Environmental Protection Act 1986

Section 68A

CLOSURE NOTICE

PERSON TO WHOM THIS NOTICE IS GIVEN:

Bio-Organics Pty Ltd ACN: 110 856 052 C/o LG Accounting Solutions Suite 3 465 Scarborough Beach Road OSBORNE PARK in the State of Western Australia

("Bio-Organics")

PREMISES TO WHICH THIS NOTICE RELATES:

The Bio-Organics Pty Ltd compost manufacturing and soil blending Premises located at Abernethy Road, Oakford in Western Australia and being more particularly described as:

Lot 35 on Diagram 66393 and Lot 36 on Diagram 66394, Abernethy Road, Oakford, being the land as shown in Schedule 1 of this Notice.

("the Premises")

COMMENCEMENT DATE

This notice shall have effect from the date on which it is given to Bio-Organics Pty Ltd.

REASON FOR WHICH THIS NOTICE IS SERVED:

The Premises was subject to a licence under Part V of the Act held by the occupier of the Premises to undertake compost manufacturing and soil blending activities.

This notice is given as a result of something that has been done at the relevant Premises, before the expiry of Licence No. 8475/2010/2 ("the Licence"), namely, manufacturing of compost using controlled waste. Elevated levels of nitrogen in the groundwater adjacent to the composting facility have been found. Ongoing monitoring, auditing and management are required at the Premises following revocation of the Licence, in order to regulate the closing down of the facility given the amount of organic material present on the Premises and the composting process already underway with some of that material, to require management of key facilities and to require ongoing groundwater monitoring.

REQUIREMENTS OF THIS NOTICE:

Terms used in this Notice shall have meaning as defined in Appendix 1 and if not defined in that Appendix shall have their normal meaning.

Bio-Organics is required to do the following:

1. FEEDSTOCK MATERIALS

- 1.1. Immediately cease to accept or allow Feedstock materials onto the Premises unless it is Clean Sand used only for the purpose of soil blending with organic material already onsite.
- 1.2. Immediately erect signage at the entry to the Premises stating that the facility is no longer accepting Feedstock materials.

2. PREMISES SURVEY AND INVENTORY

- 2.1. Engage the services of an independent licensed surveyor within seven days of this Notice being issued, to conduct a survey of the volume (in m³) and location of all Feedstock and products within the Premises boundary.
- 2.2. The abovementioned survey shall address the following Feedstock and product types:
 - 2.2.1. Greenwaste;
 - 2.2.2. Mulched Greenwaste;
 - 2.2.3. Pasteurised Greenwaste;
 - 2.2.4. Compost in Process;
 - 2.2.5. Completed Compost;
 - 2.2.6. Screened Completed Compost;
 - 2.2.7. Blended Soils;
 - 2.2.8. Clean Sand; and
 - 2.2.9. Any additional Feedstock or products within the Premises boundary.
- 2.3. Notify the CEO in writing within 48 hours of engaging the services of the independent licensed surveyor outlined in requirement 2.1 and provide the name and contact details of that person with the notification.
- 2.4. The survey outlined in requirement 2.1 shall be conducted within seven days of Bio-Organics engaging the services of an independent licensed surveyor.
- 2.5. Direct the independent licensed surveyor to provide the survey report outlined in requirement 2.1 directly to the CEO within seven days of the survey being conducted.

- 2.6. Upon receipt of the surveyor's report outlined in requirement 2.1, immediately implement and maintain a written inventory of all Feedstock and products (excluding Clean Sand) at the Premises and any Feedstock and products (excluding Clean Sand) leaving the Premises.
- 2.7. The inventory specified in requirement 2.6 must:
 - 2.7.1. be updated every two months;
 - 2.7.2. be made available for the viewing of the independent Auditor specified in requirement 3.2; and
 - 2.7.3. include all sale receipts, transport dockets or disposal receipts of Feedstock or products (excluding Clean Sand) leaving the Premises.

