Queensland Government

SARA reference: 1911-14304 SRA
Council reference: 3827/2019/CA

11 February 2022

Chief Executive Officer
Ipswich City Council
PO Box 1559
Ipswich Qld 4305
development@ipswich.qld.gov.au

Dear Sir/Madam

SARA response—7006 Unnamed Road, Swanbank; Centenary Motorway, Swanbank

(Referral agency response given under section 56 of the *Planning Act 2016*)

The development application described below was confirmed as properly referred by the State Assessment and Referral Agency on 11 December 2019.

Response

Outcome:	Referral agency response – with conditions.
Date of response:	11 February 2022
Conditions:	The conditions in **Attachment 1** must be attached to any development approval.
Advice:	Advice to the applicant is in **Attachment 2**.
Reasons:	The reasons for the referral agency response are in **Attachment 3**.

Development details

Description:	Development permit	Material Change of Use for Waste Activity (Biogas Facility) and associated Major Utility (Electricity/Gas Generation); Waste Activity (Enclosed Compost Manufacturing and Unenclosed Compost Manufacturing) and Environmentally Relevant Activities (ERA) • Stage 1: Enclosed windrow composting o ERA 54 (1) – Mechanical waste reprocessing, that is operating a facility for receiving and mechanically reprocessing, in a year, more than 5,000t of inert, non-putrescible waste or green waste only. o ERA 53 (a) – Organic material processing consisting of operating a facility for processing by way of composting more than 200t of organic

DA Advisory Team (DAAT)
Level 13, 1 William Street, Brisbane
PO Box 15009 CITY EAST QLD 4002

material in a year by composting the organic material.
    - ERA 33 – Crushing, grinding, milling or screening more than 5,000t of material in a year (finished product screening)
- Stage 2: Anaerobic digester
    - ERA 53 (b) – Organic material processing consisting of operating a facility for processing by way of composting

Reconfiguring a lot for one lot into two lots, one balance lot, new road and access easement.

SARA role:	Referral Agency
SARA trigger:	Schedule 10, Part 5, Division 4, Table 2 (Planning Regulation 2017) – environmental relevant activities (non-devolved environmentally relevant activities Schedule 10, Part 9, Division 4, Subdivision 1, Table 1 (Planning Regulation 2017) – Infrastructure related referral - State transport infrastructure generally Schedule 10, Part 9, Division 4, Subdivision 2, Table 1 and Table 2 (Planning Regulation 2017) – State transport corridors and future State transport corridors: reconfiguring a lot near a State controlled road Schedule 10, Part 9, Division 4, Subdivision 2, Table 2 (Planning Regulation 2017) – State transport corridors and future State transport corridors: reconfiguring a lot that is a future State transport corridor Schedule 10, Part 9, Division 4, Subdivision 2, Table 4 (Planning Regulation 2017) – State transport corridors and future State transport corridors: material change of use of premises near a State corridor or that is a future State transport corridor
SARA reference:	1911-14304 SRA
Assessment Manager:	Ipswich City Council
Street address:	7006 Unnamed Road, Swanbank; Centenary Motorway, Swanbank
Real property description:	Lot 402 on SP283238 Lot 6 on SP196914
Applicant name:	Wood Mulching Industries Pty Ltd c/- Ethos Urban
Applicant contact details:	Level 4, 215 Adelaide Street Brisbane QLD 4000 KGrainger@ethosurban.com
Environmental Authority:	This referral included an application for an environmental authority under section 115 of the *Environmental Protection Act 1994.* Below are the details of the decision: • Approved • Reference: P-EA-100119834 • Effective date: 4 February 2022 • Prescribed environmentally relevant activity (ERA): o ERA 33 – Crushing, grinding, milling or screening more than 5,000t of material in a year (finished product screening) o ERA 53(a) – Organic material processing consisting of operating a facility for processing by way of composting more than 200t of

organic material in a year by composting the organic material
- ERA 53(b) – Organic material processing consisting of operating a facility for processing by way of composting more than 200t of organic material in a year, by anaerobic digestion
- ERA 54-1 – Mechanical waste reprocessing, that is operating a facility for receiving and mechanically reprocessing, in a year, more than 5,000t of inert, non-putrescible waste or green waste only

If you are seeking further information on the environmental authority, the Department of Environment and Science's website includes a register. This can be found at: www.des.qld.gov.au

Representations

An applicant may make representations to a concurrence agency, at any time before the application is decided, about changing a matter in the referral agency response (s.30 Development Assessment Rules) Copies of the relevant provisions are in **Attachment 4**.

A copy of this response has been sent to the applicant for their information.

For further information please contact Rebecca Carpenter, Principal Planner, on 07 3452 7477 or via email DAAT@dsdilgp.qld.gov.au who will be pleased to assist.

