Carbon Mate Pty. Ltd.

Pollution Incident Response Management Plan

for the

Carbon Mate Organic Recyclers
Composting Facility
Gregadoo Waste Management Center
Wagga Wagga, New South Wales
EPA License Number 11998

September 2016

Table of Contents

1 Carbon Mate Pty Ltd 3
1.1 Objectives of this Pollution Incident Response Management Plan 3
1.2 Definition of a Pollution Incident 3
2 Environmental Hazards - Aspects and Impacts 5
3 Control of Environmental Impacts 8
4 Inventory of Pollutants 9
5 Safety Equipment 9
6 Contact Details 10
6.1 Emergency Contact Details 10
6.2 Responsibilities and Authorities during a Pollution Incident 11
6.3 EPA Pollution Incident Notification Protocol 11
7 Communicating with Neighbours and the Local Community 12
8 Minimising Harm to Persons at the Composting Facility 12
9 Maps 13
10 Pollution Incident Response Procedure 14
11 Employee Training 15
12 Requirements for PIRMP Availability 16
13 Testing of the PIRMP 16
13.1 Testing of the PIRMP - Requirements 16
13.2 Testing of the PIRMP - Record 17
14 Implementing the PIRMP 18

1 Carbon Mate Pty Ltd

Carbon Mate Pty Ltd (hereafter called 'Carbon Mate') was founded by Charles and Gillian Bannatyne in 2009. Carbon Mate began with operations in the agricultural reuse of biosolids in 2010. In October 2011 Carbon Mate purchased the business known as Riverina Compost Mulching that now operates as Carbon Mate Organics Recyclers. The composting facility is located within the Gregadoo Waste Management Center, Wagga Wagga NSW and operates with the EPA License number 11998.

1.1 Objectives of this Pollution Incident Response Management Plan

Carbon Mates has prepared this Pollution Incident Response Management Plan (PIRMP) for the scheduled activity of composting as required by the Protection of the *Environment Legislation Amendment Act 2011* (POELA Act) and Part 5.7A of the *Protection of the Environment Operations Act 1997* (POEO Act).

The objectives of this plan are to ensure that in event of a pollution incident occurring:

- There is timely and informative communications regarding the incident to the Environment Protection Authority (EPA), and other relevant authorities including local councils, the NSW Ministry of Health, WorkCover NSW, and Fire and Rescue NSW.
- That people and organisations located outside the composting facility that may be affected by the impacts of a pollution incident are also notified.

This Pollution Incident Response Management Plan also aims to:

- Identify, minimise and control the risk of a pollution incident occurring at the Carbon Mate Organic Recyclers composting facility. Identifying the potential environmental aspects and impacts associated with the operations of the composting facility, minimising and controlling the identified risks will achieve this.
- Ensure that this plan is properly implemented and regularly tested for accuracy, currency and suitability.

1.2 Definition of a Pollution Incident

A pollution incident is defined as being:

An incident where 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 in which a substance has been placed or disposed of on the premises, but it does not include an incident involving only the emission of any noise.

The relevant authorities ***must*** be notified of a pollution incident where there is a risk of ***material harm to the environment***.

Section 147 of the POEO Act defined material harm 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.*

Pollution incidents must be reported to the EPA, NSW Health, Fire and Rescue NSW, WorkCover NSW and the local council immediately. This is to ensure that the relevant response agencies have direct access to the information needed to manage and deal with the incident in a faster time.

Call 000 if the incident presents an immediate threat to human health or property.

Fire and Rescue NSW, the NSW Police and the NSW Ambulance Service are the first responders, as they are responsible for controlling and containing incidents.

If the incident does not require an initial combat agency, or once the 000 call has been placed, notify the relevant authorities in the following order.

EPA Environment Line	131 555
NSW Health	02 9391 9000
WorkCover NSW	13 10 50
Local Council - WWCC	1300 292 442
Fire and Rescue NSW	000

2 Environmental Hazards - Aspects and Impacts

The operations and activities at the Carbon Mate Organic Recyclers composting facility have the potential to harm the environment. It is critical to understand and manage these operations and activities to ensure that they have minimal impact on the environment.

Environmental aspects are actions that can have an interaction with the environment. Resource reuse, odour generation and spills are all examples of environmental aspects.

Environment impacts are the changes that occur to the environment as a consequence of the aspect. Changes can be either positive or negative. Examples of environmental impacts may include surface water pollution, ground water pollution, resource conservation, and community complaints.

