planning as licensee of the site.

The following procedures for communications are as follows:

- **Severity 3 event** – neighbours, surrounding businesses and staff notified;
- **Severity 2 event** - internal staff notified as per protocols;
- **Severity 1 event** - internal staff notified as per protocols and the area cordoned off.

The proximity of neighbours is outlined in Figure 14.1 “Site Boundaries” and described in Section **Error! Reference source not found..**

Based on the nature of pollutants at this site, it is unforeseeable that a pollution event on this site could occur that would pose an immediate threat to the surrounding neighbours. In the event that one does occur, the following will be undertaken to inform the identified neighbours:

- NSW Fire and Rescue will be utilised to doorknock residents of Dunmore Village;
- in the event that NSW Fire and Rescue cannot inform the local residents, they will be door knocked by the Waste Planning, Waste Operations or a Council representative and informed of the incident; and
- in the event a resident is not home, a concise note with detailed information will be left on the door. This will include the nature of the hazard to the resident, any action the neighbour is to take and the contact number to call for regular updates.

The below Table presents the businesses operating near Dunmore Recycling and Waste Disposal Depot- Resource Recovery Centre. These business will be contacted in the event a pollution 3 event.

Business Name	Location	Phone Number
Revolve Shop: Resource Recovery Australia Attention Matthew Curtis	North of site	(02) 4237 5193 0407 898 246
Endeavour Energy Shellharbour Works Depot 7 Buckleys Road Dunmore	North East of Site	Emergency 131 003
Dunmore Resources and Recycling Glenn Steggles 57 Buckleys Road Dunmore	East of site	(02) 4237 5033
The Links Shell Cove (Golf Course) Corner of Southern Cross Boulevard & Shellharbour Rd Shell Cove	500m North East of site	(02) 4237 5955 6am-6pm
Minnamurra Waste & Recycling Centre. Kiama Council,446 Riverside Drive Minnamurra	500m to the south of the site	(02) 4237 5148 8am-4pm

8. Minimising harm to persons on the premises

8.1 Persons likely to be onsite

Persons likely to be on site are:

- employees of Resource Recovery Centre;
- employees of Dunmore Waste Facility;
- employees of Re.Grow
- employees of Shellharbour City Council Works Depot or Administration office;
- contractors e.g. Resource Recovery Australia, Flagstaff, Environmental Earth Sciences.
- subcontractors working on site e.g., electricians and plumbers; and
- general public.

The site is open to the public during the hours of:

- 7.30 am - 4.00 pm on weekdays;
- 8.00 am - 4.00 pm on weekends and public holidays; and
- Closed Christmas Day and Good Friday with the exemption of kerbside collection vehicles.

Staff will generally be situated around the site within 30 minutes of the opening and closing times. During this time the weighbridge records all vehicles/visitors in and out of the facility. Visitors are required to provide a mobile contact number whilst onsite and have a CB radio turned to Channel 68.

Subcontractors are required to be inducted onto the site by the Site Supervisor. They are required to sign-in and out at the weighbridge. As part of their induction the Site Supervisor, Re.Grow Site Supervisor and/or Supervisor of Resource Recovery Australia are required to sight their safe work method statement (SWMS) for the work they are conducting.

8.2 Measures used to minimise harm to persons on the premises

Minimising harm to persons on the premises is conducted through:

- training;
- signage;
- personal protective equipment;
- administrative procedures such as data management and reporting; and
- engineering controls.

8.2.1 Training

Staff training is an important measure used to minimise harm to persons on the premises. Practices and procedures can be reinforced to those working on site and updates communicated at toolbox meetings. Details of staff training are specified in Section 11 of this plan.

8.2.2 Signage

Personal safety and visual warning signs are used to inform people including non-English speaking people who visit the site. These also include pedestrian marking to indicate safe walking areas or loading zones within the site.

8.2.3 Personal Protective Equipment

Personal protective equipment has been detailed in Section 5.1 of this plan. Shellharbour City Council requires a risk assessment be undertaken for all tasks conducted. This assessment specified the required PPE for the job. Risk assessment 10660 has been undertaken on this site and the report is located in the office of the Site Supervisor.

8.2.4 Administrative Procedures

Administrative procedures in place to minimise harm to persons onsite are systems and instructions that are followed by all staff at Dunmore Recycling and Waste Disposal Depot.

These sites include

- Dunmore Waste Facility,
- Resource Recovery Centre and the
- FOGO Plant (Re.Grow)

A copy of these systems pertaining to each site are located in the various Site Supervisor's offices.

These are detailed in the Site Management Plan, Operations and Management Handbook CRC, FOGO Plant Site Management Plan and employee intranet requirements of Shellharbour City Council. Procedures most relevant to this site include:

- Inductions for all staff members;
- Risk assessments undertaken for work on site;
- Daily reports completed by the Site Supervisor;
- Measurement and recording of wastes received;
- Replacement of signage across the site;
- Dangerous goods register; and
- Asbestos Policy and Procedures.
- Operations and Management Handbook-2nd Edition Community Recycling Centres.

These procedures are in place to inform staff of the hazards on site and the different mechanisms to control materials entering the site and those operating on the site.

8.2.5 Engineering solutions

Engineered solutions to isolate and control the hazards that are in place on site to mitigate harm to persons on site include:

- Drainage lines designed to divert surface water;
- Sedimentation ponds to manage surface water sediment loads and retain sediment on site;
- Safety showers – located in the weighbridge, Transfer Station adjacent to the community recycling centre drop off area and the FOGO Plant;
- Isolated areas for retrieved gas bottles,
- Fire hose reels located through the Transfer Station;
- Eight CCTV locations through the Transfer Station; and
- Fire extinguishers (powder and wet) located in CRC drop off location and storage areas.
- One stop Safety Centre located adjacent to the CRC drop off location and storage area.

8.2.6 Evacuation Procedure

An evacuation procedure is in place in the event that the Site Supervisor needs to muster all staff onsite to control an incident that has the potential to cause harm to human health on site. The Site Supervisor and/or the Waste Operations Manager are to assess the extent of the incident and initiate the procedure where there is a risk to persons on site.

NOTE: 000 is the first contact for an emergency as the primary responders to an incident that poses an immediate threat to human health. Section 10 details the procedure for action during a pollution incident.

Duties

The primary role of the duty wardens is to ensure, as far as practicable, the safety of the occupants and the orderly evacuation from the danger zone to the muster point.

Chief Warden

This position assumes control of the occupants of the entire site from the time that an incident occurs until the arrival of relevant emergency services. The Chief Warden on site is to be the Site Supervisor or person appointed to this position in their absence.

Warden

Appointed to a particular work area to facilitate the evacuation and communicate instructions from the Chief Warden. Wardens are required to know who is working in their area and the safe passage to the emergency muster point. Wardens will be the most senior staff member for a particular work group and will be addressed during the toolbox talk each morning.

Evacuation Procedure

When the evacuation procedure has been initiated:

- The Site Supervisor instructs the weighbridge operator to switch on the siren. Alternatively, the siren is activated at either end of the Transfer Station. The siren is to be left on until the risk has been mitigated and switched off by the Site Supervisor.
- Over UHF Channel 68 (Resource Recovery Centre) and UHF Channel 66 (FOGO Reprocessing Plant) the weighbridge operator is announce twice on each channel: **“Emergency, Emergency- The evacuation procedure for the Resource Recovery Centre has been activated. Please proceed to (either assembly point 1 carpark in front of the Administration Building) or (assembly point 2 southern end of the property)”**.
- After the weighbridge operator completes the announcement, they are to lift the boom gate, grab a portable T-Way radio and front entrance gate key, remove temporary bollards at the rear of the weighbridge building and walk along the incoming road directing traffic to turn around and remove their vehicle from the site to allow emergency vehicles to enter.
- The weighbridge operator shall walk along the incoming driveway towards the turning circle near the Revolve Centre and close the steel boom gate, making sure all vehicles have been removed from the drive way and wait for emergency vehicles to arrive. Open the secondary gates and await their arrival. You may need to flag them towards the correct entrance. This will enable the Revolve Centre and the landfill site to operate under normal conditions.

- If members of the public, contractors or subcontractors are present, the staff are to communicate to any public that an evacuation procedure has been initiated and they will be escorted to the emergency assembly point;
- Staff are to ensure they have safely shutdown and isolated their machinery and direct staff to the emergency muster point;
- Staff are to look around their work area and ensure everyone has left their area;
- Primary muster point is located in the Administration Office/Education Centre Staff Car Park. If unable to safely navigate to the primary muster point a secondary muster point is located at the southern end of the property boundary near the rear sedimentation pond. Refer to Figure 14.7 Site Map and Evacuation Muster Point. The Site Supervisor will select the appropriate Assembly point.
- At the assembly point the Site Supervisor is to account for all staff members and signed in visitors and await further instructions from emergency services; and
- Once emergency response staff have been called, the Site Supervisor is to assess the situation and if the risk has been mitigated, determine if it is okay to return to work or to direct staff to leave the premises.
- Where a pollution event has the potential to have impact offsite, communication with surround neighbours will be undertaken. The decision to notify adjoining owners will be made by the Site Supervisor.

8.2.7 Muster Points and Alarms

The primary assembly point for this site is located at the car park located in the front of the Administration Office. In the event that this site is unsafe, the Site Supervisor will ensure the secondary assembly point is announced. This decision is based on site conditions.

An audible alarm is located at the Weighbridge and Transfer Station. This can be heard across the site. The control switch for the alarm is located in the dual weighbridge. The weighbridge operator is to ensure no unauthorised vehicles enter the site and provide the Site Supervisor with a report of all vehicles on site.