3. AUDITING REQUIREMENTS

- 3.1. Engage the services of an independent Auditor within seven days of this Notice being issued.
- 3.2. Commencing four weeks after this Notice is issued, Bio-Organics shall direct the Auditor to undertake the following actions:
 - 3.2.1. conduct quarterly inspections of the Premises to determine compliance or otherwise with the requirements of this Notice;
 - 3.2.2. audit records of all Compost, Blended Soils, Mulch and Feedstock materials that leave the Premises against the relevant documentation and site materials inventory on a quarterly basis;
 - 3.2.3. audit records of all Compost, Blended Soils, Mulch and Feedstock materials that remain within the boundary of the Premises on a quarterly basis;
 - 3.2.4. provide quarterly reports within five days of undertaking the audits directly to the CEO outlining results of the compliance inspections outlined in requirement 3.2.1 and the audit of records required under requirements 3.2.2 and 3.2.3; and
 - 3.2.5. The audits specified this requirement 3.2 shall cease following the third audit undertaken on the 28th week after the date this Notice is issued.
- 3.3. Bio-Organics is required to report to the CEO in writing within 48 hours of engaging the services of an independent Auditor outlined in requirement 3.1 and provide the name of that Auditor and contact details with the notification.

4. STORAGE AND PROCESSING

- 4.1. Subject to requirements 4.2 and 4.3 of this Notice, store and process all materials outlined in requirement 2.2 (with the exception of Clean Sand) on the Designated Hardstand Area depicted in Schedule 2.
- 4.2. Relocate all materials outlined in requirement 2.2 (with the exception of Clean Sand) onto the Designated Hardstand Area depicted in Schedule 2 so that requirement 4.1 is met.
- 4.3. The relocation referred to in requirement 4.2 shall occur within seven days of the completion of the survey outlined in requirement 2.2.
- 4.4. Notify the CEO in writing within 48 hours of the relocation referred to in requirement 4.2 being completed.
- 4.5. Construct an Impervious Bund to surround the Designated Hardstand Area depicted in Schedule 2 so that all Leachate, Dust Suppression Water and Stormwater is contained within the Designated Hardstand Area or stored in accordance with requirement 5 of this notice.
- 4.6. The Impervious Bund specified in requirement 4.5 of this Notice shall be completed within 14 days of this Notice being issued.
- 4.7. Report to the CEO in writing within 48 hours of the completion of the Impervious Bund.
- 4.8. Provide the CEO with a written certification from an independent suitably qualified professional within seven days of completion of the Impervious Bund to confirm that the bund meets the specifications of requirement 4.5 of this Notice.

5. POND MANAGEMENT

After 28 days from the date of giving this notice Bio-Organics shall not direct to or store Leachate, or Contaminated Stormwater in either the Leachate Retention Pond or the Lined Pond depicted in Schedule 3, unless the specifications outlined under headings 6 and 7 below, respectively, have been met and certified by an independent suitably qualified professional.

6. LEACHATE RETENTION POND

- 6.1. Prior to the use of the Leachate Retention Pond for the purpose of storing Leachate or Contaminated Stormwater, Bio-Organics must:
 - 6.1.1. ensure that the liner of the Leachate Retention Pond depicted in Schedule 3 meets the requirements outlined in Schedule 4 of this Notice; and
 - 6.1.2. provide the CEO with certification in writing from an independent suitably qualified professional confirming the specifications of this requirement 6.1 have been met.

7. LINED POND

- 7.1. Remove all material stored within the Lined Pond depicted in Schedule 3 within seven days of this Notice and store that material in an Impervious Containment Facility pending incorporation into the composting process or returned to the Lined Pond if the integrity of the pond has been independently certified as specified in requirement 7.3 and 7.6.
- 7.2. Notify the CEO in writing within 48 hours of the Lined Pond being emptied.
- 7.3. Within seven days of the Lined Pond being emptied, Bio-Organics shall engage the services of an independent suitably qualified professional to conduct a test on the integrity of the pond's liner to ensure it meets the in situ permeability requirement of less than 1 x 10-9 m/s and covers the whole pond without holes, tears, or failure of welds.
- 7.4. Notify the CEO in writing within 48 hours of engaging the services of the independent suitably qualified professional specified in requirement 7.3 and provide the name and contact details of that person with the notification.
- 7.5. The integrity test specified in requirement 7.3 shall be conducted within seven days of Bio-Organics engaging the services of an independent suitably qualified professional.
- 7.6. The result from the integrity test outlined above shall be provided directly to the CEO in writing within seven days of being completed.

