

Permit

Environmental Protection Act 1994

Environmental authority EPPR00907613

This environmental authority is issued by the administering authority under Chapter 5 of the Environmental Protection Act 1994.

Environmental authority number: EPPR00907613

This environmental authority takes effect on the day of the approval.

The anniversary day of this environmental authority remains 21 May. Payment of the annual fee will be due each year on this day.

Environmental authority holder

Name	Registered address
Teys Australia Biloela Pty Ltd (ACN 009 669 265)	Building 3, 2728 Logan Road, EIGHT MILE PLAINS, QLD, 4108

Environmentally relevant activity and location details

Environmentally relevant activity	Location
ERA 63 - Sewage Treatment 1: Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of (b-i) more than 100 but not more than 1500EP if treated effluent is discharged from the works to an infiltration trench or through an irrigation scheme	Jambin Dakenba Rd DAKENBA QLD Lot 36 on RN1038
ERA 25 - Meat Processing 2: Processing, including rendering, in a year, the following quantity of meat or meat products (c) more than 50,000t	
ERA 53 - Organic material processing Processing more than 200t of organic material in a year - (a) by composting the organic material	

Additional information for applicants

Environmentally relevant activities

The description of any environmentally relevant activity (ERA) for which an environmental authority (EA) is issued is a restatement of the ERA as defined by legislation at the time the EA is issued. Where there is any inconsistency between that description of an ERA and the conditions stated by an EA as to the scale, intensity or manner of carrying out an ERA, the conditions prevail to the extent of the inconsistency.

An EA authorises the carrying out of an ERA and does not authorise any environmental harm unless a condition stated by the EA specifically authorises environmental harm.

A person carrying out an ERA must also be a registered suitable operator under the *Environmental Protection Act 1994* (EP Act).

Contaminated land

It is a requirement of the EP Act that an owner or occupier of contaminated land give written notice to the administering authority if they become aware of the following:

- a) the happening of an event involving a hazardous contaminant on the contaminated land (notice must be given within 24 hours); or
- b) a change in the condition of the contaminated land (notice must be given within 24 hours); or
- c) a notifiable activity (as defined in Schedule 3) having been carried out, or is being carried out, on the contaminated land (notice must be given within 20 business days)

that is causing, or is reasonably likely to cause, serious or material environmental harm.

For further information, including the form for giving written notice, refer to the Queensland Government website www.qld.gov.au, using the search term 'duty to notify'.

Take effect

Please note that, in accordance with section 200 of the EP Act, an EA has effect:

- a) if the authority is for a prescribed ERA and it states that it takes effect on the day nominated by the holder of the authority in a written notice given to the administering authority-on the nominated day; or
- b) if the authority states a day or an event for it to take effect-on the stated day or when the stated event happens; or
- c) otherwise- one the day the authority is issued.

However, if the EA is authorising an activity that requires an additional authorisation (a relevant tenure for a resource activity, a development permit under the *Planning Act 2016* or an SDA Approval under the *State Development and Public Works Organisation Act 1971*), this EA will not take effect until the additional authorisation has taken effect.

If this EA takes effect when the additional authorisation takes effect, you must provide the administering authority written notice within 5 business days of receiving notification of the related additional authorisation taking effect.

If you have incorrectly claimed that an additional authorisation is not required, carrying out the ERA without the additional authorisation is not legal and could result in your prosecution for providing false or misleading information or operating without a valid environmental authority.



Signature

Tim Brain
Department of Environment and Science
Delegate of the administering authority
Environmental Protection Act 1994

18 August 2023

Date

Enquiries:
Utilities and Government Organisations
Assessment
BRISBANE QLD 4001
Phone: 1300130372
Email: palm@des.qld.gov.au

Obligations under the *Environmental Protection Act 1994*

In addition to the requirements found in the conditions of this environmental authority, the holder must also meet their obligations under the EP Act, and the regulations made under the EP Act. For example, the holder must comply with the following provisions of the Act:

- general environmental duty (section 319)
- duty to notify environmental harm (section 320-320G)
- offence of causing serious or material environmental harm (sections 437-439)
- offence of causing environmental nuisance (section 440)
- offence of depositing prescribed water contaminants in waters and related matters (section 440ZG)
- offence to place contaminant where environmental harm or nuisance may be caused (section 443)

Other permits required

This permit only provides an approval under the *Environmental Protection Act 1994*. In order to lawfully operate you may also require permits / approvals from your local government authority, other business units within the department and other State Government agencies prior to commencing any activity at the site.

Development Approval

This permit is not a development approval under the *Planning Act 2016*. The conditions of this environmental authority are separate, and in addition to, any conditions that may be on the development approval. If a copy of this environmental authority is attached to a development approval, it is for information only, and may not be current. Please contact the Department of Environment and Science to ensure that you have the most current version of the environmental authority relating to this site.

Conditions of environmental authority

PART 1 – Conditions relevant to all ERAs

Relevant activities:

ERA 63 - Sewage Treatment 1: Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of (b-i) more than 100 but not more than 1500EP if treated effluent is discharged from the works to an infiltration trench or through an irrigation scheme

ERA 25 - Meat Processing 2: Processing, including rendering, in a year, the following quantity of meat or meat products (c) more than 50,000t

ERA 53 - Organic material processing. Processing more than 200t of organic material in a year - (a) by composting the organic material

The environmentally relevant activities conducted at the location described above must be conducted in accordance with the following conditions of approval.

Agency interest: General	
Condition number	Condition
1 - A1	Activities conducted under this environmental authority must be conducted in accordance with the following: (a) the daily average of treated sewage effluent released from the sewage treatment plant to the woodlot area as shown in <i>Appendix 1 — Approved Plans</i> must be calculated¹ and must not exceed 26 kL/day; and (b) the daily average volume of treated process wastewater released to the irrigation area must be calculated² and must not exceed 1.27 ML/day. ¹ The daily average of treated effluent must be calculated between two consecutive anniversary dates. ² The daily average of treated process wastewater must be calculated between two consecutive anniversary dates.
1 - A2	All information and records required by the conditions of this environmental authority must be kept for a minimum of five years with the exception of environmental monitoring results, which must be kept until surrender of this environmental authority. All information and records required by the conditions of this environmental authority must be provided to the administering authority upon request and in the format requested.
1 - A3	All reasonable and practicable measures must be taken to prevent or minimise any environmental harm caused, or likely to be caused by the activities.
1 - A4	Other than as permitted by this environmental authority, the release of a contaminant into the environment must not occur.
1 - A5	Chemicals and fuels in containers of greater than 15 litres must be stored within a secondary containment system.