8.2.8 Contact details for available consultants

In the event that a consultant is required at short notice for a pollution incident the following table lists contact details for available consultants.

If a hazardous waste contractor is required, one will be appointed by a Technical Officer from Waste Planning. Waste disposal and spill containment services operate 24 hours.

These numbers do not replace the need to report to the appropriate regulatory authority or call emergency services if there is immediate threat to persons and the environment.

Contact details for available consultants.

Consultant	Role	Contact Number
Environmental Earth Sciences	Environmental Consulting and monitoring of ground water bores, surface water, leachate, gas and dust monitoring	(02) 9922 1777
Public Health Unit	Surveillance and public health response. Medical and toxicological advice.	4221 6700 (Business hours) 4222 5000 (After hours) ask for Public Health Officer on call
Chinnock Plumbing Services Ivan Chinnock	Plumber for internal services including potable water, onsite sewage system and leachate	0408 423 725, 4296 1897
Sydney Water	Plumbing to the street junction	Report a fault 132090 Questions 132092 Connections 1300082746 (Mon-Fri)
Endeavour Energy	Power outage/restore power to site	Emergency 131003 Enquiries 133718/131081 Dial before you dig 1100
Graham Jurd Electrical Contractor Graham Jurd -	Power installation and repairs inside the site.	0418 603 259, 4256 6535
LGI Landfill Gas Industries Operations Manager 1 / 7 Gardens Dr, Willawong QLD 4110	Landfill gas installation and monthly monitors of flare and vertical and horizontal gas lines	Tel: +61 7 3211 2225 Mob: +61 407 856 246 mark.harper@lfgas.com.au http://lfgas.com.au

9. Attachments

Maps, documents and figures are located at the end of this document. Brief description is outlined below.

Figures

- 14.1 Site Boundaries
- 14.2 Historical Filling on Site
- 14.3 Groundwater Contours
- 14.4 Re.Grow Site Lay Out
- 14.5 Pollutants Onsite
- 14.6 Drainage and Surface Water Flow Direction
- 14.7 Site Map and Evacuation Muster Points

Appendix

- 15.1 Incident Report Form
- 15.2 Incident Investigation Report
- 15.3 SafeWork NSW Incident Notification Fact Sheet
- 15.4 Toolbox Meeting Record
- 15.5 Training Register
- 15.6 Testing of the Plan
- 15.7 Transfer Station Drop Off Layout
- 15.8 CRC Risk Management Plan

10. Actions during and after incident or pollution event

10.1 Actions during and after incident or pollution incident

The following information details the action to be taken during and after a pollution incident. The primary person could be either the Site Supervisor and/or a Technical Waste Officer, emergency services or other authorised officer from the EPA or Department of Health. Following this, additional information has been included based on site specific hazards.

In the event of a pollution incident:

- the Site Supervisor/primary person at the pollution incident, where safe to do so, will initiate a response to ensure any immediate threat to human health and environment is reduced. This will include, and not be limited to, removing surrounding people from the danger area;
- the primary person is to ensure all members of the public in the immediate area removed from any potential danger and asked to proceed to the Muster point;
- the primary person will contact the Site Supervisor to initiate the response. The Site Supervisor is responsible for managing the response on site:
- the Site Supervisor is responsible for documenting the incident. An Incident Reporting Form (Appendix 15.1) is required to be complete for each incident; and
- the nature of the incident should be established to whether it is a chemical spill, fire or other;
- the Site Supervisor will call the emergency response authorities (Fire and Rescue, Ambulance, Police) if required;
- the primary person at the site of the incident, where safe to do so, will initiate spill containment measures appropriate to the pollutant at the instruction of the Site Supervisor. Information on the chemical/pollutant will be found the SDS located at the "Safety Centre", red manifest box and/or Site Office and the risk assessment for the appropriate task:
- In the event that it is unsafe to do so, the staff member will be directed to move a safe distance away from the area and prevent others from entering the area until the Site Supervisor advises otherwise;
- The Site Supervisor will call the Waste Planning Team Leader and assess the risk based on the pollutant and the severity score;
- The Waste Planning Team Leader will contact the Group Manager Asset Strategy. If the Group Manager Asset Strategy cannot be contacted, the Team Leader will directly call the Director of Amenity and Assets;
- The Waste Planning Team Leader is required to contact the appropriate authorities, dependant on the nature of the incident, as specified in Section 6:
- Appendix 15.3 presents a Fact Sheet on when to notify SafeWork NSW;
- If the **severity score is 1**, it is a localised low risk incident. The Site Supervisor is to assign appropriately trained staff or contractors to combat the incident. The area is to be cordoned off with hi-visibility markers and signage:

- a) the Site Supervisor will inform staff over the UHF Channel 68 or Channel 66 on the incident if required; and
 - b) the Site Supervisor is to brief the weighbridge operator to inform the public not to enter the area and provide information to staff if required;
- if the **severity score is 2**, the incident requires site evacuation. The Site Supervisor is to turn on the siren and announce over UHF Channel 68 and Channel 66 that an evacuation procedure is in place and to assemble at the emergency muster point:
 - a) Supervisors from different work areas are to follow the evacuation procedure directing public and staff to the assembly point;
 - b) the Site Supervisor will ensure no one is left on site and will provide directions as informed by the emergency response crews and Waste Planning;
 - c) where safe to do so, a weighbridge operator will be directed to return to the weighbridge by the Site Supervisor and provide information to any queries.
- where the **severity score is 3**, the incident requires site evacuation and surrounding community consultation:
 - a) the Site Supervisor is to initiate the evacuation procedure on site;
 - b) Supervisors from different work areas are to follow the evacuation procedure directing public and staff to the muster point;
 - c) once at the assembly point, employees may be directed by the Site Supervisor, to door knock the appropriate residences with the potential to be exposed to the pollution incident; and
 - d) where safe to do so, a weighbridge operator will be directed to return to the weighbridge by the Site Supervisor to provide information to any queries from neighbours
 - e) once emergency services have the incident under control, access to site will be at the direction of the Site Supervisor, Waste Operations Manager and/or as instructed by Waste Planning.

10.1.1 Chemical Spills

There is the potential for a chemical spill to occur on this site in the form of container failure, vehicle collision or container dropped.

The following points should be undertaken in conjunction with the actions to be taken for any pollution event listed above. These points should only be conducted if the area is safe to do so:

- identify the type of incident and chemical involved. The chemical should be detailed on the dangerous goods register onsite;
- determine if the spill can be safely contained by staff on site and that it will not enter any drains;
- where no immediate safety hazard exists read the Safety Data Sheet (SDS) located in the “Safety Centre” and collect any necessary PPE based on the spill clean-up information;
- equipment on site will be utilised to clean up spills and authorised material will be used from the site to prevent liquid migration into drainage lines;
- if the **spill occurs on an unsealed surface**, initial response will be to stop the leak. The Safety Data Sheets (SDS) obtained from the “Safety Centre” or site

office should be read for safe handling of the chemical and no open sources of ignition should be in the area:

- a) an excavator or bulldozer will be used to move the contaminated soil into a bunded stockpile and where practical move to a sealed surface. If a sealed surface is not possible, medium density polyethylene (MDPE) sheets will be laid out on the ground and the soil stockpiled on this. All stockpiles will be covered with MDPE; and
- b) the soil will need to be tested to determine if the material is suitable for disposal on site or offsite; and
- c) a 24hr hazardous waste contractor may be called to dispose of the chemical waste.

10.1.2 Fires

Fires in Transfer Stations can occur due to high ambient air temperatures and combustible stored materials. Licence conditions specify that the licensee must take all necessary steps to extinguish all fires burning as soon as possible. The operational procedures in the SMP details fire management protocols. A fire is considered an incident and will need to be reported to the EPA as specified in the site management plan.

In the event a fire is to occur, the safety of persons in the area is of primary importance and should be assessed prior to combating an incident. Emergency services should be contacted where there is any risk to the health and safety of workers. Evacuation and incident procedures detailed in Section 8.

The following points were noted for a fire incident:

- The Site Supervisor will immediately contact emergency services “000”;
- A fire should always be approached from the upwind side to prevent exposure to smoke and potentially hazardous fumes;
- Determine the source of fire and check the area for surrounding hazards such as fuel or other flammable liquids. Where safe to do so, remove these away from the area;
- If safe to do so approach with fire extinguisher or fire hose reel;
- All plant on site must have an appropriate fire extinguisher. Extinguishers are also located at the weighbridge; and
- the fire needs to be documented for incident reporting. This should include;
 - a) time, date and location of any fire ignited or reported at the site;
 - b) prevailing weather conditions and observations regarding smoke directions and dispersion; and
 - c) time and date the fire was extinguished

10.2 Spill response and containment

In the event of a spill the following initial response should be followed:

- Protect yourself by putting on appropriate PPE as required
- Protect others, identifying all people in the vicinity including members of the public,
- Stop the leak (e.g. By turning off the tap, righting the drum or container, or placing in an outer container if possible)
- Contain the leak by placing appropriate absorbent or bunding material in place (using the spill kits that are available)
- Avoid contact with the spilled material

- Advise the Site Supervisor or manager
- If you consider it necessary seek specialist advice and/or spill response, providing details of the chemical if known
- Clean up spill
- Complete incident response form as soon as possible after the situation has been contained.