8. WATER MANAGEMENT

- 8.1. Ensure that no Pooled Leachate, Dust Suppression Water or Contaminated Stormwater occurs within the Designated Hardstand Area depicted in Schedule 2.
- 8.2. Direct or manually move all Leachate or Contaminated Stormwater on the Designated Hardstand Area to an Impervious Containment Facility.
- 8.3. Ensure that a minimum 300mm Freeboard is maintained in the Impervious Containment Facility at all times if those containment facilities are the Lined Pond or Leachate Retention Pond depicted in Schedule 3 and which meet the specifications set out under headings 6 and 7, respectively.
- 8.4. Direct Uncontaminated Stormwater away from the Designated Hardstand Area depicted in Schedule 2.
- 8.5. Ensure that all drains at the Premises shall be kept clear of debris.

9. GREENWASTE MANAGEMENT

- 9.1. All Greenwaste currently within the Premises boundary is not to be composted and is only to be subject to the process of Pasteurisation and/or is Mulched prior to removal from the Premises.
- 9.2. Store all Greenwaste in accordance with the following requirements:
 - 9.2.1. in windrows no more than:
 - a) eight metres wide;
 - b) three and a half metres in height;
 - c) 60 metres long; and
 - 9.2.2. aerated on a monthly basis.
- 9.3. Ensure that windrows have four metres of clear ground between each windrow (or stockpiles) and any other combustible material.

10. COMPOST MANAGEMENT

- 10.1. Process and store all material outlined in requirement 2.2 (except Greenwaste and Clean Sand) in accordance with the following requirements:
 - 10.1.1. In windrows no more than:
 - a) eight metres wide;
 - b) three and a half metres in height; and
 - c) 130 metres long.
- 10.2. Ensure that windrows shall have four metres of clear ground between each windrow (or stockpiles) and any other combustible material.
- 10.3. Finalise all materials currently being composted at the Premises as a Completed Compost product within five months of this Notice being given.
- 10.4. Remove the Completed Compost product referred to in requirement 10.3 from the Premises within six months of this Notice being issued.

11. GROUNDWATER MONITORING

- 11.1. Conduct groundwater monitoring using the services of an independent suitably qualified professional.
- 11.2. Commencing within one month of this Notice being issued, groundwater monitoring at all of the bores identified in Schedule 5 of this Notice.
- 11.3. Monitor, sample and analyse the parameters outlined in Schedule 6 of this Notice.
- 11.4. Conduct groundwater monitoring at the frequency outlined in Schedule 6 of this Notice.
- 11.5. Ensure that monthly monitoring is undertaken at least 25 days apart and quarterly monitoring is undertaken at least 80 days apart.

- 11.6. The groundwater monitoring specified in requirement 11.2 shall be collected and preserved in accordance with the relevant section of the Australian Standard AS/NZS 5667.11:1998: Water Quality – Sampling, Part 11 – Guidance on Sampling of Groundwaters and Section 8.2.4 of Schedule B2 of the National Environment Protection (Assessment of Site Contamination) Measure 1999 ("NEPM method").
- 11.7. The groundwater samples referred to in requirement 11.2 shall be completed using low flow sampling equipment. Section 8.2.4 of the NEPM method shall be referred to for guidance on implementing low flow sampling methods.
- 11.8. The groundwater monitoring samples referred to in requirement 11.2 shall be submitted to a National Association of Testing Authorities (NATA) accredited laboratory for analyses of the parameters outlined in Schedule 6 of this Notice and in accordance with the requirements of requirement 11.6.
- 11.9. Notify the CEO in writing within seven days of identifying that any bore depicted in Schedule 5 has been rendered unusable.
- 11.10. Monitoring results for the groundwater sampling shall be provided within 28 calendar days of the sampling being completed and submitted to the CEO.
- 11.11. The groundwater sample results must be submitted to the CEO with the following requirements:
 - 11.11.1. Data must be presented in tabular form and as a time series graph for each monitoring location outlined in Schedule 5;
 - 11.11.2. Results must include complete set of laboratory analytical certificates; and
 - 11.11.3. Results must include chain of custody documents.