1 - A6	Written procedures must be documented for the activity that: (a) identify all potential risks to the environment from the activity, including during and outside routine operations, during closure and in an emergency (e.g. fire); and (b) identify measures to prevent or minimise the potential for environmental harm for each of the potential risks identified; and (c) establish an inspection and maintenance program for plant and equipment including calibration and servicing that is in accordance with manufacturer's instructions; and (d) ensure that staff are trained in and aware of their obligations under the <i>Environmental Protection Act 1994</i> ; and (e) establish processes to review environmental risks, incidents, performance, and complaints.
1 - A7	Written procedures required by condition A6 must be: (a) Implemented; and (b) Reviewed at least biennially; and (c) Provided to the administering authority upon request at the time and in the format requested.
1 - A8	Plant and equipment necessary to comply with the conditions of this environmental authority must be installed, operated, and maintained: (a) in a proper and effective manner; and (b) in accordance with any written procedures developed under condition 1 A6 for the plant and equipment.
1 - A9	Records must be kept of all persons trained under condition 1 A6(d) and the date they received the training.
1 - A7	Any contravention of a condition of this environmental authority must be reported to the administering authority as soon as practicable, but no more than 24 hours of becoming aware of the contravention.
1 - A8	An appropriately qualified person(s) must monitor, record, and interpret all parameters that are required to be monitored by this environmental authority and in the manner specified by this environmental authority.
1 - A9	All analyses required under this environmental authority must be carried out by a laboratory that has National Association of Testing Authorities (NATA) certification, or an equivalent certification, for such analyses. The only exception to this condition is for <i>in situ</i> monitoring of pH, DO, temperature and electrical conductivity.
1 - A10	The following details must be recorded for all environmental complaints received: (a) date and time the complaint was received; and (b) if authorised by the person making the complaint, their name and contact details; and (c) nature and details of the complaint including date and time the complaint was received; and (d) investigations carried out in response to the complaint as required by 1-A11; and (e) the results of investigations; and (f) measures taken under 1-A12.

1 - A11	An investigation must be undertaken into all environmental complaints within 5 business days of receiving the complaint, or a longer period agreed to in writing by the administering authority to determine: (a) the potential circumstances and actions on site that may have contributed to the basis of the complaint; and (b) reasonable measures that could be implemented to address the basis of the complaint.
1 - A12	Measures identified under 1-A11(a) must be taken within: (a) four weeks of the investigation required by 1- A11 being finalised; or (b) a longer period agreed to in writing by the administering authority.
1 - A13	When required by the administering authority, monitoring must be undertaken in the manner prescribed by the administering authority to investigate a complaint of environmental nuisance arising from the activity. The monitoring results must be provided within 10 business days to the administering authority upon its request.
1 - A14	A weather station must be installed, operated, calibrated, and maintained on site which continuously and electronically records: (a) rainfall (mm/day); and (b) wind speed (km/hour); and (c) wind direction (cardinal direction, e.g., north-easterly); and (d) air temperature (degrees Celsius); and (e) relative humidity (%).
1 - A15	The weather station required by condition 1- A14 must be installed and operated in compliance with the Australian/New Zealand Standards: (a) AS/NZS 3580.1.1:2016 (Methods for sampling and analysis of ambient air – Guide to siting air monitoring equipment) or, if a more recent version or replacement of that standard has been released, in accordance with the more recent or replaced standard; and (b) AS 3580.14:2014 (Methods for sampling and analysis of ambient air – Meteorological monitoring for ambient air) or, if a more recent version or replacement of that standard has been released, in accordance with the more recent or replaced standard.
1 - A16	A visible and legible sign must be located on the front fence or adjacent to the entrance of the site stating: (a) words to the effect 'To contact the operator of this facility please refer all communication via the following contact details;' and (b) the name of the environmental authority holder; and (c) business hours and after-hours telephone number; and (d) an email address for the environmental authority holder.
Agency interest: Noise	
Condition number	Condition
1 - N1	Noise generated by the activity must not cause environmental nuisance to any sensitive place or commercial place.

Agency interest: Air																													
Condition number	Condition																												
1 - B1	Odours or airborne contaminants from the activity must not cause environmental nuisance to any sensitive place or commercial place.																												
1 - B2	Release of dust particulates exceeding the following levels, when measured at any nuisance sensitive place, is considered as an environmental nuisance: (a) dust deposition of 4.0 grams per square metre per month, when measured in accordance with Australian Standard AS 3580.10.1 (or more recent edition); or (b) a concentration of particulate matter with an aerodynamic diameter of less than 10 micrometres (µm) (PM₁₀) suspended in the atmosphere of 50 micrograms per cubic metre over a 24-hour averaging time, at a nuisance sensitive place downwind of the site, when monitored in accordance with <i>Australian Standard AS 3580.9.6</i> (or more recent editions); or any other method approved by the administering authority.																												
1 - B3	Contaminants must only be released to air from the point source(s) in accordance with <i>Table 1 - Point source air release limits</i> and the associated requirements. Table 1 - Point source air release limits — minimum release height and minimum efflux velocity. <table border="1"> <thead> <tr> <th>Release point</th><th>Source description</th><th>Location</th><th>Minimum release height (metres)</th><th>Minimum efflux velocity (metres/second)</th></tr> </thead> <tbody> <tr> <td>A1</td><td>Coal fired boiler stack</td><td>Latitude 2421.672' S Longitude 15029.803' E</td><td>20</td><td>8</td></tr> <tr> <td>LP2</td><td>LPG fired boiler stack</td><td></td><td>9</td><td>3</td></tr> <tr> <td>LP3</td><td>LPG fired boiler stack</td><td></td><td>9</td><td>3</td></tr> <tr> <td>LP4</td><td>LPG fired boiler stack</td><td></td><td>9</td><td>9</td></tr> </tbody> </table> Associated requirements (a) Monitoring must be taken when emissions are expected to be representative of actual operating conditions for the sample frequency period; and (b) Air monitoring must be in accordance with the current edition of the administering authority's Air Quality Sampling Manual.				Release point	Source description	Location	Minimum release height (metres)	Minimum efflux velocity (metres/second)	A1	Coal fired boiler stack	Latitude 2421.672' S Longitude 15029.803' E	20	8	LP2	LPG fired boiler stack		9	3	LP3	LPG fired boiler stack		9	3	LP4	LPG fired boiler stack		9	9
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1 - B4	The darkness of smoke emitted from release points described in condition B3 — Table 1 — Point source air release limits must be measured and recorded weekly when the activity is operating normally and must not exceed Ringelmann 1 in accordance with <i>Australian Standard AS 3543-1989. Use of standard Ringelmann and Australian Standard miniature smoke charts</i> (or more recent editions).																												
1 - B5	The sulphur content of any fuel burned in the industrial fuel burning equipment is not to exceed 3 per cent.																												
1 - B6	You must ensure that the quantity and sulphur content of any fuel burned in the industrial fuel burning equipment is monitored and recorded annually.																												