Clean up spills in the following way:

- Contain the spill using appropriate absorbent material
- Scoop up and recover spilled material and put into a waste container
- Repeat using appropriate absorbent material as many times as necessary in order to remove as much of the spilled material as is practical
- Clean brush and shovel of absorbent material, also placing this into the waste container
- Label waste container with details of contents if known including the absorbent material used
- Place waste container into the appropriate area of the CRC (e.g. Applicable to the spilled material).

10.3 Shutdown of processes/equipment

Plant and machinery is operated by suitably trained personnel. In the event that staff need to leave their equipment as a result of a pollution incident the following measures will need to be undertaken to ensure the machinery is shut down and left correctly:

- Move the machinery to a position where there is no risk to the operator or others on site. Following directions of the Site Supervisor;
- Follow shut down procedures appropriate for the equipment; and
- If the machinery is going to elevate or increase the risk associated with the incident, the Site Supervisor is to be contacted and an alternative area nominated for shut down.

11. Staff Training

The objectives of the training that is to accompany this plan is to ensure all staff members on site are aware of the hazards in the workplace and the contents of the PIRMP such that they know of their responsibilities in the event of a pollution incident.

There are four elements that make up how training is undertaken. These are outlined in the site management plan and include:

- position competency requirements;
- general induction training;
- site specific induction training; and
- ongoing training.

The SMP details the specific competency requirements for each position. All training and inductions are required to be recorded in an onsite register that is available in the SMP.

Staff involved in the operation of the CRC should be trained and demonstrate competency in the following skills:

- Storage and handling of CRC materials including identification, keeping incompatible materials separate, and appropriate spill response.
- Appropriate fitting and use of PPE

- Each and every staff member involved in the operation of the CRC must attend the EPA training prior to operation.

Records showing who was trained, when they were trained, and by whom, are to be maintained for the following training:

- Site induction
- Site specific risk register
- Training by the collection contractor
- Training in the use of the Safe Work Method Statements or equivalent.

11.1 Inductions

The general site induction is specified by the corporate policy of Shellharbour City Council and is relevant to the position of the employee.

This general training also incorporates the WHS requirements for the relevant position. Contractor personnel are required to undertake this WHS training.

Site specific induction training is a requirement and is to be delivered by the Site Supervisor. This training will be specific to the individual role of the staff member and will require a detailed review and acceptance of these documented procedures. The specific induction is to include but not be limited to:

- safety and operating procedures and the correct identification of hazardous waste;
- operation of earthworks and compaction equipment;
- gas testing, water testing and water sampling;
- identification of wastes;
- accurate data recording; and
- pollution incident response management plan.

A training register is to be kept onsite and updated when a staff member undertakes training. This form is included in Appendix 15.5.

When commencing work in the CRC, operators must be instructed in the following:

- general layout of the drop-off and storage areas, in particular the location of safety equipment such as the Safety Data Sheets, PPE, safety shower, eyewash, first aid cabinet and evacuation points.
- Administrative procedures for controlling risks, such as permit to work systems
- Hazardous areas and restrictions on ignition sources, especially vehicles and portable items
- Security measures, signs and procedures
- Record keeping, in particular recording the quantity of materials currently on hand
- General emergency procedures for the facility, including the Fire Plan and Emergency Evacuation Procedures.

11.2 Ongoing training

A review of ongoing training requirements should be conducted on an annual basis and established based on but not limited to:

- changes in procedures;
- changes in regulations;
- changes in equipment;
- errors or deficiencies in job performance; and
- errors in data reporting.

Hazard identification and safe work method statements are required when any new task is to be undertaken on site. This is to be reviewed by staff undertaking that task and will be need to be included in the training register.

Types of ongoing training that may be required for a specific duty may include:

- First Aid Training;
- Chemical Handling Training;
- Training in use of fire extinguishers/ fire management;
- High Risk Work Training; and
- Workplace Health and Safety Training.

11.3 Other Training

11.3.1 Toolbox talks

A toolbox talk is a brief discussion to be undertaken by the Site Supervisor. This is to be undertaken daily or as required prior to the start of work.

The objectives of the toolbox talk are to conduct a regular safety discussion relevant to the specific work being undertaken that day. A toolbox talk register will be completed (Appendix 15.4) this will include:

- description of works to be conducted that day;
- opening and closing procedures
- customer service
- health and safety issues;
- records keeping and reporting;
- storage and changeovers required
- environmental issues; and
- procedural/general issues.

11.3.2 Simulated exercises

A simulated test of this PIRMP is to undertaken annually. The objective of this exercise is to test the effectiveness of the plan and provide an interactive training exercise for staff.

Waste Planning is responsible for ensuring these exercises are undertaken. The planning of this exercise is to be undertaken by the Waste Operations Manager and the Site Supervisor.

The goal of this exercise is to provide a situation that is reflective of an incident that may be encountered on site. Safety is paramount for this exercise and no actual hazard should be conducted (such as the lighting of a fire). These simulated incidents may include:

- Spill; or
- Fire.

Requirements of these exercises are:

- inform those on site that a simulation will be taking place that day;
- inform the public that a simulation will be taking place at the weighbridge and on the website. Specify the time and the date;
- at the toolbox talk on the morning of the simulation, the works coordinator will refresh the staff on the PIRMP and inform them that the simulation will occur that day;

- designate a location on site for the incident to occur;
- define the incident. This will include a pollutant common to site, volume or size of the pollutant, the people involved;
- activate the evacuation procedure and muster all staff to the assembly point; and
- allocate an officer for auditing/supervising this simulation (this should be an officer who is not responsible for the activation of the plan, e.g. Council's WHS officer or a representative of Waste Planning).

The outcome of this exercise is to:

- instruct staff on how to implement this plan;
- contain and manage an incident relative to the site;
- initiate an evacuation;
- document an incident;
- ensure all reporting paperwork is filed and the relevant authorities contacted (only call internal staff and indicate this is part of a simulation. Do not call external authorities); and
- provide feedback to all staff. Where there are non-compliances with the plan, this can be used to refine the PIRMP and provide further training if required.

Periodically (at least annually), the CRC facility operators are to undertake a performance self-assessment of operations at the facility, note any issues, and implement any actions required to ensure the facility is operating safely and efficiently. (Refer to CRC Operations and Management Handbook-2nd edition)

This performance self-assessment is to include the following:

- Condition of infrastructure
- Encroachment of surrounding activities
- Licencing-note any changes in operations that may affect licencing
- Materials storage and handling
- Customer supervision
- Workplace health and safety procedures are understood by staff and implemented.

Frequency of training

The following table indicates the frequency and location of each type of training on site.

Training type	Frequency	Reporting Requirement	How records are kept
General Induction	Commencement of employment	Signed on to the induction record	With the employment records of staff at Shellharbour city Council
Site Specific Induction	Commencement of employment	Understanding and sign onto the induction record	Induction records to be onsite and a copy sent to Shellharbour city council
Toolbox talks	Daily	Daily toolbox form completed	Kept in the site office

Training type	Frequency	Reporting Requirement	How records are kept
Other job specific training	<ul style="list-style-type: none"> On a needs basis or when: There is a change in procedure Change in regulations New equipment Deficiencies in job performance Errors in data reporting/procedure 	Complete the training record form	Training record form to be kept in the site office
Simulation exercises	Yearly	complete the exercise simulation form	Form stored in the site office and a copy send to Waste Planning. PIRMP is reviewed and updated as required.
Performance self assessment	Yearly	Complete checklist	Provide a copy of the completed checklist to the EPA within 30 days
Fire/evacuation Drill	Yearly	Record this with the WHS training	Form stored in the site office and a copy send to Waste Services

12. Testing of the Plan

12.1 Manner in which the plan is to be tested and maintained

The testing of the plan is going to be based on an annual review of the plan in relation to the simulated testing, incident reporting for the past year and any changes in procedures and processes that occurs on site.

The simulation and evacuation drill will be used to test the practical effectiveness of the plan and define areas of improvement. Reporting of incidents will be used to highlight areas of improvement in the plan. Annual reviews will be used to implement any changes that have occurred in the process of running the landfill or regulations of operating under this licence.

Incident reporting and incident simulation is required to be documented as specified in Section 10. A requirement for these documents will include the date and all those who carried out the test. A reporting sheet "Testing of the PIRMP" is provided in Appendix 15.6.

12.2 Review of the Plan

The objective of this PIRMP is to provide a description of the hazards and operations associated with the Environmental Protection Licence on site and the procedures and actions in place to mitigate any pollution event that may arise for them. Consequently, this PIRMP is a working document that is designed to ensure any changes that could affect a pollution incident are captured.

Table 1 - "Table of Revisions" is the register of review identification for the current version of the PIRMP. This will include the document name, the person responsible for the review, the date of change and the changes that were made.