12. AIR EMISSIONS MANAGEMENT

- 12.1. Take all reasonable and practicable measures to ensure that odour emitted from the Premises shall not unreasonably interfere with the health, welfare, convenience, comfort or amenity of any person who is not on the Premises.
- 12.2. Use water sprays and other dust suppression measures to prevent or minimise dust generation from transport activities and operations at the Premises so that no visible dust crosses the boundary of the Premises.
- 12.3. In implementing requirement 12.2, water shall not be applied in such volumes as to cause Pooled Dust Suppression Water.
- 12.4. Ensure materials specified in requirement 2.2 are not burnt at the Premises.
- 12.5. Store all Environmentally Hazardous Material in a compound that meets permeability requirements of less than 1 x 10-9 m/s which is designed to contain at least 110% of the volume of the largest storage vessel or inter-connected system, and at least 25% of the total volume of substances stored in the compound.

- 12.6. The compound referred to in requirement 12.5 is must:
 - 12.6.1. be graded or include a sump to allow recovery of liquid;
 - 12.6.2. be chemically resistant to the substances stored;
 - 12.6.3. include valves, pumps and meters associated with transfer operations wherever practical. Otherwise the equipment shall be adequately protected (e.g. bollards) and contained in an area designed to permit recovery of chemicals released following accidents or vandalism;
 - 12.6.4. be designed such that jetting from any storage vessel or fitting will be captured within the bunded area as per Section 5.9.3(g) of AS 1940-1993;
 - 12.6.5. be designed such that chemicals which may react dangerously if they come into contact, are in separate bunds in the same compound or in different compounds; and
 - 12.6.6. be controlled such that the capacity of the bund is maintained at all times (e.g. regular inspection and pumping of trapped uncontaminated rain water).
- 12.5. Any liquid resulting from spills or leaks of Environmentally Hazardous Material, whether inside or outside the compound outlined in requirement 12.5, shall be immediately removed and disposed of to an appropriate licensed disposal facility.
- 12.6. Any incident that included the loss of Environmentally Hazardous Material shall be recorded and a record provided to the CEO in the independent Auditor's three monthly reports specified in requirement 3.2.4.

JASON/BANKS ACFING CHIEF EXECUTIVE OFFICER DEPARTMENT OF ENVIRONMENT REGULATION

27 June 2014

IMPORTANT NOTE: A PERSON WHO IS BOUND BY THIS NOTICE AND WHO DOES NOT COMPLY WITH THIS NOTICE COMMITS AN OFFENCE.

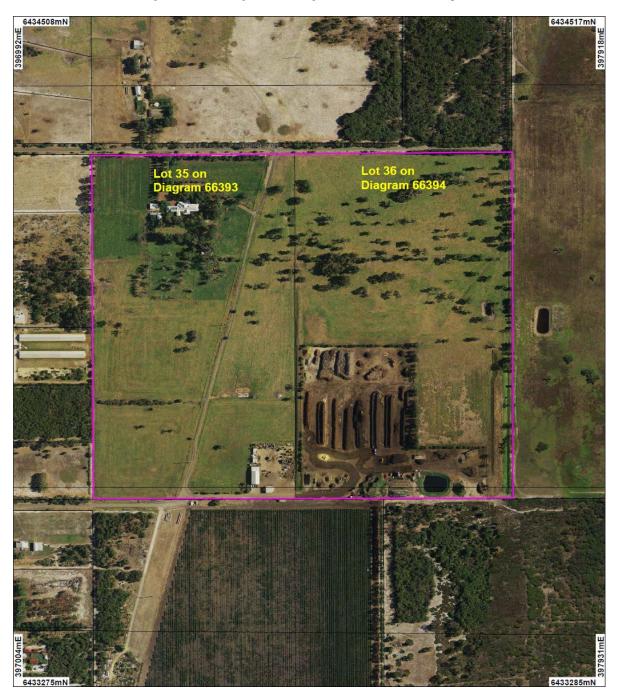
A person who is aggrieved by a requirement contained in this Notice may within 21 days of being given this Notice lodge with the Minister for Environment an appeal in writing setting out the grounds of that appeal.

Any other person who disagrees with a requirement contained in this Notice may within 21 days of the making of that requirement lodge with the Minister for Environment an appeal in writing setting out the grounds of that appeal.