Agency interest: Land																																																																																									
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1 - E1	Other than as permitted within this environmental authority, contaminants must not be released to land.																																																																																								
1 - E2	The only contaminants to be released to land are treated sewage effluent from the sewage treatment works and treated process wastewater from the wastewater treatment works to the locations described on the areas shown in <i>Appendix 1 — Approved Plan</i> and in accordance with the release limits specified in <i>Table 2 - Treated sewage effluent release limits to irrigation area</i> and <i>Table 3 - Treated process wastewater effluent release limits to irrigation area</i> and the associated monitoring requirements. Table 2 - Treated sewage effluent release limits to irrigation area. <table border="1"> <thead> <tr> <th>Water quality characteristic (units)</th><th>Monitoring location</th><th>Minimum</th><th>Mean</th><th>Maximum</th><th>Monitoring frequency</th></tr> </thead> <tbody> <tr> <td>Electronic conductivity (µS/cm)</td><td>Final holding tank</td><td></td><td></td><td></td><td>Quarterly</td></tr> <tr> <td>Total Dissolved Solids (Load in kg/ quarter)</td><td>Final holding tank</td><td></td><td>3,261</td><td></td><td>Quarterly</td></tr> <tr> <td>pH</td><td>Final holding tank</td><td>6.5</td><td></td><td>8.5</td><td>Quarterly</td></tr> <tr> <td>Total Suspended Solids (mg/L)</td><td>Final holding tank</td><td></td><td></td><td></td><td>Quarterly</td></tr> <tr> <td>Discharge volume (ML)</td><td>Final holding tank</td><td></td><td></td><td></td><td>During a release</td></tr> <tr> <td>Total Nitrogen (mg/L)</td><td>Final holding tank</td><td></td><td></td><td></td><td>Quarterly</td></tr> <tr> <td>Total Nitrogen (Load in kg/ quarter)</td><td>Final holding tank</td><td></td><td>204</td><td></td><td>Quarterly</td></tr> <tr> <td>Total Phosphorus (mg/L)</td><td>Final holding tank</td><td></td><td></td><td></td><td>Quarterly</td></tr> <tr> <td>Total Phosphorus (Load in kg/ quarter)</td><td>Final holding tank</td><td></td><td>34</td><td></td><td>Quarterly</td></tr> <tr> <td>Ammonia as Nitrogen (mg/L)</td><td>Final holding tank</td><td></td><td></td><td></td><td>Quarterly</td></tr> <tr> <td>Total Chlorine (mg/L)</td><td>Final holding tank</td><td></td><td></td><td></td><td>Quarterly</td></tr> <tr> <td>Sodium Adsorption Ratio</td><td>Final holding tank</td><td></td><td></td><td>8</td><td>Quarterly</td></tr> <tr> <td>E.coli (cfu/100mL)</td><td>Final holding tank</td><td></td><td></td><td></td><td>Quarterly</td></tr> </tbody> </table> Associated requirements: (a) Monitoring must be taken when emissions are expected to be representative of actual operating conditions for the sample frequency period; and					Water quality characteristic (units)	Monitoring location	Minimum	Mean	Maximum	Monitoring frequency	Electronic conductivity (µS/cm)	Final holding tank				Quarterly	Total Dissolved Solids (Load in kg/ quarter)	Final holding tank		3,261		Quarterly	pH	Final holding tank	6.5		8.5	Quarterly	Total Suspended Solids (mg/L)	Final holding tank				Quarterly	Discharge volume (ML)	Final holding tank				During a release	Total Nitrogen (mg/L)	Final holding tank				Quarterly	Total Nitrogen (Load in kg/ quarter)	Final holding tank		204		Quarterly	Total Phosphorus (mg/L)	Final holding tank				Quarterly	Total Phosphorus (Load in kg/ quarter)	Final holding tank		34		Quarterly	Ammonia as Nitrogen (mg/L)	Final holding tank				Quarterly	Total Chlorine (mg/L)	Final holding tank				Quarterly	Sodium Adsorption Ratio	Final holding tank			8	Quarterly	E.coli (cfu/100mL)	Final holding tank				Quarterly
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- (b) A total irrigation area of at least 3 ha as outlined in *Appendix 1 - Approved plan* must be provided; and
- (c) Releases of treated effluent must not be outside of the irrigation areas indicated on the attached site map in *Appendix 1 - Approved Plan*; and
- (d) Monitoring must be in accordance with the administering authority's Water Quality Sampling Manual and any additional relevant and all monitoring devices must be effectively calibrated and maintained; and
- (e) Monitoring must be undertaken when the treated effluent is being irrigated, unless irrigation has ceased for longer than the relevant parameters specified minimum frequency (e.g. if TSS was only required to be monitored quarterly, then a TSS sample would not be required after the first 3 months following cessation of the release); and
- (f) Volume of release must be calculated based on the total irrigation area when irrigating the maximum volume or the worked out for the area of application based on the actual volume irrigated; and
- (g) Mean calculations required by condition E2 must be the arithmetic mean taken as a Long-Term Rolling Limit, meaning a limit applied to consecutive samples taken over a 12-month period (on a rolling basis for limit calculations) where consecutive samples are taken at the minimum frequency specified in *Table 2 - Treated sewage effluent release limits to irrigation area*.

Table 3 - Treated process wastewater effluent release limits to irrigation area.

Water quality characteristic (units)	Monitoring location	Minimum	Annual average	Maximum	Monitoring frequency
Electronic conductivity ($\mu\text{S}/\text{cm}$)	Discharge pumps from the irrigation pond		4000		Quarterly
pH	Discharge pumps from the irrigation pond	6.5		8.5	Quarterly
Total Suspended Solids (mg/L)	Discharge pumps from the irrigation pond			150	Quarterly
Discharge volume (ML)	Discharge pumps from the irrigation pond				During a release
Total Nitrogen (mg/L)	Discharge pumps from the irrigation pond		140		Quarterly
Total Phosphorus (mg/L)	Discharge pumps from the irrigation pond		16		Quarterly
Ammonia (mg/L)	Discharge pumps from the irrigation pond				Quarterly
Nitrate (mg/L)	Discharge pumps from the irrigation pond				Quarterly

	Sulphate (mg/L)	Discharge pumps from the irrigation pond				Quarterly	
	Oil and grease (mg/L)	Discharge pumps from the irrigation pond			40	Quarterly	
	Total Chlorine (mg/L)	Discharge pumps from the irrigation pond				Quarterly	
	Sodium Adsorption Ratio	Discharge pumps from the irrigation pond			8	Quarterly	
	E.coli (cfu/100mL)	Discharge pumps from the irrigation pond				Quarterly	
	Associated requirements (a) Monitoring must be undertaken when process wastewater is being irrigated, unless irrigation has ceased for longer than the relevant parameters specified minimum frequency (e.g. if TSS was only required to be monitored quarterly, then a TSS sample would not be required after the first 3 months following cessation of the release); and (b) Monitoring must be taken when emissions are expected to be representative of actual operating conditions for the sample frequency period; and (c) Releases of treated effluent must not be outside of the irrigation areas indicated in <i>Appendix 1 — Approved plans</i>; and (d) A total irrigation area of 208 ha as outlined in <i>Appendix 1 - Approved Plan</i> must be provided; and (e) Monitoring must be in accordance with the administering authority's Water Quality Sampling Manual and any additional relevant and all monitoring devices must be effectively calibrated and maintained in accordance with the manufacturers' instructions; and (f) Annual average must be calculated on a rolling 12 monthly basis; and (g) Volume of release must be calculated based on the total irrigation area when irrigating the maximum volume or the worked out for the area of application based on the actual volume irrigated.						
1 - E3	The irrigation of treated process wastewater or sewage effluent to land must not be carried out within 20 metres of any watercourse, within 10 metres of any boundary of the licensed place, or if soil moisture conditions are such that surface run-off or ponding is likely to occur.						
1 - E4	The woodlot irrigation area must have a minimum area of 3 hectares available for irrigation at all times.						
1 - E5	A Soil Impact Monitoring Program (SIMP) must be designed and implemented by appropriately qualified persons to monitor the effects of the activities on land.						
1 - E6	The SIMP required by condition 1-E5, must include at least the following: (a) Soil and sub-soil analysis, including assessment of the soils from representative locations, including type, structure, pH, phosphorus adsorption level and capacity, nutrient status, salinity and sodicity, and cation exchange capacity of the irrigation release areas; and						