The requirements for the document review are:

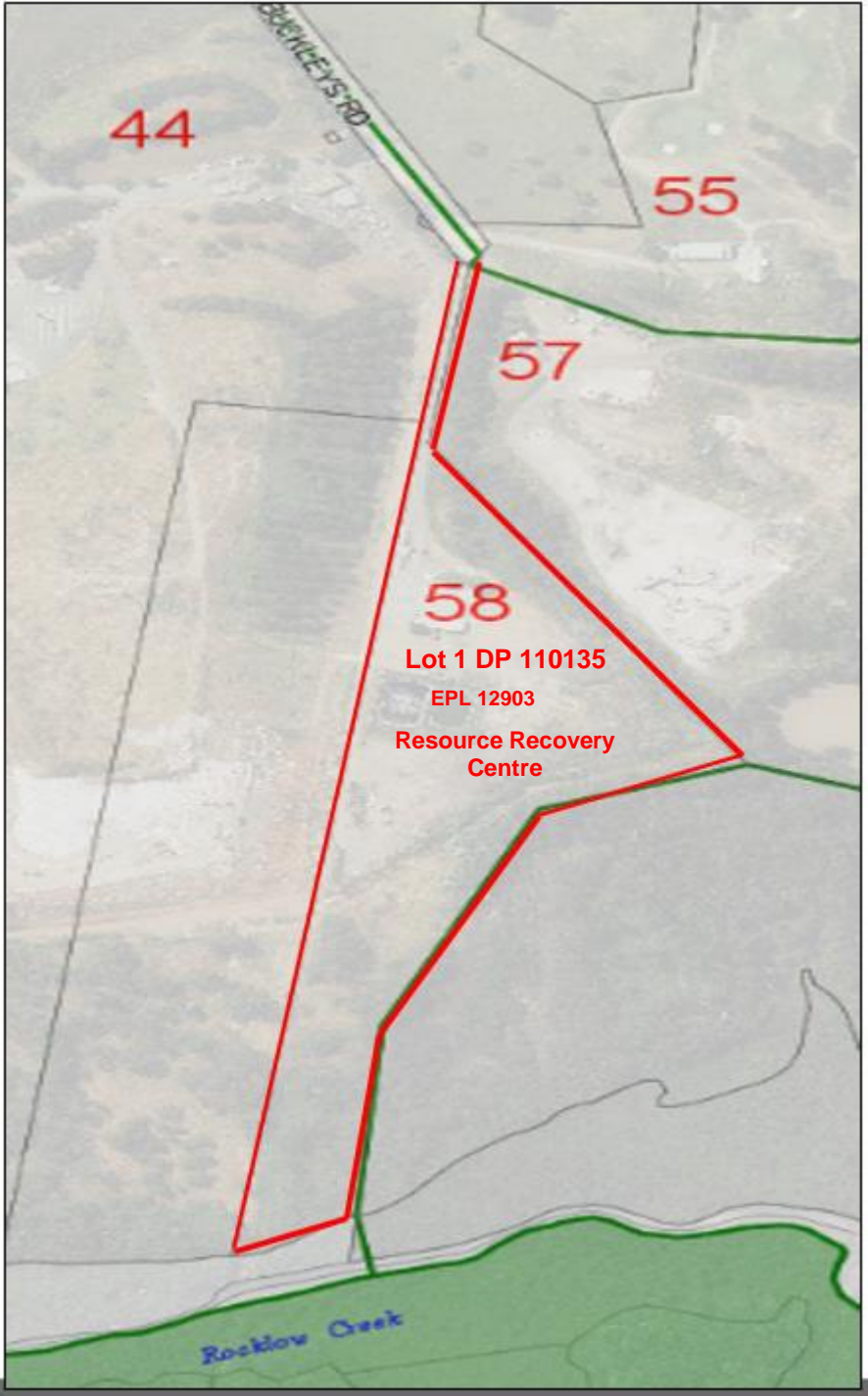
- the review is to be conducted annually from the date of the first version of the document;
- the document is to be reviewed if there is any significant change in process or operation on the site;
- the document is to be reviewed where there is a change in the legislation or the requirements of the Environmental Protection Licence;
- the document is to be reviewed where the testing of the plan identifies a failure or inefficiency; and
- a review is required to be completed within 30 days of a pollution incident.
- The document is to be posted onto Shellharbour City Council waste website www.shellharbourwaste.com.au

13. References

1. Protection of the Environment Operations Act 1997
2. Protection of the Environment Operations (General) Regulation 2009
3. Golder Associates 2010, Site Management Plan: Dunmore Recycling and Waste Disposal Depot. (Report Number 107623020-001-R-RevD)
4. Environmental Protection Authority NSW, *Environmental Guidelines: Solid Waste Landfills*, 1996
5. Environmental Protection Authority NSW, *Environmental Guidelines: Solid Waste Landfills*, Second Edition 2016
6. EPA Notice of Variation of Licence No 12903, 29 August 2017
7. Shellharbour Local Environmental Plan 2000
8. Shellharbour Rural Local Environmental Plan 2004
9. Shellharbour City Council Hazard/Risk Assessment (No. 10660).
10. EPA Community Recycling Centres Operations and management handbook-2nd ed.(2017) State of NSW and Environment Protection Authority
11. WISH- Waste Industry Safety and Health Forum; Reducing Fire Risk at Waste Management Sites (April 2017)