Yours sincerely

Steve Conner
Executive Director

cc Wood Mulching Industries Pty Ltd c/- Ethos Urban, KGrainger@ethosurban.com

enc Attachment 1 - Referral agency conditions
Attachment 2 - Advice to the applicant
Attachment 3 - Reasons for referral agency response
Attachment 4 - Representations provisions
Attachment 5 - Approved plans and specifications
Attachment 6 – Signed Environmental Authority

Attachment 1—Referral agency conditions

(Under section 56(1)(b)(i) of the *Planning Act 2016* the following conditions must be attached to any development approval relating to this application) (Copies of the plans and specifications referenced below are found at Attachment 5)

No.	Conditions	Condition timing
Development permit for Material change of use		
The chief executive administering the *Planning Act 2016* nominates the Director-General of Department of Environment and Science to be the enforcement authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following condition(s):		
1.	The development must be carried out generally in accordance with the Proposed site plan, prepared by Ethos Urban, dated 06/09/2021, drawing no A-1.1, issue P4, as amended in red by SARA.	At all times
Development permit for Material change of use		
The chief executive administering the *Planning Act 2016* nominates the Director-General of Department of Transport and Main Roads to be the enforcement authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following condition(s):		
2.	(a) Stormwater management of the development must ensure no worsening or actionable nuisance to the future railway corridor. (b) Any works on the land must not: i. create any new discharge points for stormwater runoff onto the future railway corridor ii. interfere with and/or cause damage to the future railway corridor iii. surcharge any existing culvert or drain on the future railway corridor iv. reduce the quality of stormwater discharge onto the future railway corridor v. impede or interfere with hydraulic conveyance or overland flow paths.	a) and b) at all times
Development permit for Reconfiguring a lot		
The chief executive administering the *Planning Act 2016* nominates the Director-General of Department of Transport and Main Roads to be the enforcement authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following condition(s):		
3.	The development must be carried out generally in accordance with the Proposed Reconfiguration Plan by Ethos Urban Pty Ltd, dated 18/05/2021, drawing reference 7190243 A-1.1, issue P1, as amended in red by SARA.	Prior to submitting the Plan of Survey to the local government for approval.
4.	(a) Stormwater management of the development must ensure no worsening or actionable nuisance to the future railway corridor. (b) Any works on the land must not:	a) and b) at all times

	i. create any new discharge points for stormwater runoff onto the future railway corridor ii. interfere with and/or cause damage to the future railway corridor iii. surcharge any existing culvert or drain on the future railway corridor iv. reduce the quality of stormwater discharge onto the future railway corridor v. impede or interfere with hydraulic conveyance or overland flow paths.	

Attachment 2—Advice to the applicant

General advice	
1.	Terms and phrases used in this document are defined in the *Planning Act 2016* its regulation or the State Development Assessment Provisions (SDAP) v2.6. If a word remains undefined it has its ordinary meaning.
Future Railway Corridor	
2.	The site, namely, balance lot 406, is impacted on by the Ipswich to Springfield future railway corridor. Further information concerning the Ipswich to Springfield Public Transport Corridor Study is available at: https://www.tmr.qld.gov.au/Projects/Name/I/Ipswich-to-Springfield-Public-Transport-Corridor-Study. The future railway corridor alignment is available on the Development Assessment Mapping System of the Department of State Development, Manufacturing, Infrastructure and Planning website (available at: https://planning.dsdmip.qld.gov.au/maps) and is also shown on the attached draft property impact plan prepared by the Queensland Government, dated January 2020.

Attachment 3 — Reasons for referral agency response

(Given under section 56(7) of the *Planning Act 2016*)

The reasons for the department's decision are:

- The development achieves compliance with the applicable performance outcomes of State code 1 and 6 of the SDAP as:
    - the development does not create a safety hazard for users of a state-controlled road, by increasing the likelihood or frequency of fatality or serious injury
    - the development does not compromise the structural integrity of state-controlled roads, road transport infrastructure or road works
    - development does not compromise the state's ability to maintain and operate state-controlled roads

- The development achieves compliance with the applicable performance outcomes of State code 1 of the SDAP as the development does not compromise the state's ability to construct future railways, or significantly increase the cost to construct future railways.

- The development achieves compliance with the applicable performance outcomes of State code 22 of the SDAP as:
    - it is located and designed to avoid or mitigate environmental harm on environmental values of the natural environment, adjacent sensitive land uses and sensitive receptors
    - it avoids impacts on matters of state environmental significance, and where avoidance is not reasonably possible, minimise and mitigate impacts, and provide an offset for significant residual impacts where appropriate.

Material used in the assessment of the application:

- The development application material and submitted plans
- *Planning Act 2016*
- Planning Regulation 2017
- The *State Development Assessment Provisions* (version [2.6]), as published by the department
- The Development Assessment Rules
- SARA DA Mapping system

Attachment 4—Change representation provisions

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Attachment 5—Approved plans and specifications

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Attachment 6—Signed Environmental Authority