	(b) Determination of the quantity and quality of contaminants applied to the soils from the recycled water irrigation; and (c) Periodic re-assessment including modelling of the water, nutrient and salt balances and irrigation rate and return period to ensure sustainable use of the irrigation area; and (d) Reporting of monitoring results and an assessment of the impact of the releases on the irrigation areas.
1 - E7	Treated sewage effluent and treated process water may be removed from the site and used for an alternate purpose, with the written consent of any third party involved.
1 - E8	When weather conditions or soil conditions preclude the release of treated sewage effluent and treated process wastewater to land, treated sewage effluent and treated process wastewater must not be irrigated to land.
Agency interest: Water	
Condition number	Condition
1 - C1	Contaminants must not be released to waters.
1 - C2	The daily volume and flow rate of raw sewage and process wastewater entering each treatment works must be determined by an appropriate method with an accuracy of +/- 5%, for example through the use of a calibrated flow meter and records must be kept of such determinations.
1 - C3	A Groundwater Monitoring Program (GMP) must be designed and implemented by appropriately qualified persons to monitor the effects of the activity on groundwater.
1 - C4	The GMP required by condition 1-C3, must include at least the following requirements: (a) a properly designed and maintained network of groundwater bores bordering the sewage treatment works, wastewater treatment works, irrigation areas, soil conditioning areas and stock burial area; and (b) be designed to be able to determine the impacts of the activities on the groundwater quality in the underlying aquifer(s); and (c) include a sufficient number of monitoring bores that provide the following: i. representative groundwater samples from the aquifers within the impact zone; and ii. background groundwater quality, hydraulically up-gradient that would not be affected by any release of contaminants to groundwater; and iii. the quality of the groundwater down gradient of activity areas with potential to impact groundwater; and iv. provide details of the groundwater bores chosen, including latitude and longitude position noting the geodetic standard used; and v. be able to detect any seepage of contaminants to groundwater from the activity areas; and (d) groundwater samples taken from the monitoring bore must be analysed for the water quality indicators described in <i>Table 4 - Groundwater quality characteristics and reporting trigger values</i> and the associated requirements; and

- (e) groundwater samples taken from the monitoring bores must be representative of the underlying aquifer; and
- (f) groundwater quality must be monitored as often as necessary, but not less frequent than required in *Table 4 - Groundwater quality characteristics and reporting trigger values* and the associated requirements.

Table 4 - Groundwater quality characteristics and reporting trigger values

Water quality characteristic (units)	Trigger values	Monitoring frequency
Electrical conductivity (µS/cm)	To be determined by June 2018	Quarterly until background values are established and trigger values imposed in the E
Standing Water Level (metres)	To be determined by June 2018	Quarterly until background values are established and trigger values imposed in the E
pH	To be determined by June 2018	Quarterly until background values are established and trigger values imposed in the E
Total dissolved salts (mg/L)	To be determined by June 2018	Quarterly until background values are established and trigger values imposed in the E
Total Nitrogen (mg/L)	To be determined by June 2018	Quarterly until background values are established and trigger values imposed in the E
Nitrate (mg/L)	To be determined by June 2018	Quarterly until background values are established and trigger values imposed in the E
Ammonia (mg/L)	To be determined by June 2018	Quarterly until background values are established and trigger values imposed in the E
Total Phosphorus (mg/L)	To be determined by June 2018	Quarterly until background values are established and trigger values imposed in the E
Total Chlorine (mg/L)	To be determined by June 2018	Quarterly until background values are established and trigger values imposed in the E
Sulphate (mg/L)	To be determined by June 2018	Quarterly until background values are established and trigger values imposed in the E
Sodium Adsorption Ratio	To be determined by June 2018	Quarterly until background values are established and trigger values imposed in the E

Associated requirements;

- (a) All groundwater monitoring must be conducted in accordance with the current edition of the administering authority's Monitoring and Sampling Manual. Measurements and recording of standing groundwater levels must be in metres, accurate to 0.1 metre. The elevation of the reference point, relative to Australian Height Datum, for use in any groundwater level measurement must be determined to an accuracy of 0.05 metre; and

	(b) All determinations of the quality of the groundwater must employ analytical practical quantification limits sufficiently low enough to enable comparisons to be made against water quality objectives/limits relevant to the particular water quality characteristic; and (c) Trigger values will be applied following the completion of the background groundwater monitoring program scheduled to be completed in 2018; and (d) Measurement of standing groundwater levels must be undertaken prior to any disturbance by sampling, and must be reported as the depth in metres from the established reference point to the water surface within the bore; and (e) Each groundwater monitoring bore must be fitted with a locked cap at all times other than when sampling is being undertaken.
1 - C5	By June 2018, you must determine and provide to the administering authority, the trigger values for those quality indicators described in condition 1-C4, Table 4 - Groundwater quality characteristics and reporting trigger values of this environmental authority. This determination must be made in accordance with the most recent version of the administering authority's guideline for Deriving local water quality guidelines.
1 - C6	An annual mass load of TN and TP to the irrigation areas described in <i>Appendix 1 — Approved Plans</i> must be calculated on a rolling 12 monthly basis using the following formula and records kept for such determinations: (a) Annual Mass Load TN (kg/ha/yr) = Yearly sum of Release Volume (ML) x Yearly Average TN Concentration (kg/ML)/irrigation area (ha); and (b) Annual Mass Load TP (kg/ha/yr) = Yearly sum of Release Volume (ML) x Yearly Average TP Concentration (kg/ML)/ irrigation area (ha).
Agency interest: Waste	
Condition number	Condition
1 - F1	All waste generated in carrying out the activity must be lawfully reused, recycled, or removed to a facility that can lawfully accept the waste.
1 - F2	Dead stock may be buried on site in a dedicated burial area if: (a) the dedicated area has impermeable soils so as to have no release of contaminants to waters including groundwater; and (b) the full body/ carcass is fully covered immediately after disposal; and (c) a record of date, time, reason for burial, and quantity of bodies are taken; and (d) a downstream groundwater monitoring bore has been installed and is monitored in accordance with condition C4 of this environmental authority; and (e) the location of burial must be at least 30 meters away from any waters, including groundwater extraction.