14. Figures

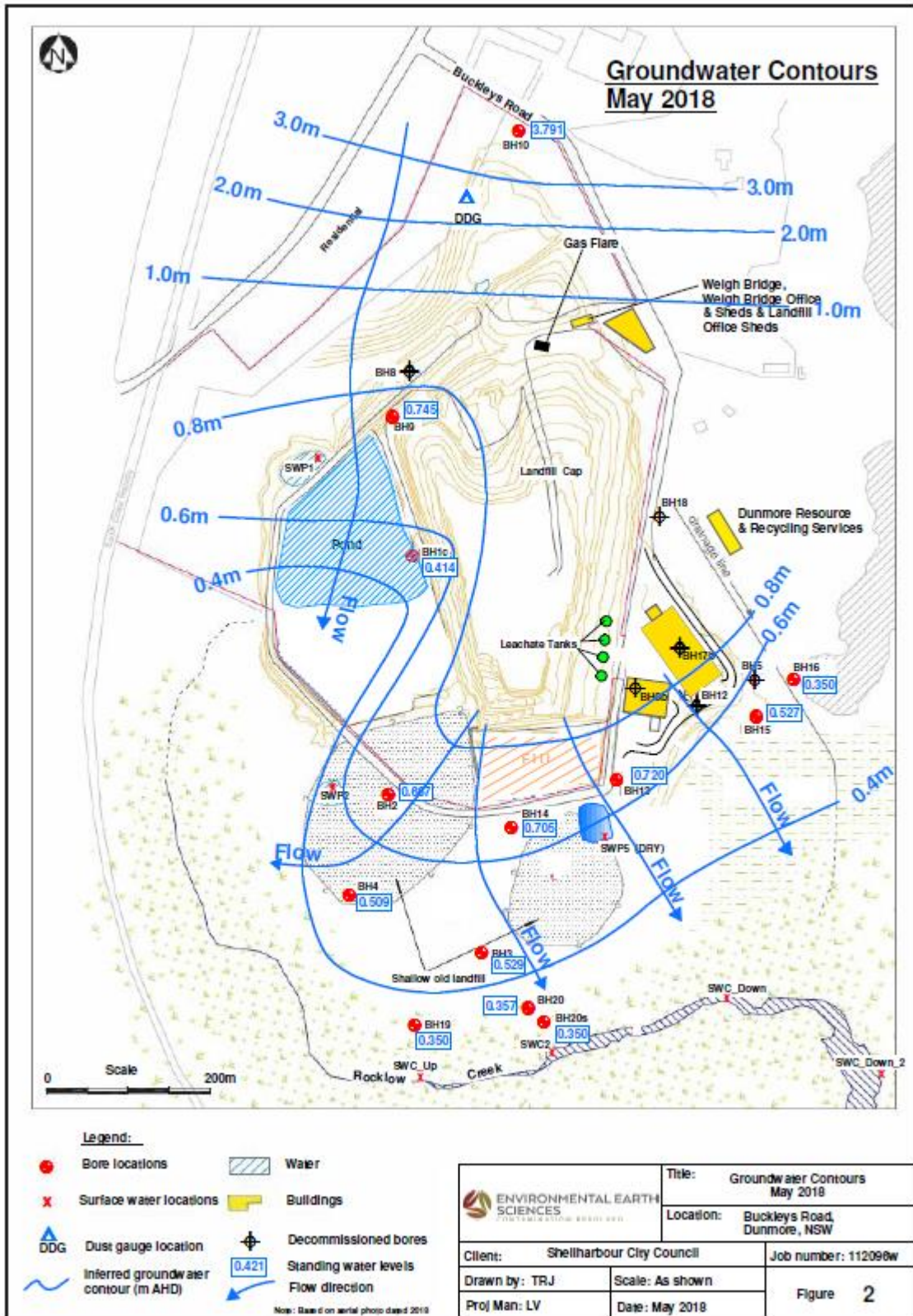
14.1 Site Boundaries



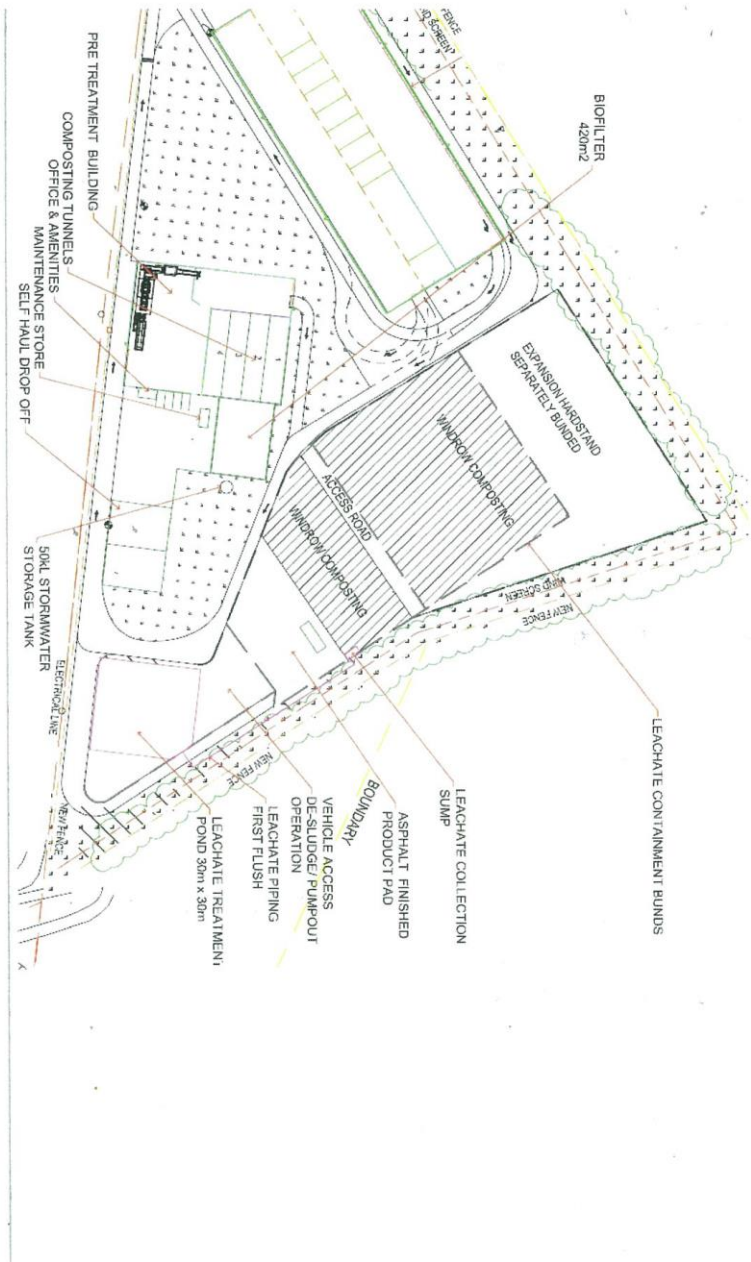
14.2 Historical Filling On Site



14.3 Groundwater Contours



14.4 Re.Grow Site Lay Out



Site Layout



14.6 Drainage and Surface Water Flow Direction

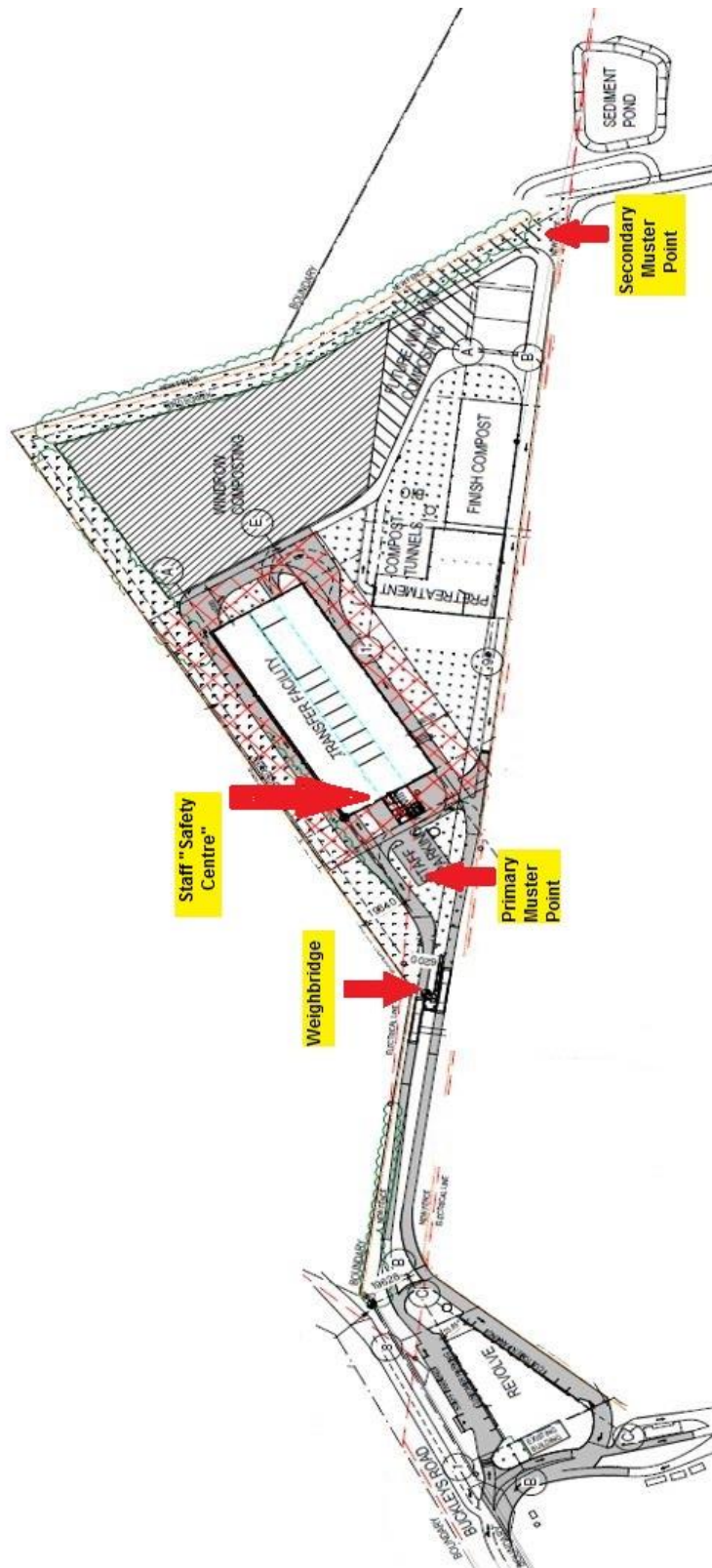


SHELL HARBOUR CITY COUNCIL

DUNMORE LANDFILL
MAY 2016



14.7 Site Map and Evacuation Muster Point



15 Appendix

15.1 Incident Report Form

Incident / Hazard Investigation Report

This form to be completed by the person(s) involved in the incident / hazard and the matter closed out by the Work Health & Safety Manager. Waste Management Officer to endorse prior to filing.		Office Use	
		Report No: (Allocated by Work Health & Safety Manager)	Date Received:
Incident / Hazard report details – To be completed by Incident Reporter			
Name:			
Incident / hazard date & time:	Reported to:	Report Date & Time:	
Location:			
<input type="checkbox"/> First Aid	<input type="checkbox"/> Work Related Illness	<input type="checkbox"/> Drill rig incident	<input type="checkbox"/> Environmental Damage
<input type="checkbox"/> Medical treatment	<input type="checkbox"/> Fatality	<input type="checkbox"/> Property/Plant/Vehicle Damage	<input type="checkbox"/> Hazard / Near Miss
Describe the incident or hazard:			
Pollution incidents			
Chemical Name:		Volume of chemical:	
Describe Action Taken:			
Incident Mechanism:			
<input type="checkbox"/> Slip, Trip or Fall	<input type="checkbox"/> Motor Vehicle Accident	<input type="checkbox"/> Contact Hazardous Substance	<input type="checkbox"/> Struck by Falling Object
<input type="checkbox"/> Contact with Infectious Agent	<input type="checkbox"/> Manual Handling Task	<input type="checkbox"/> Struck by Moving Object	<input type="checkbox"/> Other
Nature of Injury:			
<input type="checkbox"/> Sprain/Strain	<input type="checkbox"/> Burn	<input type="checkbox"/> Bruising	<input type="checkbox"/> Injury to Nerve/Spinal Cord
<input type="checkbox"/> Dislocation	<input type="checkbox"/> Fracture	<input type="checkbox"/> Concussion	<input type="checkbox"/> Internal Injury
<input type="checkbox"/> Cut	<input type="checkbox"/> Other.....		
Body Location of Injury:			
<input type="checkbox"/> Eye	<input type="checkbox"/> Face	<input type="checkbox"/> Back	<input type="checkbox"/> Shoulder/Arm
<input type="checkbox"/> Ear	<input type="checkbox"/> Head	<input type="checkbox"/> Trunk	<input type="checkbox"/> Hand/Fingers
<input type="checkbox"/> Leg/Foot/Toes	<input type="checkbox"/> Internal Organ		
<input type="checkbox"/> Other			
Describe first aid or medical treatment:			
Who provided the treatment:	Phone no:	<input type="checkbox"/> MTI	
		<input type="checkbox"/> LTI	
Staff member signature:	Date:	No. of days off work:	

15.3 SafeWork NSW

Notifying us

If there is a serious injury or illness, a death or a dangerous incident, you must report it to us immediately and notify your insurer within 48 hours.

You must also:

- provide first aid and make sure the worker gets the right care
- record it in the register of injuries
- help the worker [recover at work](#) by identifying and offering suitable employment, staying connected and planning with your worker, their doctor, and your insurer

2 Problems reporting a workplace injury

If you are a worker and your employer has not notified your workplace injury to the insurer or will not provide you with their workers compensation insurance policy number, our Customer Service Centre (call 13 10 50) can look up the employer details so you can call the insurer direct.

3 Notifying us

If a notifiable incident occurs, you must notify us immediately on 13 10 50 as an urgent investigation may be needed. The incident site must be preserved until an Inspector attends (or the inspector or regulator directs otherwise).

A "notifiable incident" under the work health and safety legislation relates to:

- the death of a person
- a serious injury or illness of a person
- a potentially dangerous incident

Significant penalties apply if you fail to notify an incident.

4 Other incidents where workers compensation is payable

You must notify your insurer within 48 hours of becoming aware a worker has received a workplace injury if workers compensation is payable or may be payable (such as for time lost and/or medical expenses). You may avoid paying a claims excess if there is an injury by notifying your insurer within 48 hours.