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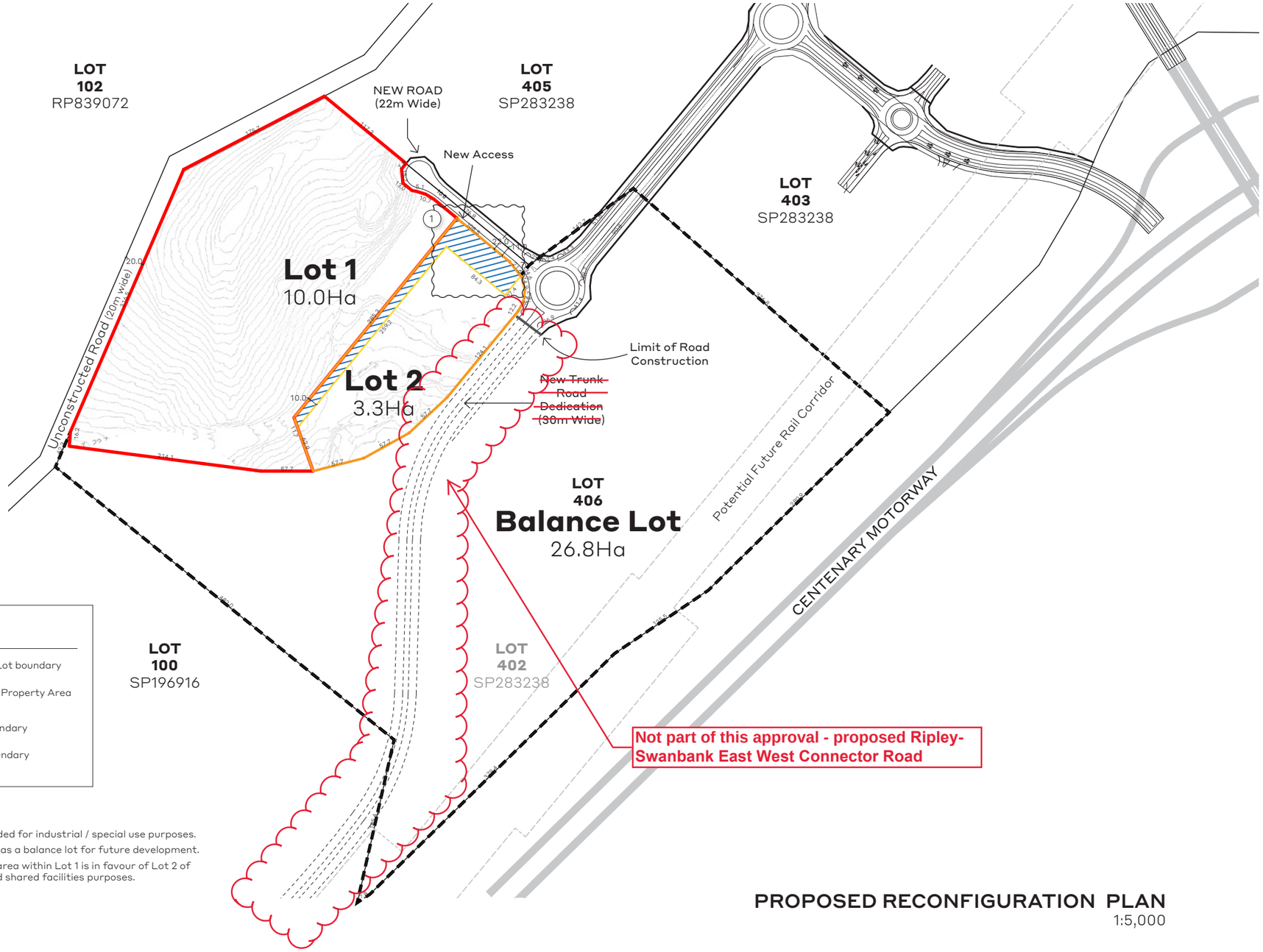
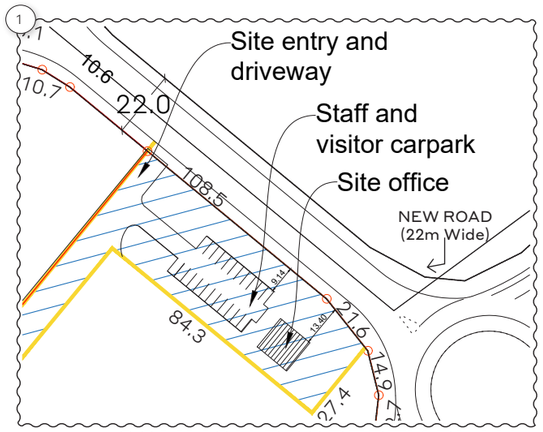
PLANS AND DOCUMENTS referred to in the REFERRAL AGENCY RESPONSE

SARA ref: 1911-14304 SRA

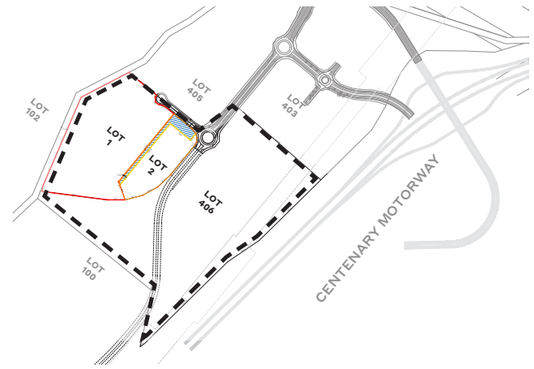
Date: 11 February 2022

Amended in red by SARA on 11 February 2022





COMMON PROPERTY PLAN
1:1,0000



KEY PLAN
1:20,0000

LEGEND

- Balance Lot boundary
- Common Property Area
- Lot 1 Boundary
- Lot 2 Boundary

NOTES

Lots 1 & 2 are intended for industrial / special use purposes.