Significant environmental aspects are determined using a risk assessment process and are defined as having a significant environmental impact. Probability, severity, and scale risk scores are detailed in Table 1 and the level of risk is determined by multiplying the scores. Impacts with a risk score of 12 and above are considered to have a high level of risk and shall be considered as having a Significant Environmental Impact.

Table 1. Impact Risk Scores

Probability	Severity	Scale	Score
Rare	Insignificant	Immediate	1
Unlikely	Minor	Local	2
Possible	Moderate	Regional	3
Likely	Major	National	4
Certain	Catastrophic	Global	5

Awareness of the actual or potential significant environmental impacts associated with the operations of the composting facility is important in order to minimise the risk of harm to the environment. Employees, contractors and customers whose actions may create a significant impact will receive appropriate training and awareness on how these impacts are managed. The risk assessment for the environmental hazards of the Carbon Mate Organic Recyclers composting facility is presented in Table 2.

Table 2. Environmental Aspects and Impacts Register

Activity	Environmental Aspects	Environmental Impacts	Impact Assessment				Significant Aspect
			Probability	Severity	Scale	Risk Score	
Receiving and Storing Feedstock	Vehicle Movement	Community Distress - Dust	2	2	1	4	
		Soil Compaction	4	2	1	8	
	Pathogen Source	Harm to Human Health & Safety	3	3	1	9	
	Odour Generation	Community Distress - Odour	3	2	2	12	Significant
		Pollution of Air	3	2	2	12	Significant
	Fuel Spill from Machinery	Pollution of Land	3	3	2	18	Significant
		Pollution of Surface Water	3	3	2	18	Significant
	Disposal of Contaminant Waste – Unclassified	Pollution of Product	3	3	1	9	
		Pollution of Land	3	3	1	9	
		Pollution of Surface Water	3	3	1	9	
	Dry Feedstock Fire Source	Harm to Human Health & Safety	3	3	2	18	
		Air Pollution	3	3	2	18	
Dewatering Feedstock	Feedstock Spill to Ground	Pollution of Land	3	2	1	6	
		Pollution of Surface Water	3	2	1	6	
	Polymer Spill to Ground	Pollution of Land	3	3	1	9	
		Pollution of Surface Water	3	3	1	9	
Composting of Feedstock	Vehicle Movement	Soil Compaction	4	2	1	8	
		Break Through in Tip Cell Capping	3	3	1	9	
	Fuel Spill from Machinery	Pollution of Land	3	3	1	9	
		Pollution of Surface Water	3	3	1	9	
	Generation of Leachate	Pollution of Land	3	2	1	6	
		Pollution of Surface Water	3	2	1	6	
	Odour Generation	Community Distress - Odour	3	2	2	12	Significant
		Pollution of Air	3	2	2	12	Significant

Table 2. Environmental Aspects and Impacts Register

Activity	Environmental Aspects	Environmental Impacts	Impact Assessment				Significant Aspect
			Probability	Severity	Scale	Risk Score	
Storage of Fuel and Lubricants	Fire Source	Harm to Human Health & Safety	3	3	2	18	Significant
		Pollution of Air	3	3	2	18	Significant
	Spill to Ground	Harm to Human Health & Safety	3	3	1	9	
		Pollution of Land	3	3	1	9	
		Pollution of Surface Water	3	3	1	9	
Storage of Chemicals	Spill to Ground	Harm to Human Health & Safety	3	3	1	9	
		Pollution of Land	3	3	1	9	
		Pollution of Surface Water	3	3	1	9	
Waste Generation	Chemical Containers	Resource Recycled	4	2	2	16	
Leachate Management	Failure of Leachate Containment	Pollution of Ground Water	3	3	2	18	Significant
		Pollution of Surface Water	3	3	2	18	Significant
		Pollution of Land	3	3	2	18	Significant
	Flooding of Leachate Containment	Pollution of Surface Water	3	3	2	18	Significant
Stormwater Management	Contaminated Stormwater	Pollution of Surface Water	3	3	2	18	Significant
		Pollution of Ground Water	3	3	2	18	Significant
Flooding	Uncontrolled Release of Contaminated Surface Water	Pollution of Surface Water	3	3	2	18	Significant
		Pollution of Ground Water	3	3	2	18	Significant

3 Control of Environmental Impacts

The management controls for the identified Environmental Impacts are listed in Table 3.