4.1 Contact details for regulators

To notify a 'notifiable incident' contact your local regulator:

Jurisdiction	Regulator	Telephone	Website
New South Wales	SafeWork NSW	13 10 50	safework.nsw.gov.au
Illawarra Region	WorkSafe Regional Operations	Assistant State Inspector (02) 4222 7341	Address: Level 1, 60 Burelli st, Wollongong NSW 2500

15.4 Toolbox Meeting Record

Date & time:	Location	Name of Presenter
--------------	----------	-------------------

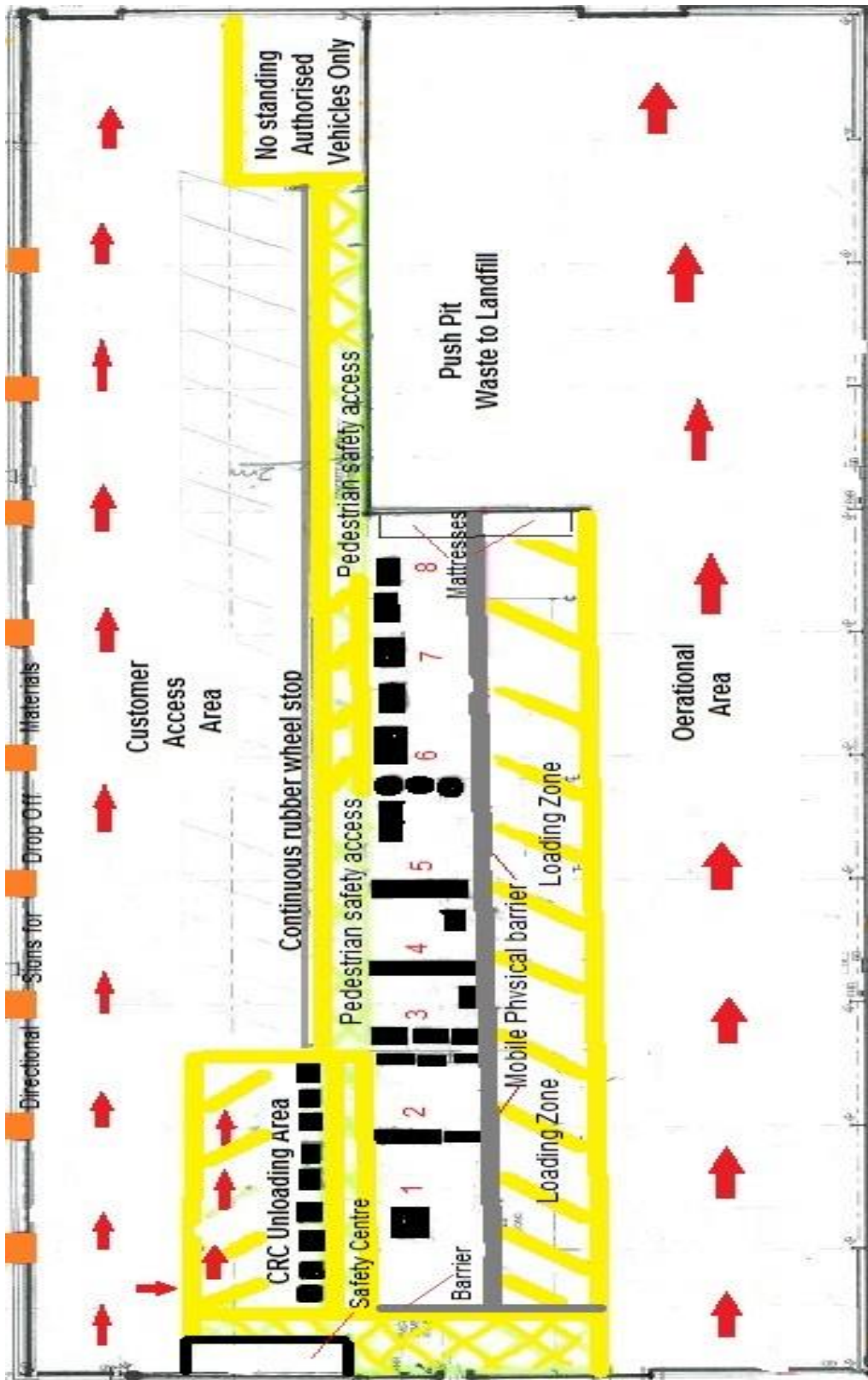
Names of Attendees

Topics Discussed	Actions
Health and safety Issues	
Environmental Issues	
Planning and General Issues	

15.6 Testing of the Plan

Pollution Incident Simulation		
Name of Supervisor:		
Date & time:	Reported to:	Report Date & Time:
Location:		
Names of Attendees		
Describe the situation to be simulated		
Location:	Type of incident:	
Describe the scenario:		
Outcomes		
Did the PIRMP get executed in a timely manner?		
Were all staff aware of their responsibilities?		
Was the incident handled in accordance with the PIRMP?		
Did all relevant authorities get considered?		
Was the handling and containment of the incident appropriate?		
Comments and areas for improvement		
Waste Depot Supervisor		
Name:	Signature:	Date:
Landfill Operations Manager		
Name:	Signature:	Date:

15.7 Transfer Station Drop-Off Layout



15.7 Continued...Bay Layout for Transfer Station

Layout for drop off bays in Shellharbour City Council Transfer Station

BAY	1	2	3	4	5	6	7	8	PUSHPIT	OUTSIDE
GROUP NAME	Community Recycling Centre – Solid (Problem Wastes)	Community Recycling Centre – Liquid & Dangerous DG Class 3	Community Recycling Centre & SCC Managed Problem Waste	Transfer Station Domestic Recyclables SCC Managed Problem Waste	Transfer Station Bulky, Hard,	Transfer Station Bulk to be managed Dangerous DG Class 8	Transfer Station Bulk to be managed by SCC	Transfer Station Bulk to be managed by SCC	Transfer Station	Hardstand area
INCLUDED	CD/DVDs Mobile phones Household batteries Smoke alarms X-Rays	Paint – Oil Paint –Water Oil-Motor Oil-Cooking Paint-spray cans	E-Waste Fluoro globes Textiles Tyres in racking	Paper Cardboard Comingled recyclables Polystyrene Soft plastic	Reuse items Electrical items	Metals (light) Copper Cords Brass Car batteries	Timber offcuts (small)	FOGO Bin Mattresses	Mixed waste - into back end - kerbside pickup material	Pull in bays for:- -Gas bottles -Fire Extinguishers -Garden waste -Self haul whitegoods -Heavy (wt) metal items Mixed Waste Green Waste
Potential	Escape Leakage	Spillage By-catch ⁽¹⁾ Chemical Reaction Fire	Breakage Fire Escape Fire By-catch ⁽¹⁾	Fire Escape	Fire Escape	Escape Leakage Acid Spillage	Escape Fire	Escape Fire	Escape	Explosion Fire Emissions

Note (1) By-catch are any items not defined as household problem waste usually of a toxic nature. (Source Page 8 EPA Household Problem Waste Programs 2015/16 Summary Report)

15.8 CRC Risk Management Plan

Provision is to be made at CRCs for the safe storage of “by-catch”- the small volume of higher toxicity materials which may be received as orphan or illegally dumped dangerous or hazardous materials. Hazards for these materials are outlined below. Consideration of these hazards guides appropriate storage and handling of these materials.

Material	Hazard
Acids	Corrosive
Aerosols – CFC based / flammable	Flammable gas / gas under pressure
Aerosols – flammable, pesticide	Flammable gas / toxic
Alkalis	Corrosive
Arsenic based products	Toxic
Cyanide	Toxic
Engine coolants and glycols	Flammable / possibly reactive
Fire extinguishers – non-halon	Compressed gas / low oxygen atmosphere
Flammable liquids – hydrocarbons, fuels and solvents	Flammable
Flammable solids	Flammable
Flares	Explosive
General household chemical	Low level toxic / corrosive
Heavy metal compounds / mercury – elemental	Toxic
Organic peroxides	Reactive / flammable
Oxidising agents e.g. pool chlorine	Reactive
Paint – other, including isocyanates and amines	Flammable / toxic
Paint – metal based	Toxic
PCB materials	Toxic
Pesticides – non schedule X (non-organochlorine)	Toxic / flammable
Pesticides – schedule X (organochlorine)	Toxic / flammable / ecotoxic
Solvents – halogenated	Toxic

Properties of materials to be considered in hazard identification.

Physical state

Compressed gas
Gas dissolved under pressure
Liquefied gas
Cryogenic liquid
Mobile liquid
Viscous liquid
Volatile liquid
Liquid with solids in solution or suspension
Finely divided solid
Granular / flaked solid
Caked or undivided solid
Physical state as stored / handled if different from above

Flammability

Flashpoint
Sustains flame
Auto ignition temperature
Flammability range LEL – UEL
Evolves / produces hazardous combustion products
Explosion potential

Toxicity

Exposure limits
Toxicity
Irritant
Carcinogen (known / suspected)
Mutagen
Sensitiser
Biologically active

Reactivity

With air
With water
With other materials (details)
Self reactive

Corrosivity

Skin
Metals
Other materials

Physical properties

Solubility in water
Boiling point / range
Melting point / range
Odour
Electrical conductivity / resistance
Relative density
Pressure as packed
Vapour pressure
Polarity
pH as stored and handled
pH of 1% solution

Instability

Decomposition conditions
Hazardous decomposition effects
Hazardous decomposition products
Polymerisation potential
Hazardous polymerisation effects
Inhibitor required
Phlegmatiser required
Blanketing material required
Self accelerating decomposition
Temperature
Control temperature
Other special controls required

Ecotoxicity

Atmospheric pollutant
Ozone depleter
Odorous
Visual pollutant
Marine pollutant
Ground water pollutant
Soil pollutant
Relevant half life information
Special neutralising / absorbent material requirements

Sensitivity

To shock
To heat
To radiation
To moisture
To contamination with other materials

The below Table outlines the hazards arising from materials that could be received at CRCs and possible risk control measures.