Lot 406 is intended as a balance lot for future development.

Common property area within Lot 1 is in favour of Lot 2 of access, services and shared facilities purposes.

PROPOSED RECONFIGURATION PLAN
1:5,000

PROPOSED LOTS

Lot Description	Approx. Lot Area	Approx. average lot dimensions
PROPOSED LOT 1 Enclosed composting facility	**10.0 Ha**	Length: 424m Width: 251m
PROPOSED LOT 2 Enclosed biogas facility and common property	**3.3 Ha** (Common property = 5,688 m²)	Length: 301m Width: 117m
BALANCE LOT	**26.8 Ha** (New Road area = 2,180 m²)	Varied
TOTAL SITE AREA (TITLE)	**40.10 Ha**	

DISCLAIMER

This drawing shall only be used for the purpose for which it was commissioned. Unauthorised use of the drawings is prohibited. Do not scale this drawing. Use only figured dimensions. Report any discrepancy to the Architect or Urban Designer for clarification prior to the commencement of any work. Areas and dimensions are subject to survey.

ETHOS URBAN

Ethos Urban Pty. Ltd.
ABN 13 615 087 931 ACN 615 087 931
www.ethosurban.com
L4/215 Adelaide Street, Brisbane
QLD 4000 t +61 7 3852 1822

LEGEND / NOTES

RP Description:	Lot 402 on SP283238
Local Authority:	Ipswich City Council
Contour Interval	1.0m

NOTES
Design subject to Council approvals and detailed design. Areas and dimensions are approximate only and are subject to final survey.

ISSUE	DATE	REVISION	REVISION BY	APPROVED BY
P1	18.05.21	Approval	TB	MS

FOR APPROVAL

PROJECT

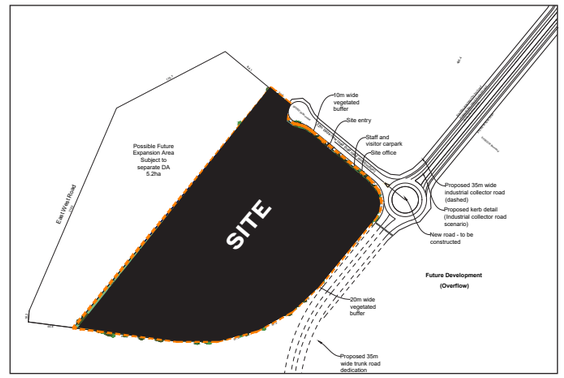
SWANBANK BIOGAS

1:5000 @ A3

DRAWING

PROPOSED RECONFIGURATION PLAN **A-1.1** /P1

JOB NO.	DWG NO.	ISSUE	DATE	DRAWN BY
7190243	A-1.1	P1	18.05.21	MS



KEY PLAN
Not to scale

NOTES	
Subject Lots:	Lot 402 on SP283238
Local Authority:	Ipswich City Council

Design subject to Council approvals and detailed design. Areas and dimensions are approximate only and are subject to final survey.

DEVELOPMENT SUMMARY

Description	Value
TOTAL SITE AREA	13.291Ha
POSSIBLE FUTURE EXPANT-ION AREA (SUBJECT TO SEPA-RATE DA)	5.2 Ha
SITE AREA STAGE 1	7.19Ha
SITE AREA STAGE 2	0.9 Ha
TOTAL CAR PARKING SPACES (PROVIDED)	23 spaces

LEGEND

- Proposed site & stage boundaries
- Existing Boundaries (SP283238)
- Proposed road widening for 35m trunk road

PLANS AND DOCUMENTS referred to in the REFERRAL AGENCY RESPONSE

SARA ref: 1911-14304 SRA

Date: 11 February 2022

Amended in red by SARA on

11 February 2022

DISCLAIMER

This drawing shall only be used for the purpose for which it was commissioned. Unauthorised use of the drawings is prohibited. Do not scale this drawing. Use only figured dimensions. Report any discrepancy to the Urban Designer for clarification prior to the commencement of any work.

ISSUE	DATE	REVISION	REVISION BY	APPROVED BY
P1	07.12.20	Issued for Approval	TB	KG
P2	08.04.21	Issued for Approval	TB	KG
P3	08.05.21	Change of Road Layout	MS	KG
P4	06.09.21	Amended Areas	MS	KG

LEGEND / NOTES

-

-

PRELIMINARY

NOT FOR CONSTRUCTION

ETHOS URBAN

Ethos Urban Pty. Ltd.
ABN 13 615 087 931 ACN 615 087 931
www.ethosurban.com
L4/215 Adelaide Street Brisbane
QLD 4000 t +61 2 3852 1822

PROJECT

Enclosed Biogas / Composting Facility

1:2,500 @ A3

0 10 20 40 100m

DRAWING

Proposed Site Plan **A-1.1 /P4**

PAGE 1 OF 2

JOB NO.	DWG NO.	ISSUE	DATE	DRAWN BY
718803	A-1.1	P4	06.09.21	MS

Permit

Environmental Protection Act 1994

Environmental authority P-EA-100119834

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

Environmental authority number: P-EA-100119834

Environmental authority takes effect on the date that your related development approval 3827/2019/CA takes effect. Within 5 business days of the environmental authority taking effect, the administering authority must be given written notice of the occurrence. Prior to the commencement of the activity, the administering authority must be given written notice of the proposed date of commencement.