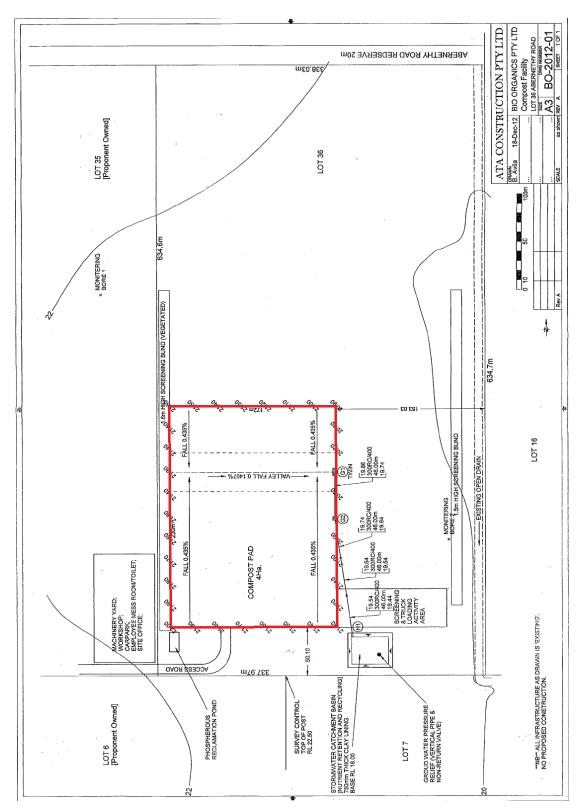
PENDING THE DETERMINATION OF AN APPEAL REFERRED TO ABOVE THE RELEVANT REQUIREMENTS CONTAINED IN THIS NOTICE CONTINUE TO HAVE EFFECT.

PREMISES TO WHICH THIS NOTICE RELATES

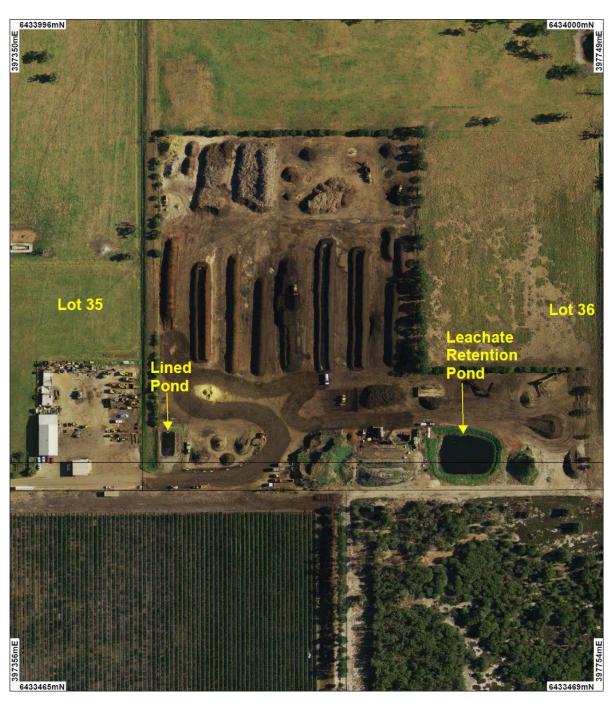
The pink line depicts the premises boundary



LOCATION OF DESIGNATED HARDSTAND AREA



The red line depicts the Hardstand boundary



LOCATION OF LEACHATE RETENTION POND AND LINED POND

REQUIREMENTS OF POND LINER

The compacted soil liner must be 300mm thick or greater.

An independent suitably qualified professional must be employed to supervise the construction of the liner. The suitably qualified professional must carry out appropriate sampling, testing and then certifying that:

- The selected lining material conforms to the following minimum criteria:
 - Percentage fines passing a 75 micron sieve greater than 30%;
 - Percentage fines passing a 2 micron sieve greater than 15%;
 - Liquid limit less than 70;
 - Plasticity index: greater than 15 and less than 30; and
 - Emerson class number: 5 to 6.
- The soil liner has been placed in a maximum of 150mm layers and compacted to achieve at least 95% of the maximum dry density at optimum moisture content in accordance with the Australian Standard 1289.6.7.
- Each compacted layer has been tested to confirm that the design densities have been achieved as described below:
 - A minimum of one test for every 1250m² of waste containment area, and one test per 35 lineal metres of perimeter embankment is required.
- Special care has been exercised with embankments to achieve an equivalent low permeability seal to the liner, design soil densities, erosion resistance and resistance to the threat of slumping/piping failure. This may involve initial placement of extra fill and cut back to design dimensions.
- The finished holding facilities are proof-tested to confirm that the liner has an in situ permeability of less than 1×10^{-9} m/s when tested in accordance with the Australian Standard 1289.6.7.2.