Hazard	Material	Hazard events	L / S / Risk	Possible controls	
Corrosive	Acids Alkalis	Container failure	3 / 2 / Medium	Use intermediate containers / spill containment	
		Container dropped	3 / 2 / Medium	Use intermediate container / procedures and training	
		Vehicle collision	2 / 4 / Medium	Store away from traffic	
		Shelving corrosion	2 / 2 / Low	Use intermediate containers	
		Shelving collapse	2 / 4 / Medium	Do not overload shelves	
		Mixing of incompatible substances	3 / 4 / High	Store acids and alkalis separately / procedures	
Flammable	Engine coolants and glycols Flammable liquids – hydrocarbons, fuels and solvents Flammable solids	Container failure in store	3 / 2 / Medium	Use intermediate containers / spill containment	
		Vehicle collision	2 / 4 / Medium	Store away from traffic	
		Shelving collapse	2 / 3 / Medium	Ensure adequate shelving design	
		Ignition of atmosphere	3 / 4 / High	Isolate from ignition / security / ventilate store	
		Adjacent fire	1 / 4 / Medium	Separation / fire suppression / emergency response	
Toxic	Arsenic based products Cyanide Heavy metal compounds / Mercury – elemental Paint – metal based PCB materials Solvents – halogenated	Container failure	3 / 3 / Medium	Use intermediate containers / spill containment	
		Container dropped	2 / 3 / Medium	Use intermediate container	
		Vehicle collision	2 / 4 / Medium	Store away from traffic	
		Shelving collapse	2 / 3 / Medium	Ensure adequate shelving design	
Compressed gas / Low oxygen atmosphere	Fire extinguishers – non-halon	Container failure	3 / 2 / Medium	Emergency response	
		Container dropped	3 / 2 / Medium	Procedures and training	
		Vehicle collision	2 / 4 / Medium	Separation from vehicles	
		Shelving collapse	2 / 4 / Medium	Do not stack cylinders	

.....Continued Hazards

Hazard	Material	Hazard events	L / S / Risk	Possible controls
Explosive	Flares	Explosion and fire	2 / 3 / Medium	Store in segregation device
Flammable / toxic	Paint – other, including isocyanates and amines	Container failure in store	3 / 2 / Medium	Use intermediate containers / spill containment
		Vehicle collision	2 / 5 / High	Store away from traffic
		Shelving collapse	2 / 3 / Medium	Ensure adequate shelving design
		Ignition of atmosphere	3 / 4 / High	Isolate from ignition / security / ventilate store
		Adjacent fire	1 / 4 / Medium	Separation / fire suppression / emergency response
Flammable gas	Aerosols – CFC based / flammable	Container failure	3 / 1 / Low	Emergency response
Flammable gas / toxic	Aerosols – flammable, pesticide	Ignition of atmosphere	3 / 4 / High	Isolate from ignition / ventilate store
		Adjacent fire	1 / 4 / Medium	Separation / fire suppression / emergency response
		Container failure	3 / 1 / Low	Emergency response
		Ignition of atmosphere	3 / 4 / High	Isolate from ignition / ventilate store
		Adjacent fire	1 / 4 / Medium	Separation / fire suppression / emergency response
Low level toxic / corrosive	General household chemical	Container failure	3 / 1 / Low	Use intermediate containers / spill containment
		Container dropped	3 / 1 / Low	Spill containment / emergency response
		Vehicle collision	2 / 2 / Low	Store away from traffic / environment
		Shelving collapse	2 / 1 / Very low	Ensure adequate shelving design
		Shelving corrosion	2 / 1 / Very low	Use intermediate containers
		Mixing of incompatible substances	2 / 2 / Low	Store acids and alkalis separately
		Container failure	3 / 3 / Medium	Use separate cabinet with internal bunding
		Container dropped	3 / 3 / Medium	Use separate cabinet with internal bunding
		Vehicle collision	2 / 4 / Medium	Separate store from traffic
		Mixing of incompatible substances	3 / 4 / High	Use separate cabinet / operating procedures
Reactive	Oxidising agents e.g. pool chlorine			

.....Continued Hazards

Hazard	Material	Hazard events	L / S / Risk	Possible controls
Reactive / flammable	Organic peroxides	Container failure	3 / 3 / Medium	Use separate cabinet with internal bunding
		Container dropped	3 / 3 / Medium	Use separate cabinet with internal bunding
		Vehicle collision	2 / 4 / Medium	Separate store from traffic
		Mixing of incompatible substances	3 / 4 / High	Use separate cabinet / operating procedures
		Ignition of materials	2 / 4 / Medium	Isolate from ignition
		Adjacent fire	1 / 4 / Medium	Separation / fire suppression / emergency response
Toxic / flammable	Pesticides – non schedule X (non-organochlorine)	Container failure	3 / 3 / Medium	Use intermediate containers / spill containment
		Container dropped	2 / 3 / Medium	Use intermediate container
		Vehicle collision	2 / 4 / Medium	Store away from traffic
		Shelving collapse	2 / 3 / Medium	Ensure adequate shelving design
		Ignition of atmosphere	2 / 4 / Medium	Isolate from ignition / ventilate store
		Adjacent fire	1 / 4 / Medium	Separation / fire suppression / emergency response
Toxic / flammable / ecotoxic	Pesticides – schedule X (organochlorine)	Container failure	3 / 3 / Medium	Use intermediate containers / spill containment
		Container dropped	2 / 3 / Medium	Use intermediate container
		Vehicle collision	2 / 4 / Medium	Store away from traffic / environment
		Shelving collapse	2 / 3 / Medium	Ensure adequate shelving design
		Ignition of atmosphere	2 / 4 / Medium	Isolate from ignition / ventilate store
		Adjacent fire	1 / 4 / Medium	Separation / fire suppression / emergency response

15.9 FOGO Plant Emergency Management Plan



Emergency Management Plan Re.Grow Shellharbour FOGO Facility

ISSUE NO # 1	NAME:	SIGNATURE	DATE
AMENDMENT NO # 1 REVISED DETAILS:			
AMENDMENT NO # 2 REVISED DETAILS:			

CONTENTS

1	PURPOSE	4
2	SCOPE.....	4
3	OBJECTIVES	4
4	DEFINITIONS	4
5	STATUTORY REQUIRMENTS	5
5.1	Standard Documents	5
5.2	Australian Standards	5
6	AUTHORITY & RESPONSIBILITIES.....	5
6.1	Authority.....	5
6.1.1	Roles in Emergency Preparation and Training.....	5
6.1.2	Roles in an Emergency	6
6.1.3	Roles in Critical Incident Recovery	6
6.1.4	RESPONSIBILITIES OF SENIOR MANAGEMENT	7
7	EMERGENCY MANAGEMENT SYSTEM.....	7
7.1	Summary Emergency Plan	7
7.2	Emergency Response Procedures	7
7.3	Business Continuity Plans	8
7.4	Emergency Preparedness (Training & Drills)	8
7.5	Inspection of Emergency equipment	9
7.6	Document Control	9
7.7	Contingency Plan for Waste.....	9
8	SUMMARY EMERGENCY PLAN	10

1 PURPOSE

Re.Group is a leading company in the recycling and organics processing industries. We pride ourselves on operating plant and equipment at our facilities in a safe and controlled manner to minimise the risk of failure and increase the operational life span of the equipment. This document has been put together to outline the preparation for, and response to, emergencies which may arise in the operation of Dunmore FOGO Facility (Facility).

2 SCOPE

This Emergency Management Plan applies to the Facility which is operated and maintained by Re.Group. The facility generally consists of the following equipment: building infrastructure, conveyors, screening equipment, shredders, compost tunnels and supporting equipment, and mobile plant.

This plan covers Emergencies, defined as unexpected and sudden events which represent a major risk for human safety or property. The plan is subdivided into the immediate response to an emergency (to preserve life and, if possible, property), and recovery plans (to get back to operation safely and effectively).

3 OBJECTIVES

This Emergency Management Plan is designed to protect life and property in the event of an emergency at the Facility, and to allow the operation to recover from an emergency as quickly as practicable. It is a live document and will be regularly updated to ensure that the objectives are achieved regularly and predictably.

4 DEFINITIONS

Following are a list of definitions used in the Emergency Management Plan procedures:

EMP- Emergency Management Plan

ERP- Emergency Response Plan

BCP- Business Continuity Plan

RDT- Recycling Design & Technologies (Aust) Pty Ltd. (RDT is a Re.Group company)

FOGO- Food Organics & Garden Organic Material

PM- Planned Maintenance

Sub Contractors- Outside services that design and/or manufacture products from the customer's specifications

Plant- Recycling & waste recovery facilities, plant & equipment which have been designed, supplied, installed and/or operated by Re.Group

5 STATUTORY REQUIRMENTS

The personnel and contractors who operate and work within the Facility or on equipment managed by or in partnership with Re.Group must ensure that they work within the guidelines detailed in the following documents and standards:

5.1 STANDARD DOCUMENTS

- RTA:07-07.1-PD-001- RDT Workplace Health and Safety Manual
- RDT/QM0901- RDT Quality Manual
- RDT/CEM0910- RDT Construction & Environmental Policy
- RDT Standard Work Method Statements and Procedures

5.2 AUSTRALIAN STANDARDS

All relevant Australian Standards and Legislation including but not limited to the following:

- State and local government workplace health and safety regulations
- BCA- Building Code of Australia
- ISO 9001- Quality management systems
- AS IEC 61882- HAZOP Studies

6 AUTHORITY & RESPONSIBILITIES

6.1 AUTHORITY

All employees have the authority to perform their allocated responsibilities. The following provides a summary of the principal responsibilities of each job role.