Table 3. Management Controls

Environmental Impact	*Environmental Aspect*	*Management Controls*
Community Distress	Dust	• Wet Down Road in Dry Weather
	Odour	• Process Odorous Feedstock on Receipt • Create Carbon Filter Using Wood Chips
Harm to Human Health & Safety	Risk of exposure to Pathogens, contaminants and microorganisms	• Wash hands and scrub nails with soap before eating, drinking or smoking. • Cover cuts and skin abrasions with waterproof dressing. • Do not consume food or drink while working with biosolids or compost • No smoking is permitted while working with biosolids or compost. • Suitable clothing, footwear and gloves are worn to protect against sharp objects. • Eye protection is worn to protect eyes against dust.
	Fire	• Employees to be trained in Carbon Mate Organic Recyclers Fire Management Plan. • Fire Extinguishers and Fighting Equipment located at the Office and at the Workshop.
	Storage of Fuel and Chemicals	• Diesel stored in mobile diesel tank. • Chemicals stored in the Chemical Storage Shed. • Spill Kit located in the Office.
	Handling of Fuel and Chemicals	• Employees to be familiar with the Fuel or Chemicals MSDS and wear correct PPE during handling.
Pollution of Land, Surface and Ground Water	Contaminated Waste	• Feedstock to be inspected on receipt for potential sources of contamination.
	Leachate	• Vacuum tanker that is located on site manages leachate. Bunded area around entire site.
	Storage of Fuel and Chemicals	• Grease & Fuels to be stored in the Oil Shed. • Chemicals to be stored in the Chemical Storage Shed. • Spill Kit located at the Office.
	Handling of Fuel and Chemicals	• Employees to be familiar with the Fuel or Chemicals MSDS and wear correct PPE during handling.
Pollution of Product	Contaminated Waste	• Inspections preformed on incoming feedstock. • Biosolids routine monitoring. Grease trap waste routine testing.

4 Inventory of Pollutants

Table 4. Inventory of Pollutants

Pollutant	*Maximum Quantity*	*Storage Location*
Petrol	20 Litres	Grease & Oil Shed
Oil	400 Litres	Grease & Oil Shed
Diesel	1,000 Litres	Above Ground Tank
Polymer	100 Litres	Dewatering Unit
Glyphosate	20 Litres	Chemical Shed
Coolant	5 Litres	Grease & Oil Shed

The storage locations of the above listed pollutants are shown in Figure 1.

5 Safety Equipment

Table 5. Description of Safety Equipment and Storage Location.

Description of Safety Equipment	*Storage Location*
Dust Masks	Workshop & Office
Safety Glasses	Workshop & Office
Nitrile Gloves	Workshop & Office
Ear Plugs	Workshop & Office
Tyvek Overalls	Workshop & Office
Vacuum Tanker	On Site
Spray Tank	On Site

Fuel and Chemicals	*MSDS*
Petrol	
Oil	

6 Contact Details

6.1 Emergency Contact Details

Names, positions and 24-hour contact details for Carbon Mate Organic Recycles are presented in Table 6.

Table 6. Carbon Mate Organic Recyclers Emergency Contact Details

Name	Position Title	Contact Details
Charles Bannatyne	Owner & Manager	0417 931 575
Gillian Bannatyne	Owner & Manager	0427 931 572
Paul Reid	Site Supervisor	0418 465 168

Additional emergency contact details are presented in Table 7.

Table 7. Additional Emergency Contact Details

Carbon Mate Organic Recycler	02 69223344
Wagga Wagga Police Station	02 6922 2599
Wagga Wagga Base Hospital	02 6938 6666
Wagga Wagga City Council	1300 292 442
NSW Rural Fire Service Riverina Zone	02 69315855
Lake Albert Bush Fire Brigade	0427213047 & 0427262450
SES	132 500
Poisons Information Centre	131 126
Country Energy	132 356
Wagga Wagga City Council Weighbridge Bruce Roberts	02 69264003 0429 320 788

6.2 Responsibilities and Authorities during a Pollution Incident

In the event of a pollution incident, Gillian Bannatyne and Sean Francis, are authorised to notify the relevant authorities, and to managing the incident.

6.3 EPA Pollution Incident Notification Protocol

The EPA have developed a Pollution Incident Notification Protocol available at www.environment.nsw.gov.au/pollution/notificationprotocol.htm

Pollution incidents must be reported to the EPA, NSW Health, Fire and Rescue NSW, WorkCover NSW and the local council immediately. This is to ensure that the relevant response agencies have direct access to the information needed to manage and deal with the incident in a faster time.