Part 2 – Conditions relevant to ERA 53(a) Organic Material Processing only	
Condition number	Condition
2- A1	Activities under this section must be conducted in accordance with the following limitations: (a) activities undertaken on site must be conducted within the designated areas for each activity, as specified in Appendix A: Approved Plan; and (b) only the following feedstock (not containing prohibited material) can be used in the composting process: i. abattoir waste; and ii. animal manure; and iii. boiler ash (in accordance with End of Waste Code for Coal Combustion Products ENEW07359717); and iv. saw dust from untreated timber; and v. green waste. (c) a buffer distance of at least 10 metres must be provided between any cadastral boundary and any composting area.
2- A3	All plans required by the conditions of this environmental authority must be: (a) developed and endorsed in writing as being compliant with the conditions of this environmental authority by an appropriately qualified person; and (b) implemented in accordance with the requirements stated within the plan; and (c) in effect at all times during the carrying out of the activity; and (d) re-endorsed in writing as being in compliance with the conditions of this environmental authority by an appropriately qualified person at least biennially; and (e) provided to the administering authority upon request in the time requested.
2- A4	All testing and monitoring required by the conditions of this environmental authority: (a) must be carried out in the manner specified by this environmental authority; and (b) must be carried out on samples that are representative of the material being tested; and (c) must be carried out using monitoring devices that are calibrated and maintained according to the manufacturers' specifications; and (d) must be carried out, interpreted, and recorded by an appropriately qualified person; and (e) for finished compost monitoring required by condition 2-A11, must be carried out in accordance with the test methods listed for the relevant parameters in AS 4454:2012 (Composts, soil conditioners and mulches) or, if a more recent version or replacement of that standard has been released, in accordance with the more recent or replaced standard; and (f) for PFAS monitoring, must: i. use analysis techniques that achieve lowest practicable limits of reporting (LOR <0.5 µg/kg solids; LOR <0.001 µg/L for liquids) and maximise extraction of PFAS from samples; and ii. comply with recommendations in the PFAS National Environmental Management

	Plan (NEMP)³ Version 2.0 or more recent editions adopted by the Queensland Government; and iii. incorporate paired standard and Total Oxidisable Precursor (TOP) Assay analysis to determine PFAS concentrations and must include at least: (A) Perfluoroalkyl carboxylic acids (C₄-C₁₄); and (B) Perfluoroalkyl sulfonic acids (C₄-C₁₀); and (C) Perfluoroalkane sulfonamides (C₈); and (D) Perfluoroalkane sulfonamido acetic acids (FASAAs) (C₈ perfluoro); and (E) N-alkyl perfluoroalkane sulfonamido acetic acids (MeFASAAs, EtFASAAs) (C₈ perfluoro); and (F) n:2 Fluorotelomer sulfonic acids (n= 4, 6, 8 & 10); and iv. incorporate quality assurance checks for Total Oxidisable Precursor (TOP) Assay⁴; and v. give due regard to any advice from the administering authority concerning improvements in analysis techniques for the waste types accepted.
2- A5	A Feedstock Management Plan must be developed for the activity, which includes: (a) methods for characterising all feedstock and determining its odour rating by reference to: i. "Odour Rating" in Schedule 1—Odour: <i>Table 1 – Odour rating of composting feedstock</i>; (b) feedstock storage requirements based on the odour ratings and physical compositions of each type of feedstock; and (c) feedstock processing requirements based on the odour ratings and physical compositions for each type of feedstock; and (d) procedures for the sampling and testing the Carbon to Nitrogen ratio (C:N Ratio) of any feedstock accepted on the site; and (e) procedures to assess whether the feedstock received at the site is suitable for the processing techniques being used; and (f) procedures to assess potential feedstock received at the site to determine whether it is lawfully able to be used as a feedstock, including under the conditions of this environmental authority; and (g) procedures for rejecting unsuitable and/or unlawful feedstock; and procedures for reporting unlawful waste delivery to the administering authority.
2- A6	Feedstock must not be used for the activity unless it is assessed in accordance with the Feedstock Management Plan required by condition 2-A5.

³ The PFAS NEMP is available online on the Australian Government Department of Agriculture, Water and Environment website at <https://www.environment.gov.au/>

⁴ Refer to recommendations in the Australasian Land & Groundwater Association (ALGA) funded TOP Assay reliability study (Ventia 2019). Ventia (2019) Improving Measurement Reliability of the PFAS TOP Assay. Australasian Land and Groundwater Association Report 20 June 2019, 1-96pp

2- A7	The following records must be kept for all feedstock processed and anything which is rejected as feedstock under the Feedstock Management Plan required by condition 2-A5: (a) generator and/or transporter of the feedstock including their contact details; and (b) time and date feedstock was received at the site; and (c) description of feedstock; and (d) weight or volume of feedstock; and (e) feedstock odour rating as assessed under the Feedstock Management Plan required by condition 2-A5; and (f) details of any samples taken (including sample ID, laboratory holding time, storage method and storage location); and (g) measurements, observations, and characterisation results of feedstock; and the name of any person undertaking any measurements, observations, or characterisation of feedstock.
2- A8	A Compost Process Plan must be developed to achieve pasteurisation and minimisation of environmental and nuisance impacts, which includes: (a) composting process parameters for the feedstock and processing techniques being used on site, which includes process parameters for: i. C:N ratio; and ii. porosity or bulk density; and iii. moisture content; and iv. pH; and v. oxygen content; and vi. temperature range; and (b) information to support the appropriateness of the composting process parameters with regard to the feedstock and processing techniques being used on site; and (c) methods and frequencies for monitoring composting material to assess that the composting process parameters are being met; and (d) at a minimum, annual reviews of the effectiveness of the composting process parameters at achieving pasteurisation and minimising odour impacts.
2- A9	Composting material must comply with composting process parameters identified in the Compost Process Plan required by condition 2- A8.
2- A10	The following records must be kept for all monitoring undertaken to assess that the composting process parameters are being met: (a) records of any analysis, measurements or observations of composting material and the name/s of the person/s undertaking the assessment; and (b) records of any samples taken (including sample ID, laboratory holding time, storage method and storage location).

2- A11

All finished compost must be monitored for the quality characteristics and at the frequency listed in Table 5 – Finished Compost Quality Characteristic Limits.