All employees share the authority and responsibility of identifying emergencies and taking action to initiate the relevant emergency procedure(s). All staff are authorised to identify gaps in training or emergency preparedness and alert the Facility Manager of any shortfalls.

The Managing Director continually reviews the company's resources to ensure that adequate staff, equipment and materials are available to meet requirements of this plan.

6.1.1 ROLES IN EMERGENCY PREPARATION AND TRAINING

The Site Manager is responsible for documentation and preparation for an emergency, including training and drills. The Site Manager will determine the people to be trained, and the frequency of that training. The Site

Emergency Management Plan

Manager is responsible for coordinating the training and drills. Individual employees are responsible for ensuring that they attend the training sessions and participate in drills.

6.1.2 ROLES IN AN EMERGENCY

The following roles apply in an emergency:

- **Chief Warden** (the most senior person on site at the time)
 - Ensure appropriate emergency services have been notified and co-ordinate evacuation;
 - Wait in the middle of the car park for the arrival of emergency services and pass on relevant information regarding status of emergency.
- **Area Wardens** (Leading hands)
 - Are responsible for co-ordinating personnel in the workplace to ensure that they follow the Chief Warden instructions and to ensure that personnel within their areas of control are aware of the necessary response following an emergency event.
 - Proceed to evacuation assembly area if evacuation required;
 - Nominate personnel to check all areas including car parks, toilets and change rooms etc.
 - Proceed to assembly area and ensure everybody is accounted for, pass on relevant information to Chief Warden.
- **First Aid Officer** (the shift first aid officer, or any other first aid trained person delegated by the Chief Warden)
 - Provide first aid to injured people as directed by the Chief Warden

The Site Manager is responsible for ensuring that at any time there are enough trained employees on site to fill these roles in an emergency. When the plant is not operating, one person may fill several roles.

Additionally, any person who brings onto site a visitor or contractor is responsible for the evacuation of that visitor or contractor. This **Responsible or Contact Person** must ensure that the visitor or contractor is alerted to the emergency and assist that person to evacuate if needed.

6.1.3 ROLES IN CRITICAL INCIDENT RECOVERY

Following an emergency, responsibilities will be divided amongst management as follows:

- **Site Manager:**
 - Take overall control of the recovery effort.
 - Brief the media if authorised to do so by the MD or a director.
 - Notify neighbours (if applicable).
 - Notify Council (where appropriate).

- Assist the Environmental Protection Authority (EPA) to investigate the emergency if required.
- Assess any damage to the plant and arrange repairs as required.
- Assess any impact on the process and arrange interim operations as required.
- Assist WorkCover and/or the police to investigate the emergency as required.
- Initiate, follow up and close out incident report.
- Coordinate with WorkCover and insurance company as required for any injuries.
- Coordinate with insurance company as required for any other insurance claim.

Given the unpredictable nature of emergencies and incident recovery, all employees will assist as required with recovery operations.

6.1.4 RESPONSIBILITIES OF SENIOR MANAGEMENT

The Site Manager is ultimately responsible for establishing, implementing and maintaining the Emergency Management System. Specific responsibilities comprise:

- Formulating the EMP & objectives
- Management review
- Periodic review of the Facility operation and emergency preparedness
- Providing adequate resources including training and equipment

7 EMERGENCY MANAGEMENT SYSTEM

7.1 SUMMARY EMERGENCY PLAN

A Summary Emergency Plan will be developed to quickly explain the appropriate response to an emergency. It will also contain an emergency contact list. This summary plan will be stored on the Re.Group server, and also posted at certain locations around the site. The summary plan will be reviewed at least once every 12 months. The contact list section of the plan will be reviewed at least once every 3 months, and updated when required.

7.2 EMERGENCY RESPONSE PROCEDURES

Emergency Response Procedures (ERPs) will be developed for the most likely emergency situations. Each ERP will provide a step-by-step guide to the Emergency Controller on how to handle the situation. The ERPs are listed below. The ERPs will be stored on the Re.Group server, and hard copies will be posted at certain locations around the site.

ERP Number	Emergency Response Procedure
ERP-01	On-Site Medical Emergency
ERP-02	On-Site Fire Emergency

Issue No: 1

Doc No TBC

Issued On: TBC

Page 7 of 10

Issued By: Manager

Uncontrolled when printed

Emergency Management Plan

ERP-03	Vehicle Compactor Fire (Hot Loads)
ERP-04	On-Site Chemical Spill (Hazardous Substances)
ERP-05	Vehicle Liquid Spills (Vehicle Hydraulic/Fuel/Oil Systems)
ERP-06	Vehicle Dangerous Goods Spills (Vehicle Bulk Transport)
ERP-07	Toxic or Hazardous Materials
ERP-08	Bomb Threat
ERP-09	Suspicious Packages
ERP-10	Impact of Neighbouring Emergencies

These procedures are reviewed every 2 years, when there is a change in the legislation or after an emergency when the ERP has been activated.

7.3 BUSINESS CONTINUITY PLANS

Business continuity plans (BCPs) will be developed to document strategies for recovery from an emergency. These plans will cover the alternative arrangements and information required for recovery from an emergency or loss of critical resources.

BCP Number	Business Continuity Plan
BCP-01	Loss of Utilities or Fuel
BCP-02	Interruption of Waste Deliveries
BCP-03	Loss of Major Mobile Plant
BCP-04	Loss of Major Static Plant
BCP-05	Loss of Data, Records or Office Resources
BCP-06	Major Damage to the Facility
BCP-07	Denial of Access to the Facility
BCP-08	Loss of PLC or SCADA Systems

Each business continuity plan will have an assigned owner who is responsible for ensuring the plan is reviewed and kept up to date.

7.4 EMERGENCY PREPAREDNESS (TRAINING & DRILLS)

Training and drills are conducted to ensure that relevant people understand their roles in an emergency, and can perform the tasks required of them. This training includes, but is not limited to:

- Emergency evacuation drills (all employees, at least once every 12 months);
- Fire extinguisher training (all employees, at least once every 12 months);
- Fire hose training (all employees, at least once every 12 months);
- First aid training; and
- Training in emergency response and the ERPs.

7.5 INSPECTION OF EMERGENCY EQUIPMENT

The following emergency equipment shall be tested and maintained by specialist consultants in accordance with statutory requirements:

- Fire extinguishers and fire hose reels (including equipment in work vehicles)
- Emergency signage and lighting
- Emergency communication equipment (two-way radio)
- Any other specific emergency equipment identified

Emergency equipment shall also be visually checked as part of the regular workplace safety inspections.

7.6 DOCUMENT CONTROL

The Summary Emergency Plan, ERPs and BCPs are controlled documents and the updates will be managed in accordance with the standard Re.Group procedures for document control.

7.7 CONTINGENCY PLAN FOR WASTE

Each ERP will include instructions for short-term diversion of collection vehicles away from the site. In the event that an emergency is extended or causes long-term availability issues for the facility, the relevant BCP will include options for longer term diversion of waste.

8 Summary Emergency Plan

1) Purpose

To provide a detailed and portable plan for action to control and/or minimise the effects of an emergency on people, property and the environment.

2) Scope

This emergency plan applies to the Hume MRF and all occupants.

3) Alarm Initiation

Any person that detects an emergency situation shall immediately notify the Chief Warden or the most senior person on site.

4) What to do in the event of an Emergency

Proceed immediately to the Emergency Assembly Point via nearest Exit Door

5) Emergency Assembly Point

All personnel on site including contractors and visitors shall proceed immediately to the Emergency Assembly Point near the entrance gate of the facility at Buckleys Rd.

6) Accounting for All Personnel

Wardens

7) Site Responsibilities

Chief Warden

- The most senior person on site

Area Wardens

- Leading Hands

First Aid Officers

- Trained First Aid Officers

Plant shut down & Technical Information

- Site Manager

WorkCover and Insurance Matters

- Site Manager

Environmental and EPA Matters

- Site Manager

8) Public Relations

Site Manager or Managing Director/Board

9) Emergency Services

Fire Brigade	000
Police	000
Ambulance	000
Local Hospital (Shellharbour)	(02) 42952500
Pollution Notification Line	131 555

10) Neighbour Notification

Chief Warden to contact if required

Pat Keating	04214 86202
Lucas McPherson	04029 44784

11) Dangerous Goods on Site

Substances	Capacity	Location
Sulphuric Acid 98%	12,000 litres	Designated Bunded Area

12) Other Potential pollutants on Site

Substances	Capacity	Location
Diesel	5,000 litres	Purpose Built Tank portable.

13) Description of potential Emergencies

See detailed ERPs

14) Training & Review

As appropriate but at least once a year

15) Site Layout

Site layout is displayed on office notice board.

16) Accident/Incident Investigation

To be nominated by Site Manager

17) Critical Incident Recovery

Lead by Site Manager with team support

18) Authorisation

Site Manager: P. Keating

Date: 1.9.2017