The first annual fee is payable within 20 business days of the effective date.

The anniversary date of this environmental authority is the same day each year as the take effect date. The payment of the annual fee will be due each year on this day.

Environmental authority holder

Name	Registered address
Wood Mulching Industries Pty Ltd	1B/13 Brendan Drive, Nerang QLD 4211

Environmentally relevant activity and location details

Environmentally relevant activities	Location
ERA 33 – Crushing, grinding, milling or screening more than 5,000t of material in a year (finished product screening) ERA 53(a) – Organic material processing consisting of operating a facility for processing by way of composting more than 200t of organic material in a year by composting the organic material ERA 53(b) – Organic material processing consisting of operating a facility for processing by way of composting more than 200t of organic material in a year, by anaerobic digestion ERA 54-1 – Mechanical waste reprocessing, that is operating a facility for receiving and mechanically reprocessing, in a year, more than 5,000t of inert, non-putrescible waste or green waste only	7006 Unnamed Road, Swanbank QLD 4306 – Lot 402/SP283238

ABN 46 640 294 485

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:

- the happening of an event involving a hazardous contaminant on the contaminated land (notice must be given within 24 hours); or
- a change in the condition of the contaminated land (notice must be given within 24 hours); or
- 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 - on 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 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.

	4 February 2022
Signature	

Stacey McLennan
Department of Environment and Science
Delegate of the administering authority
Environmental Protection Act 1994

Enquiries:
Waste Assessment
Department of Environment and Science
GPO Box 2454, Brisbane QLD 4001
Phone: 1300 130 372
Email: palm@des.qld.gov.au

Privacy statement

Pursuant to section 540 of the EP Act, the Department is required to maintain a register of certain documents and information authorised under the EP Act. A copy of this document will be kept on the public register. The register is available for inspection by members of the public who are able take extracts, or copies of the documents from the register. Documents that are required to be kept on the register are published in their entirety, unless alteration is required by the EP Act. There is no general discretion allowing the Department to withhold documents or information required to be kept on the public register. For more information on the Department's public register, search 'public register' at www.qld.gov.au. For queries about privacy matters please email privacy@des.qld.gov.au or telephone 13 74 68.

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. For example, this may include permits / approvals with your local Council (for planning approval), the Department of Transport and Main Roads (to access state controlled roads), the Department of Natural Resources, Mines and Energy (to clear vegetation), and the Department of Agriculture and Fisheries (to clear marine plants or to obtain a quarry material allocation).

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

Location: 7006 Unnamed Road, Swanbank QLD 4306 – Lot 402/SP283238

Relevant activities: ERA 33 – Crushing, grinding, milling or screening more than 5,000t of material in a year (finished product screening).

ERA 53(a) – Organic material processing consisting of operating a facility for processing by way of composting more than 200t of organic material in a year by composting the organic material.

ERA 53(b) – Organic material processing consisting of operating a facility for processing by way of composting more than 200t of organic material in a year, by anaerobic digestion.

ERA 54-1 – Mechanical waste reprocessing, that is operating a facility for receiving and mechanically reprocessing, in a year, more than 5,000t of inert, non-putrescible waste or green waste only.

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

Agency Interest: General	
Condition number	**Condition**
G1	Activities under this environmental authority must be conducted in accordance with the following limitations: (a) composting of organic material must only be undertaken in the: i. enclosed system specified in *Appendix A: Site Plan* as Stage 1 Composting Mixing Shed; and ii. enclosed system and in-vessel system specified in *Appendix A: Site Plan* as Stage 2 Biogas Facility; and (b) activities must only be conducted on an impervious barrier within the designated areas for each activity, as specified in *Appendix A: Site Plan*; and (c) green waste must only be stored on a hardstand surface; and (d) only organic waste can be received and used in the activities.
G2	Prohibited material or feedstock containing prohibited material must not be used in composting.
G3	All reasonable and practicable measures must be taken to prevent or minimise environmental harm caused by the activities.
G4	Any contravention of a condition of this environmental authority must be reported to the administering authority as soon as practicable, and within 24 hours of becoming aware of the contravention.