Table 5 – Finished Compost Quality Characteristic Limits

Quality Characteristic	Quality Characteristic Limit	Minimum Monitoring Frequency
pH	≥5.0	One representative composite sample consisting of at least five individual grab samples must be collected before the earlier of the following occurring; (a) 90 days having passed since the mixing of feedstock to commence composting; or (b) 90 days having passed since the previous composite sampling event; or (c) 300 dry solid tonnes (dst) of finished compost being produced.
Electrical conductivity	≤10 (dS/m)	
Arsenic	≤20 (mg/kg)	
Cadmium	≤1 (mg/kg)	
Chromium (total)	≤100 (mg/kg)	
Copper	≤150 (mg/kg)	
Lead	≤150 (mg/kg)	
Mercury	≤1 (mg/kg)	
Nickel	≤60 (mg/kg)	
Selenium	≤5 (mg/kg)	
Zinc	≤300 (mg/kg)	
DDT/DDD/DDE	≤0.5 (mg/kg)	
Aldrin	≤0.02 (mg/kg)	
Dieldrin	≤0.02 (mg/kg)	
Chlordane	≤0.02 (mg/kg)	
Heptachlor	≤0.02 (mg/kg)	
HCB	≤0.02 (mg/kg)	
Lindane	≤0.02 (mg/kg)	
BHC	≤0.02 (mg/kg)	
PCBs	Not detected	
<i>E.coli</i>	<100 (MPN/gram)	
Faecal coliforms	<1000 (MPN/gram)	
<i>Salmonella sp.</i>	Not Detected in 50 grams (dry weight equivalent)	
PFOS	1 (µg/kg)	
PFHxS	1 (µg/kg)	
PFOA	1 (µg/kg)	
Sum of PFBA, PFPeA, PFHxA, PFHpA (above LOR)	1 (µg/kg)	
Sum of all C ₉ to C ₁₄ perfluorocarboxylic acids (above LOR)	1 (µg/kg)	
Sum of all perfluorosulfonamides (above LOR)	1 (µg/kg)	

	Sum of all n:2 Fluorotelomer sulfonic acids (above LOR)	1 (µg/kg)	
	PFAS leachability	To be kept to minimum practicable (µg/L)	
	Glass, metal, rigid plastics	≤0.5 (% dry matter weight/weight)	
	Plastics – light, flexible, film	≤0.05 (% dry matter weight/weight)	
	Viable plant propagules	Not detected	
2- A12	Finished compost must comply with the quality characteristics limits listed in <i>Table 5– Finished Compost Quality Characteristic Limits</i> .		
2- A13	An Odour Management Plan must be developed prior to the activity commencing which includes: (a) identification of all odour sources, and potential odour sources at the site, including odours and potential odours generated from the activity; and (b) a requirement that odour investigations be completed by an appropriately qualified person; and (c) an analysis of routine and non-routine processes and operating conditions that could result in, and potentially result in, odour emissions; and (d) measures to avoid the generation and minimise the impacts of odours; and (e) at a minimum, annual reviews of the effectiveness of the measures.		
2 – A14	An area that has an impervious barrier to subsoil and groundwater must be used when conducting any of the following: (a) receiving, mixing, and storing feedstock; (b) processing and storing composting materials; and (c) collecting and storing leachate or stormwater runoff from disturbed areas.		
2- A15	Where feedstock other than green waste is being accepted, any stormwater which filters through composting piles or stored feedstock must be managed as leachate.		
2- A16	Stormwater and leachate runoff from disturbed areas generated by a storm event up to and including a 24-hour storm event with an average recurrence interval (ARI) of 1 in 25 years (3.92% annual exceedance probability) must be contained onsite and directed to the wastewater treatment system for treatment.		
2- A17	Leachate must be collected and stored in: (a) ponds that maintain aerobic conditions; or (b) an enclosed leachate tank.		

2- A18	Leachate collection and storage must be designed, installed, operated, and maintained by an appropriately qualified person to: (a) prevent ponding of leachate in any area other than the designated leachate storage ponds; and (b) prevent the reintroduction of leachate into composting material; and (c) prevent leachate being released to waters, other than the designated storage ponds; and (d) drain leachate away from composting material; and (e) drain leachate to a collection drain; and (f) ensure the structural integrity of the impervious barrier is maintained.
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Definitions

Key terms and/or phrases used in this document are defined in this section. Applicants should note that where a term is not defined, the definition in the *Environmental Protection Act 1994*, its regulations or environmental protection policies must be used. If a word remains undefined it has its ordinary meaning.

24 hour storm event with an average recurrence interval (ARI) of 1 in 25 years means the maximum rainfall depth from a 24 hour duration precipitation event with an average recurrence interval of once in 25 years (3.92% annual exceedance probability).

Activity / activities means the environmentally relevant activity(s) to which the environmental authority relates.

Administering authority means the Chief Executive administering the *Environmental Protection Act 1994*.

Aerobic conditions is demonstrated by stored leachate having a dissolved oxygen concentration of ≥ 1 mg/L as measured in-situ at a minimum of three different depths (top, middle and bottom) across the entire water column.

Annual exceedance probability means the probability that a given rainfall total accumulated over a given duration will be exceeded in any one year.

Annually means once in every year, separated by as close to practicably possible by 365 consecutive days.

Appropriately qualified person(s) means a person or persons who has professional qualifications, training, skills and experience relevant to the environmental authority requirement and can give authoritative assessment, advice and analysis in relation to the environmental authority requirement using the relevant protocols, standards, methods or literature. Where a requirement relates to odour, the person or persons must have odour assessment qualifications and must be able to demonstrate a calibrated nose or that their sense of smell has not been comprised.

Bulking agent includes wood chips or woody green waste.

Bund means a containment structure made from brick, stone, concrete or other material that is impervious to the material being stored; or a structure to prevent or reduce soil erosion.

C:N ratio means the ratio of elemental carbon (C) to elemental nitrogen (N) by weight in organic material.

Commercial place means a place or part of a place that is used as a workplace, an office, or for conducting business or commercial activities.

Composting material refers to waste or other material received on the site, which is mixed and undergoing a composting process until it becomes finished compost.

Contaminant as defined under section 11 of the *Environmental Protection Act 1994*.

Day(s) means any 24-hour period of a calendar day.

Declared pest species means a pest species listed as restricted matter in Schedule 2 of the *Biosecurity Act 2014*.

Emergency as defined under section 466B of the *Environmental Protection Act 1994*.

Environmental harm as defined under section 14 of the *Environmental Protection Act 1994*.

Environmental nuisance as defined under Chapter 1 of the *Environmental Protection Act 1994*.

Environmental value as defined under Chapter 1 of the *Environmental Protection Act 1994*.

Feedstock means the organic material/s used or intended to be used for organic material processing.

Finished compost means an organic product/s that has undergone controlled aerobic and thermophilic biological transformation through the composting process to achieve pasteurisation.

Generator means a person who sells, or gives away, or otherwise provides, a feedstock.

Groundwater means water that occurs naturally in, or is introduced artificially into, an aquifer.

Impervious barrier means a barrier with a thickness of at least 600 mm with an in-situ permeability (K) of less than 10^{-9} ms^{-1} .

Land as defined in Schedule 4 of the *Environmental Protection Act 1994*.

Leachate means a liquid that has passed through or emerged from, or is likely to have passed through or emerged from, a material stored, processed, or disposed of at the site that contains soluble, suspended or miscible contaminants

Measures have the broadest interpretation and includes plant, equipment, physical objects, monitoring, procedures, actions, directions and competency.

mg/L means milligrams per litre.