LOCATION OF GROUNDWATER MONITORING BORES

GROUNDWATER SAMPLING PARAMETERS AND FREQUENCY

Monitoring	Parameter	Units	Level of	Frequency
Bores		(4115)	Detection	
BH01; BH02; BH03; BH04; MB01; MB02; MB03A; MB04 (as depicted in Schedule 5)	Standing water level	m(AHD)		_
	рН			
	Electrical	µS/cm		Monthly (July,
	conductivity			August, September,
	Redox potential	mV		October, November
	Total nitrogen as N	mg/L	0.1	and December) for
	Total kjeldahl	mg/L	0.1	the first six months
	nitrogen as N			from the date this
	Ammonia (NH ₃)	mg/L	0.01	Notice is issued, then
	Nitrate (NO ₃)	mg/L	0.01	quarterly (March, June, September, December) for the entire duration of this Notice.
	Nitrite (NO ₂)	mg/L	0.01	
	Nitrate + Nitrite as N	mg/L	0.01	
	Total phosphorus	mg/L	0.01	
	Reactive	mg/L	0.01	
	phosphorus			
	Bicarbonate	mg/L	5	
	Sodium	mg/L	5	
	Potassium	mg/L	5	
	Calcium	mg/L	5	
	Magnesium	mg/L	5	
	Chloride	mg/L	5	
	Sulfate	mg/L	5	
	Total recoverable	μg/L	100	
	hydrocarbons and	15	(C6 –C10	
	all fractions between		= 20)	
	C_6 and C_{40} (to be		,	
	sampled using the			
	NEPM method)			Commencing in July
	Benzene	µg/L	1	2014, then
	Toluene	µg/L	2	quarterly
	Ethylbenzene	μg/L	2	(commencing in
	Xylenes	µg/L	2	September,
	Phenols	µg/L	1 - 2	December, March, June) for the entire duration of this
	Arsenic (filtered)	mg/L	0.001	
	Cadmium (filtered)	mg/L	0.0001	Notice.
	Chromium (VI)	mg/L	0.001	
	(filtered)	Ū		
	Copper (filtered)	mg/L	0.001	1
	Lead (filtered)	mg/L	0.001	1
	Nickel (filtered)	mg/L	0.001	1
	Zinc (filtered)	mg/L	0.005	1
	Mercury (filtered)	mg/L	0.00005	1
	Iron	mg/L	0.05	1
	Aluminium	mg/L	0.00	-

APPENDIX 1

DEFINITIONS

'10⁻⁹ m/s' has a permeability of less than 1×10^{-9} metres per second when measured in accordance with AS 1289;

'Act' means Environmental Protection Act 1986;

'AS 1940-1993' means Australian Standard 1940-1993 *The Storage and Handling of Flammable and Combustible Liquids;*

'AS 1289' means the Australian Standard AS/NZS 1289 *Methods of testing soils for engineering purposes*;

'Auditor' means a person accredited as an auditor under the *Contaminated Sites Act 2003*;

'Bio-Organics' means:

Bio-Organics Pty Ltd ACN: 110 856 052 c/o LG Accounting Solutions Suite 3 465 Scarborough Beach Road OSBORNE PARK in the state of Western Australia;

'Blended Soils' means materials or products which have resulted in clean sand being blended with compost material;

'Bund' means an embankment or wall forming a low permeability barrier (i.e. having a hydraulic conductivity of less than 1×10^{-9} metres per second at unity hydraulic gradient) which forms the perimeter of a compound to prevent escape of any liquids from the compound (other than by evaporation);

'CEO' means Chief Executive Officer, Department of Environment Regulation;

'CEO' for the purpose of correspondence means:

Chief Executive Officer Department of Environment Regulation Locked Bag 33 CLOISTERS SQUARE WA 6850 Telephone: (08) 6467 5000 Facsimile: (08) 6467 5562 Email: info@der.wa.gov.au;