Call 000 if the incident presents an immediate threat to human health or property.

Fire and Rescue NSW, the NSW Police and the NSW Ambulance Service are the first responders, as they are responsible for controlling and containing incidents.

If the incident does not require an initial combat agency, or once the 000 call has been placed, notify the relevant authorities in the following order.

EPA Environment Line	131 555
NSW Health	02 9391 9000
WorkCover NSW	13 10 50
Local Council - WWCC	1300 292 442
Fire and Rescue NSW	000

7 Communicating with Neighbours and the Local Community

The Carbon Mate Organic Composting facility is located within the Gregadoo Waste Management Center (Figure 2) on Ashford's Road, owned by the Wagga Wagga City Council. The site occupies the top of an old solid waste cell located on the western side of Boiling Down Creek and north of the main entrance road.

In the event of a pollution incident occurring at the composting facility, Carbon Mate will contact the Wagga Wagga City Council on 1300 292 442 to provide an early warning and regular updates.

The closest neighbour is located 1 km from the composting facility.

8 Minimising Harm to Persons at the Composting Facility

Carbon Mate follows the Gregadoo Waste Management Center Evacuation Procedure.

The muster location for the site is at the front gates of the Gregadoo Waste Management Centre.

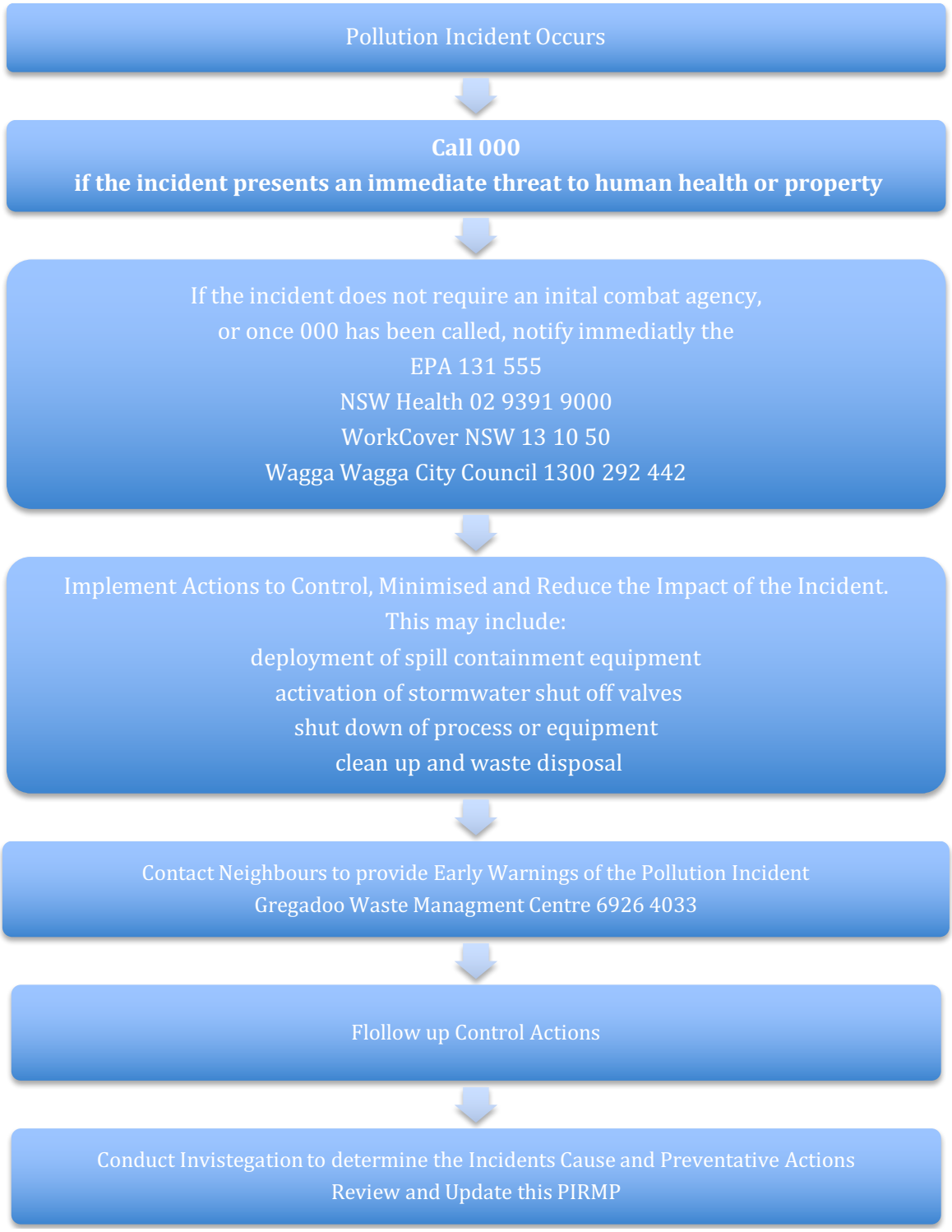
A First Aid Kit and Landline phone are available in the Carbon Mate Office.