Minimise by taking all reasonable and practical measures to minimise the adverse effect having regard to the following matters:

- a) the nature of the harm or potential harm; and
- b) the sensitivity of the receiving environment; and
- c) the current state of technical knowledge for the activity; and
- d) the likelihood of successful application of different measures that might be taken to **minimise** the
- e) adverse effects; and
- f) the financial implications of the different measures as they would relate to the type of activity; and
- g) if the adverse effect is caused by the location of the activity being carrying out, whether it is feasible to carry out the activity at another location.

Noxious means harmful or injurious to health or physical well-being.

Nuisance sensitive place includes the following and includes a place within the curtilage of such a place reasonably used by persons at that place:

- (a) a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or
- (b) a motel, hotel or hostel; or
- (c) a kindergarten, school, university or other educational institution; or
- (d) a medical centre or hospital; or
- (e) a protected area under the *Nature Conservation Act 1992*, the *Marine Parks Act 2004* or a World Heritage Area; or
- (f) a public thoroughfare, park or gardens; or
- (g) for noise, a place defined as a sensitive receptor for the purposes of the *Environmental Protection (Noise) Policy 2019*.

Offensive means causing offence or displeasure; is unreasonably disagreeable to the sense; disgusting, nauseous or repulsive.

Plant and equipment includes:

- (a) plant and equipment used to prevent and/or minimise the likelihood of environmental harm being caused, for example condensers, afterburners, waste water treatment / irrigation systems, treatment/separator systems, save-all, filter presses, screens and aerators, noise abatement measures, including attenuators, acoustic treatments of surfaces, noise dampening measures; and

- (b) devices and structures to contain foreseeable escapes of contaminants and waste, for example bunds, contour drains, irrigation tail-water dams; and
- (c) pipework, ducting and associated structures used for transfer of effluent, gases and vapours; and
- (d) devices and structures used to store, handle, treat and dispose of waste; and
- (e) monitoring equipment and associated alarms, for example high level alarms on tanks, storage temperature sensors on condensers and obscuration meters; and
- (f) backup systems that act in the event of failure of a primary system; and
- (g) fuel burning equipment, for example boilers, ovens, cookers, and afterburners.

Process wastewater means the treated water discharging from the Wastewater Treatment final irrigation pond (following treatment in the anaerobic and aerobic ponds). The Wastewater Treatment System accepts and treats liquid wastewater from all plant processing operations, inclusive of cattle wash, edible and in-edible product processing, and other potentially contaminated sources onsite. It broadly includes the pre-treatment systems at the facility (save-all equipment), anaerobic and aerobic treatment ponds.

Prohibited material includes:

Feedstock Material	Description
(a) <i>Asbestos and asbestos containing materials</i>	
Bilge waters	(b) Sea and fresh water from vessel pump outs.
Biosecurity waste	(a) waste that is goods subject to biosecurity control under the <i>Biosecurity Act 2015</i> (Cwlth); or (c) (b) goods under the <i>Biosecurity Act 2015</i> (Cwlth) that are or were in contact with waste mentioned in paragraph (a).
Dye waste (water based)	(d) By-product from industrial dyeing processes.
Effluent waste and wastewater	(e) Liquid industrial or domestic effluents and waste streams, including contaminated groundwater and stormwater, except those of known origin and composition solely containing organic material as defined in the definition of environmentally relevant activity organic material processing ERA 53.
Filter cake and presses	(f) Any concentrated solid and semi-solid waste streams from water treatment process (e.g. centrifuge, filter press), excluding material that complies with <i>the requirements of End of Waste Code ENEW07503318</i> . ⁵
Filter and ion exchange resin backwash waters	(g) Any backwash and reject water from a filtration (e.g. sand or membrane filter) or ion exchange process, excluding material that complies with <i>the requirements of End of Waste Code ENEW07503318</i> . ^{Error! Bookmark not defined.}
Forecourt water	(h) Run off from service station forecourts.
Hide curing effluent	(i) Effluent and wastes from tanneries including, but not limited to, the various steps involved in preparing animal hide e.g. washing for removal of hair, fat removal, chemical treatment.
Leachate waste	A liquid that has passed through, or emerged from, or is likely to have passed through or emerged from, a landfill or from a non-organic waste or contaminated soil deposit.

⁵ Available online at <https://environment.des.qld.gov.au/>
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Feedstock Material	Description
	<i>Materials containing persistent organic pollutants including polybrominated diphenyl ethers (PDBEs), polychlorinated biphenyls (PCBs), polyfluorinated organic compounds⁶ and polyaromatic Hydrocarbons (PAHs).</i>
	(j) <i>Materials originating from activities or sites associated with PFAS contamination,⁷ except where representative analysis results for the load undertaken in accordance with the PFAS monitoring requirements outlined in condition 2-A11, indicate an absence of PFAS.</i>
	(k) <i>Municipal solid waste (excluding segregated compostable organic waste that does not include another prohibited material under this environmental authority).</i>
Paint and industrial coatings products and wash	(l) Paint and industrial coatings products and water and solvent wash down water containing paint and industrial coatings residues.
Particle board	(m) Any part of an engineered wood panel product, manufactured from wood particles, coated in adhesive resin and pressed together into a finished panel.
Sullage waste (greywater)	(n) Greywater / wastewater from domestic or commercial buildings excluding sewage but including waters drained from showers, sinks and laundries.
Treatment tank sludges and residues	(o) Any treatment tank sludge or residue, excluding sludges and residues containing only plant or animal based organic matter or material that complies with the requirements of End of Waste Code ENEW07503318. Error! Bookmark not defined.
Treated timber waste	(p) Any treated timber waste that does not meet the requirements of End of Waste Code ENEW07607119. Error! Bookmark not defined.
	(q) <i>Waste containing restricted stimulation fluids</i>
	(r) <i>Waste known to be contaminated with glass, metal, rubber and coatings that cannot be eliminated through processing</i>
	(s) <i>Waste treated by immobilisation or fixation</i>
Water based inks	(t) Liquid wastes from ink use or manufacture.
Water and solvent based paints and industrial coatings	(u) Liquid waste paint, including where undiluted.

⁵ Available online at <https://environment.des.qld.gov.au/>

Quarterly means undertaken once in each quarter of a year, and separated by as close to practicably possible by three (3) consecutive calendar months.

Records are documents made or issued in respect of this environmental authority, including contravention notifications, written procedures, analysis results, plans, monitoring reports and monitoring programs required under a condition of this authority.

⁶ Materials containing per and poly-fluoroalkyl substances (PFAS) are considered separately

⁷ Operators should refer to Appendix B of the PFAS NEMP for details of activities associated with PFAS contamination. The PFAS NEMP is available online on the Australian Government Department of Agriculture, Water and Environment website at <https://www.environment.gov.au/>

Release of a contaminant into the environment or release or released means to:

- (a) deposit, discharge, emit or disturb the contaminant; or
- (b) cause or allow the contaminant to be deposited, discharged, emitted or disturbed; or
- (c) fail to prevent the contaminant from being deposited, discharged emitted or disturbed; or
- (d) allow the contaminant to escape; or
- (e) fail to prevent the contaminant from escaping.