G5	Records of any contravention of this environmental authority must be made including full details of the contravention, all investigations, and any subsequent actions undertaken.
G6	All records required by the conditions of this environmental authority must be provided to the administering authority upon request by the time and in the format requested.
G7	All information and records required by the conditions of this environmental authority must be kept for a minimum of five years.
G8	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) Stay 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 following changes to operational processes or in response to corrective actions; and (e) Provided to the administering authority upon request in the time requested.
G9	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 G28, 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 determining odour emissions from an air filtration system, and for taking odour measurements in the ducts or stack of an air filtration system, must be carried out in accordance with the test methods in AS 4323.1:1995 (Stationary source emissions Selection of sampling positions) or, if a more recent version or replacement of that standard has been released, in accordance with the more recent or replaced standard; and (g) For odour concentration, analysed from air samples from the ducts or stack of an air filtration system in accordance with AS 4323.3:2001 (Stationary source emissions – Part 3: Determination of odour concentration by dynamic olfactometry) or, if a more recent version or replacement of that standard has been released, in accordance with the more recent or replaced standard; and

	(h) 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)1 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) Assay[2]; and v. give due regard to any advice from the administering authority concerning improvements in analysis techniques for the waste types accepted.
G10	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 in-situ monitoring of pH, dissolved oxygen, electrical conductivity, and turbidity.
G11	Chemicals and fuels in containers of greater than 15 litres capacity must be stored within a secondary containment system.
G12	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

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

[2] 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

	(e) Relative humidity (%).
G13	The weather station required by condition G12 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.
G14	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) A business hours and after hours telephone number; and (d) An email address for the environmental authority holder.
G15	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 G16; and (e) The results of investigations; and (f) Measures taken under G17.
G16	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.
G17	Measures identified under G16(b) must be taken within: (a) Four weeks of the investigation required by G16 being finalised; or (b) A longer period agreed to in writing by the administering authority.

G18	Written procedures must be developed and documented upon commencement of 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) Establish a staff training program on obligations under this environmental authority and the *Environmental Protection Act 1994* to be conducted as part of staff inductions and that training be completed at least annually; and (e) Establish processes to review environmental risks, incidents, performance and complaints.
G19	Written procedures required by condition G18 must be: (a) Implemented; and (b) Reviewed at least annually; and (c) Provided to the administering authority upon request at the time and in the format requested.
G20	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 G18 for the plant and equipment
G21	Records must be kept of all persons trained under condition G18(d) and the date they received the training.

G22	A Feedstock Management Plan must be developed prior to the commencement of 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: *Table 1 – Odour rating of composting feedstock*; or ii. If the feedstock is not listed in Schedule 1—Odour: *Table 1 – Odour rating of composting feedstock*, methods to assess the odour potential of the feedstock into one of the following categories taking account of the feedstock's intensity and hedonic tone, including unpleasantness at time of receival and during composting: (A) None (B) Low; (C) Medium; (D) High; (E) Very High. (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 (h) Procedures for reporting unlawful waste delivery to the administering authority.
G23	Feedstock must not be used for the activity unless it is assessed in accordance with the Feedstock Management Plan required by condition G22.
G24	The following records must be kept for all feedstock received and anything which is rejected as feedstock under the Feedstock Management Plan required by condition G22: (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 G22; 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 (h) The name of any person undertaking any measurements, observations or characterisation of feedstock.
G25	A Compost Process Plan must be developed, which includes: (a) Composting process techniques based on feedstock and composting material parameters that includes: 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 and processing techniques being used on site based on feedstock sample measurements of C:N ratio and pH; 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.
G26	Composting material must comply with composting process parameters identified in the Compost Process Plan required by condition G25.
G27	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).

G28

All finished compost must be monitored for the quality characteristics and at the frequency listed in *Table 2 – Finished Compost Quality Characteristic Limits*.

Table 2 – Finished Compost Quality Characteristic Limits

Quality Characteristic	Quality Characteristic Limit	Minimum Monitoring Frequency
pH	≥5.0	One composite sample consisting of at least five individual grab samples must be collected before the earlier of the following occurring (measured from when the most recent composite sample was taken); (a) 90 days having passed; or (b) 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	
E. coli	<100 (MPN/gram)	
Faecal coliforms	<1000 (MPN/gram)	
Salmonella sp.	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 C9 to C14 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	

G29	Finished compost must comply with the quality characteristics limits listed in *Table 2– Composting Material Quality Characteristic Limits*.
G30	Prior to the Stage 2 Biogas Facility being commissioned, feedstock with an odour rating of "high" and/or "very high" as listed in column "Odour Rating" in Schedule 1—Odour: *Table 1 – Odour rating of composting feedstocks* must be: (a) Mixed with a bulking agent or high carbon material as soon as practicable but at least within 6 hours of receipt; and (b) Processed for a minimum of 6 weeks or until pasteurisation and stabilisation is completed.
G31	While feedstock is undergoing processing in accordance with G30(b), with the exception of clean water, mixing or addition of any waste to the windrows is prohibited.
Agency Interest: Air	
A1	Other than as permitted within this environmental authority, odours or airborne contaminants must not cause environmental nuisance to any sensitive or commercial place.
A2	The flare depicted in Appendix B must be designed to meet the standards as outlined by the United States Environmental Protection Agency Code of Federal Regulations 40 CFR 60.18 and 40 CFR 63.11 and operated to meet the following conditions: (a) It must be able to achieve VOC and methane gas destruction efficiency of 98%; and (b) It must be operated with a flame that is present at all times or is automatically triggered to ensure no methane is released without the flare operating; (c) It must be equipped with a flare tip design to provide good mixing with air and flame stability; and

(d) Visible smoke emissions of flare must not be permitted for more than five minutes in any two hour period; and

(e) All the time during flaring, the net heating value of the flare feed gas must be greater than 200 BTU per standard cubic foot (BTU/Scf) or 7.45 MJ/Sm^3; and

(f) Contaminants released to the atmosphere from the flare must be at a height not less than the 9.5 m above ground.