9 Maps

Figure 1. Storage Location for the Inventory of Pollutants

Figure 2. Gregadoo Waste Management Center

10 Pollution Incident Response Procedure



When calling **'000'** as for either Ambulance, Fire or Police

Remain calm, speak clearly and don't hang up until told to do so

Give your name and the location of the incident

Carbon Mate Organic Recycling is located within the

Gregadoo Waste Management Centre (GWMC)

located at 132 Ashfords Road, Wagga Wagga

The facility is owned by the Wagga Wagga City Council

The nearest intersection is **Ashfords Road** and **Boiling Down Road**

11 Employee Training

Carbon Mate will provide instruction, training and information to employees and subcontractors on the operations of the composting facility. The operating procedures detailed in this Management System will form the reference material to be used in operational training.

Training will follow a sequence of:

- Demonstration – learning from watching and by asking questions of competent operators while reading the relevant standard operation procedure.
- Practice – learning by practicing tasks using relevant standard operating procedures.
- Consolidation – learning by continued practice with little supervision.

Each employee and subcontractor will also receive 6 monthly environment, health and safety training that will include the following:

- Processes for the management of the environment, health and safety including the identification and reporting of hazards,
- Environment, health and safety procedures relevant to the operations including relevant risk control measures such as the use of personal protective equipment,
- How environment, health and safety information can be accessed,
- Procedures for the management of incidents or emergencies (this prodedure).

Carbon Mate will ensure that any person who may be exposed to a health and safety risk are informed of the risk, and are provided with information, instruction and training necessary to ensure the person's health and safety. Carbon Mate will maintain electronic record and retain evidence that necessary training has been undertaken.

12 Requirements for PIRMP Availability

A copy of this Pollution Incident Response Plan must be maintained at the Carbon Mate Organic Recycling composting facility for EPA license 11998, so that it is readily available to those responsible for its implementation and to an authorised officer on request.

Sections of the plans must be made publicly available within 14 days after they have been prepared by providing copies of them, without charge, to any person who makes a written request for a copy if the licensee does not have a website.

The information to be made available to the public must include:

- the procedures for contacting the relevant authorities including the EPA, local council, NSW Ministry of Health, WorkCover NSW, and Fire and Rescue NSW.
- the procedures for communicating with the community
- may be exclusive of any personal information within the meaning of the Privacy and Personal Information Protection Act 1998.

13 Testing of the PIRMP

13.1 Testing of the PIRMP - Requirements

It is a requirement that the Pollution Incident Response Management Plan must be tested routinely, and at least once every 12 months.

The testing must ensure that the information included in the plan is accurate and up to date, and that the plan is capable of being implemented in a workable and effective manner.

The methods of testing may include undertaking a desktop simulations and practical exercises or drills. Testing must cover all components of the plan, including the effectiveness of training.

Plans must also be tested within one month of any pollution incident to determine whether the information included in the plan is accurate and up to date, and the plan is still capable of being implemented in a workable and effective manner.

13.2 Testing of the PIRMP - Record

Testing of PIRMP Record	
Date of testing the PIRMP:	07/10/2016
Manner in which the PIRMP was tested:	Desktop & Practical Exercises
Names of the Staff Members who conducting the testing:	GB, PR,CB,FF, PC,HB.
Is the information in the PIRMP accurate and up to date?	yes
If NO what information requires updating?	
Can the PIRMP be implemented in a workable & effective manner?	Yes
If NO what updates are required?	
Date on which the PIRMP was updated following testing:	

14 Implementing the PIRMP

It is a requirement that if a pollution incident occurs at the composting facility so that material harm to the environment is caused or threatened, Carbon Mate must immediately implement any pollution incident management response that was developed to meet the requirements of the POEO Act.