'Clean Sand' means material that will have no harmful effects on the environment and which consists of soil or sand arising from the excavation of undisturbed material;

'Completed Compost' means compost which has undergone the composting process and is complete as an end product for sale or use;

'Compost' means an organic product that has undergone controlled aerobic and thermophilic biological transformation through the composting process;

'Compost in Process' means compost currently undergoing the composting process;

'Composting' means the process whereby organic materials are microbiologically transformed under controlled aerobic conditions;

'Contaminated Stormwater' means stormwater which has come into contact with materials specified in requirement 3.1;

'Designated Hardstand Area' means the area depicted in Schedule 2 of this Notice;

'Dust Suppression Water' means water used for the purposes of suppressing dust emissions at the Premises;

'Environmentally Hazardous Material' means material (either solid or liquid raw materials, materials in the process of manufacture, manufactured products, products used in the manufacturing process, by-products and waste) which if discharged into the environment from or within the Premises may cause pollution or environmental harm. Note: Environmentally hazardous materials include dangerous goods where they are stored in quantities below placard quantities. The storage of dangerous goods above placard quantities is regulated by the Department of Mines and Petroleum;

'Feedstock' means any organic or inorganic material used in the composting process;

'Freeboard' means the difference in height between the water level in the pond and the crest of the lowest embankment;

'Greenwaste' means untreated trees or plants;

'Impervious' means anything which has a permeability of less than 1×10^{-9} metres per second when measured in accordance with AS 1289;

'Impervious Containment Facility' means a contained facility which has a permeability of less than 1×10^{-9} metres per second when measured in accordance with AS 1289;

'Leachate' means liquid released by or water that has percolated through materials specified in requirement 3.1 (except Clean Sand) and which contains some of its constituents;

'Leachate Retention Pond' means the pond depicted in Schedule 3;

'Lined Pond' means the pond depicted in Schedule 3;

'm(AHD)' means metres above (or below) the Australian Height Datum as defined by Geoscience Australia (a Federal Government agency) where AHD forms the reference for the measurement and reporting of required heights;

'Mulched' means greenwaste shredded by a mechanical process into small pieces no larger than 15 x 15 x 100 millimetres;

'mg/L' means milligrams per litre;

'm³' means cubic metres;

'mm' means millimetre;

'm/s' means metres per second;

'mV' means millivolts;

'NATA' means the National Association of Testing Authorities, Australia;

'NATA accredited' means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis;

'NEPM method' means Section 8.2.4 of Schedule B2 of the National Environment Protection (Assessment of Site Contamination) Measure 1999;

'Pasteurisation' means the process whereby organic materials are treated to significantly reduce the numbers of plant and animal pathogens and plant propagules (weeds);

'Pasteurised Greenwaste' means Greenwaste which has undergone the process of pasteurisation;

'Pooled' means a body of freestanding liquid which is stationary;

'Premises' means Lot 35 on Diagram 66393 and Lot 36 on Diagram 66394, Abernethy Road, Oakford, Western Australia, 6121 as depicted in Schedule 1;

'Process' means any activity resulting in the production of compost;

'Quarterly' means the 4 inclusive periods from 1 April to 30 June, 1 July to 30 September, 1 October to 31 December and in the following year, 1 January to 31 March;

'Schedule 1' means Schedule 1 of this Notice unless otherwise stated;

'Schedule 2' means Schedule 2 of this Notice unless otherwise stated;

'Schedule 3' means Schedule 3 of this Notice unless otherwise stated;

'Schedule 4' means Schedule 4 of this Notice unless otherwise stated;

'Schedule 5' means Schedule 5 of this Notice unless otherwise stated;

'Schedule 6' means Schedule 6 of this Notice unless otherwise stated;

'Screened Completed Compost' means compost which has undergone the composting process and is mechanically screened to remove organic matter and other materials which do not meet the size requirements of the compost;

'Uncontaminated Stormwater' means stormwater which has not come into contact with materials specified in requirement 3.1 (expect Clean Sand);

'Unprocessed Greenwaste' means Greenwaste which has not undergone pasteurisation, mulching, composting, or any other process;

'µg/L' means micrograms per litre; and

'**μS/cm**' means microSiemens per centimetre.