A3

Contaminants must only be released to air from the point source in accordance with *Table 3 – Point source and biofilter air release limits* when measured in accordance with the associated requirements.

Table 3 – Point source and biofilter air release limits

Release point	Minimum release height above ground (metres)	Minimum velocity (m/s)	Contaminant	Maximum release limit	Monitoring frequency
Stack serving combustion gases from the Generator depicted in Appendix B	8.1	12.3	Carbon Monoxide (CO)	125 mg/Nm^3 dry @ 3% O_2	All stacks must be monitored for the contaminants within three months after commissioning of the gas engine and six (6) monthly thereafter
			Oxides of Nitrogen (as NO_2)	450 mg/Nm^3 (dry) @ 3% O_2	
			Oxides of Sulphur (sulphur dioxide and sulphur trioxide as SO_2 equivalent)	200 mg/Nm^3 (dry) @ 3% O_2	
			Volatile Organic Compounds (as n-propane equivalent)	20 mg/Nm^3 (dry) @ 3% O_2	
			Total Solid Particulates (TSP)	30 mg/Nm^3 dry @ 3% O_2	

			Hydrogen sulphide (H_2S)	5 mg/Nm^3 dry @ 3% O^2	
			Odour emission rate measured using AS: 4323.3, 2001	3210 ou.m^3/s	
Biofilters serving Composting Mixing Shed - depicted as *Biofilter 1* and *Biofilter 2* in Appendix B	-	-	Odour emission rate measured using AS: 4323.3, 2001	473 ou.m^3/s for (Stage 1) and 391 ou.m^3/s for (Stage 2)	All biofilter surfaces must be monitored for odour emission rates within three months after commissioning of the biofilters and six (6) monthly thereafter
Biofilter serving Biogas Facility - depicted as *Biofilter* in Appendix B				225 ou.m^3/s (Stage 2)	

Associated Requirements

1) The release of contaminants from a point source must be directed vertically upwards without any impedance or hindrance.

2) Monitoring must be undertaken during a release and at the authorised release points, frequency and for the contaminants specified in Table 3.

3) Monitoring must be undertaken when emissions are expected to be representative of actual operating conditions for the sample period.

4) All monitoring devices must be effectively calibrated and maintained in accordance with the manufacturer's instructions and Australian and international standards.

5) Air Monitoring must be in accordance with the current edition of the administering authority's Air Quality Sampling Manual. If monitoring requirements are not described in the administering authority's Air Quality Sampling Manual, monitoring protocols must be in accordance with a method as approved by New South Wales Environmental Protection Authority, Victorian Environmental Protection Authority or United States Environmental Protection Agency.

6) Monitoring provision for the release points (stack) listed in Table 3 must comply with the Australian Standard AS 4323.1 - 1995 "Stationary source emissions Method 1: Selection of sampling positions".

7) Odour sampling and measurement must be conducted using methods as prescribed in the Australian Standard: AS/NZS 4323.3:2001, Stationary source emissions - Determination of odour concentration by dynamic olfactometry.

	8) All air emission stack monitoring must be conducted by an experienced person or body which holds current National Association of Testing Authorities (NATA). 9) The following tests must be performed for each required monitoring event specified in Table 3: (i) gas velocity and volume flow rate; (ii) temperature and oxygen content; and (iii) water vapour concentration. 10) During the sampling period the following additional information must be gathered: (i) plant throughput rate at the time of sampling; (ii) plant operating parameters which includes but is not limited to: material feed rate, feed-stocks composition/characteristics and its residence time in the anaerobic digester; (iii) any typical factors that may influence air pollutant emissions; and (iv) reference to the actual test methods and accuracy.
A4	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, the effectiveness of the measures must be reviewed annually or when new feedstocks with the odour rating of "high" and/or "very high", as listed in column "Odour Rating" in Schedule 1—Odour: *Table 1 – Odour rating of composting feedstocks*, are accepted."
A5	The enclosed systems used to process organic waste, must be fitted with an air filtration system, which includes biofilters, that must achieve an individual reduction in odour emissions of at least 82.9%, using the following equation: $E = 100 – (C_{out} \div C_{in}) \times 100$ Where: • E is the percentage odour control efficiency of the odour control devices • C_{out} is the odour concentration of air exiting the odour control device • C_{in} is the odour concentration of air entering the odour control device.
A6	The air filtration system must be designed, installed, operated and maintained by an appropriately qualified person.