Registered Suitable Operator means a person whose name and address is entered in the register of suitable operators under section 318(1)(b) in the *Environmental Protection Act 1994*.

Restricted stimulation fluids as defined in section 206 of the *Environmental Protection Act 1994*.

Secondary containment system means a system designed, installed and operated to prevent any release of contaminants from the system, or containers within the system, to land, groundwater, or surface waters.

Sensitive place includes any of the following

- (v) a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or
- (w) a motel, hotel or hostel; or
- (x) a kindergarten, school, university or other educational institution; or
- (y) a medical centre or hospital; or
- (z) a protected area under the *Nature Conservation Act 1992*, the *Marine Parks Act 2004* or a World Heritage Area; or
- (aa) a public thoroughfare, park or garden for noise, a place defined as a sensitive receptor for the purposes of the Environmental Protection (Noise) Policy 2019; or
- (bb) for noise, a place defined as a sensitive receptor for the purposes of the Environmental Protection (Noise) Policy 2019; or
- (cc) the area within the curtilage of any of the above places.

Sewage effluent means the treated water discharging from the site sewage treatment works. The sewage treatment works accepts and treats liquid waste water from domestic ablutions, showers and toilets, utilised by staff at the facility only. It does not accept or treat water from the processing activities onsite.

Site means the same as authorised place.

Stable condition for the purposes of this document means the land is safe and structurally stable and there is no environmental harm being caused by anything on or in the land.

Stabilised biosolids means biosolids processed to reduce or eliminate the potential for putrefaction and which, as a result, reduces pathogens, vector attraction and offensive odours.

Total Nitrogen (TN) means the sum of Organic Nitrogen, Ammonia Nitrogen, Nitrite plus Nitrate Nitrogen, expressed as **mg/L** as Nitrogen. This includes both the inorganic and organic fraction of nitrogen.

Total Phosphorus (TP) means the sum of the reactive phosphorus, acid-hydrolysable phosphorus and organic phosphorus, as **mg/L** of Phosphorus. This includes both the inorganic and organic fraction of phosphorus.

Transporter means a person who transports feedstock.

Vector means an insect or other organism transmitting germs or other agents of disease.

Wastewater means aqueous waste, and includes contaminated stormwater.

Wastewater treatment includes a sewage treatment plant, advanced waste water treatment plant, water reclamation plant, industrial waste water treatment system and any other plant whose primary function is to treat waste water.

Waters includes river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, unconfined water natural or artificial watercourse, bed and bank of any waters, dams, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off, and groundwater and any part thereof.

WaTERS is the Water Tracking and Electronic Reporting System database formally known as the Point Source Database.

“Witch’s hat” odour sampling method means an odour assessment and measurement technique using a hollow cone-shaped device where:

- the base of the device (large diameter) is placed on the surface of the odour source;
- the odour is funnelled through the device and out the top of the device (small diameter); and
- odour samples are collected at the top of the device (small diameter).

You means the holder of the environmental authority, or anyone acting under the environmental authority.

Schedule 1—Odour rating of composting feedstock

Table 1 – Odour rating of composting feedstock

Feedstock	Examples	Odour Rating
Abattoir waste	Meat processing leftovers, bone material, blood, tallow waste, abattoir waste including animal effluent and residues from meat processing, including abattoir effluent, liquid animal wastes (blood) and sludge	Very high
	Paunch material	High
Animal manure	Horse manure, chicken manure, cow manure, livestock manure, or any manure produced by animals, wastewater from holding yards.	High
Animal waste and animal processing waste	Any dead animals or part/s of dead animals, remains of animals or part/s of remains of animals (e.g. chickens from poultry farms), egg waste, milk waste, mixtures of animal manure and animal bedding organics	Very High
Bark, lawn clippings, leaves, mulch, pruning waste, sawdust, shavings, woodchip and other waste from forest products	Cane and sorghum residues including bagasse, forest mulches, cypress chip, green waste, mill mud ⁸ , pine bark, sawmill residues non-treated (including sawdust, bark, wood chip, shavings etc.), tub ground mulch (from land clearing and forestry waste), peat, seed hulls/husks, straw, and other natural fibrous organics, wood chips (forestry waste and land clearing, household maintenance), wood waste (including untreated pallets, offcuts, boards, stumps and logs); worm castings suitable for unrestricted use	Low
Biosolids	Biosolids that are not stabilised biosolids	Very high
	Stabilised biosolids	Medium
Cardboard and paper waste	Paper mulch	Low
	Paper pulp effluent, paper sludge dewatered	Medium
Compostable polylactic acid (PLA) plastics	Compostable plastics produced in accordance with: (a) AS 4736:2006 (Biodegradable plastics) or the most recent or replaced version of that standard or (b) AS 5810:2010 (Biodegradable plastics - Biodegradable plastics suitable for home composting) or the most recent or replaced version of that standard.	Low
A substance used for manufacturing fertiliser for agricultural, horticultural or garden use	Ammonium Nitrate, dewatered fertiliser sludge	High
	Fertiliser water and fertiliser washings, stormwater from fertiliser manufacturing plants containing fertiliser wash water	Medium

⁸ That meets the Resource quality criteria for the approved use in the Sugar Mill By-Products End of Waste Code (ENEW07359817)

Feedstock	Examples	Odour Rating
Fish processing waste	Fish bones and other fish remains/leftovers, wastewater from fish processing	Very high
Food and food processing waste	Expired/past used by date non-protein based food from supermarkets, expired beer, vegetable oil wastes and starches, vegetable waste, yeast waste, food processing effluent (wastewater) and solids (including sludges) from non-protein based food	Medium
	Food processing effluent (wastewater) and solids (including sludges) from protein based food	Very high
	Food organics, expired/past used by date protein based food from supermarkets, brewery and distillery effluent and waste	High
	Expired soft drinks, molasses waste, grain waste (hulls / waste grains), starch water waste, sugar and sugar solutions	Low
Grease trap waste	Oil and grease waste recovered from grease traps	Very high
Green waste	Leaves, grass clippings, prunings, tree branches from household maintenance	Low
Inorganic additives with beneficial properties	Bentonite	None
	Crusher dust	None
	Drilling muds (non-CSG and no additives)	None
	Gypsum	Medium
	Lime and lime slurry (inert)	None
Mushroom compost and mushroom growing substrate		Medium
Poultry processing waste	Feathers, meal and bone leftovers, egg waste including poultry processing poultry abattoir effluent and sludges	Very high
Soils	Acid sulfate soils and sludge	High
	Clean soil, clean mud, sand	None
Stormwater	Low level organically contaminated stormwaters or groundwaters (tested)	Low
Wood waste from untreated timber	Untreated pallets, offcuts, boards, stumps and logs, sawdust, shavings, timber offcuts, crates, wood packaging	Low

Appendix 1 – Approved Plans