<table>
<tr><td>A7</td><td>An Air Filtration System Efficiency Monitoring Plan must be developed and implemented which includes:
(a) Determination of relevant performance parameters (taking into account the optimal performance range as recommended by the manufacturer) that can be used to determine whether the air filtration system is working effectively to reduce odour emissions and to prevent offensive odours from the enclosed system; and
(b) Requirements and procedures for daily monitoring of the air filtration system’s performance to determine whether the relevant performance parameters are being met, including the biofilter efficiency monitoring program as required by condition A9; and
(c) Measures that are to be taken within 24 hours of any monitoring result that indicates the air filtration system is operating outside the performance parameters or is otherwise causing the release of offensive odours; and
(d) A record keeping system for recording the time, date and results of all monitoring, investigations and measures taken to address the operation of the air filtration system outside the performance parameters or otherwise due to a release of offensive odours.</td></tr>
<tr><td>A8</td><td>The air filtration system must be operated and monitored in accordance with the Efficiency Monitoring Plan prescribed in condition A7.</td></tr>
<tr><td>A9</td><td>The performance of biofilters must be monitored in accordance with the frequency and parameters stated in Table 4 – Monitoring parameters for biofilter beds.
Table 4 – Monitoring parameters for biofilter beds
<table><tr><th>Parameter</th><th>Frequency</th></tr><tr><td>pH of the biofilter bed (pH units)</td><td>Every month</td></tr><tr><td>Moisture content of the biofilter bed (%)</td><td>Every month</td></tr><tr><td>Temperature of the biofilter bed (°C)</td><td>Every month</td></tr></table></td></tr>
<tr><td>A10</td><td>Forced aeration used in the Composting Mixing Shed identified in Appendix A: Site Plan must be managed to prevent anaerobic conditions.</td></tr>
<tr><td colspan="2">Agency Interest: Noise</td></tr>
<tr><td>N1</td><td>Noise generated by the activity must not cause environmental nuisance to any sensitive place or commercial place.</td></tr>
<tr><td>N2</td><td>Noise from the activity must not include substantial low frequency noise components and must not exceed the levels identified in Table 5 – Noise limits when measured in accordance with the associated monitoring requirements at any nuisance sensitive place or commercial place.
Table 5 – Noise limits</td></tr>
</table>

Noise level measured in (dB(A))	Monday to Saturday				Sunday and Public Holidays		
	7am–6pm	6pm–10pm	10pm–6am	6am-7am	9am–6pm	6pm–10pm	10pm–9am
	Noise measured at the nearest sensitive place						
$L_{Aeq\ adj,\ 1\ hr}$	43	38	33	38	33	33	33
$L_{Amax,\ 1\ hr}$	No limit prescribed	No limit prescribed	49	49	49	49	49
	Noise measured at a commercial place						
$L_{Aeq\ adj,\ 1\ hr}$	52	48	46	48	46	46	46

All monitoring of noise must be undertaken in accordance with the associated requirements:

Associated requirements

1. All monitoring devices must be calibrated and maintained according to the manufacturer's instruction manual.
2. Any monitoring must be in accordance with the most recent version of the **administering authority's** *Noise Measurement Manual.*
3. Any monitoring of noise emissions from the **activity** must be undertaken when the **activity** is in operation.
4. All monitoring must be performed by an **appropriately qualified person(s).**
5. Monitoring location(s) must be relevant to the matter(s) under investigation.
6. Monitoring must include:
   i) $L_{Aeq,\ adj,1hr}$ and L_{AMax}
   ii) Background noise (background) as $L_{A90,\ adj,\ T}$
   iii) The level and frequency of occurrence of any impulsive or tonal noise
   iv) Atmospheric conditions including wind speed and direction
   v) Effects due to extraneous factors such as traffic noise; and
   vi) Location, date and time of recording.

Agency Interest: Water	
WT1	Other than as permitted within this environmental authority, contaminants must not be released to waters.
WT2	Where feedstock other than green waste is being accepted, any stormwater which filters through composting piles or stored feedstock must be managed as leachate.
WT3	Stormwater 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 10 years must be beneficially re-used in the carrying out of the activity.

<table>
<tr><td>WT4</td><td>Notwithstanding condition WT3, stormwater may be released from the site only after an event exceeding a 24 hour storm event with an average recurrence interval (ARI) of 1 in 10 years and where:
(a) Beneficial reuse of contained stormwater runoff on site is not viable; and
(b) The release is required to prevent an exceedance of the stormwater retention capacity required by this environmental authority; and
(c) There are no contaminants present that will, or that are capable of causing environmental harm.</td></tr>
<tr><td>WT5</td><td>Stormwater runoff permitted to be released from the site by WT4 must only be released in accordance with Table 6 - Stormwater release and monitoring requirements when measured in accordance with the associated monitoring requirements.
Table 6 – Stormwater release and monitoring requirements
<table>
<tr><th>Release point</th><th>Monitoring point</th><th>Indicators</th><th>Unit</th><th>Monitoring frequency</th></tr>
<tr><td rowspan="8">Combined Stormwater Discharge Point as labelled on Appendix C</td><td rowspan="8">Water Monitoring Points as labelled on Appendix C</td><td>pH*</td><td>Range</td><td rowspan="8">Quarterly, or in the event of a release</td></tr>
<tr><td>Dissolved oxygen*</td><td>% saturation</td></tr>
<tr><td>Electrical conductivity*</td><td>µS/cm</td></tr>
<tr><td>Turbidity*</td><td>NTU</td></tr>
<tr><td>Suspended solids</td><td>mg/L</td></tr>
<tr><td>Total nitrogen</td><td>µg/L</td></tr>
<tr><td>Total phosphorus</td><td>µg/L</td></tr>
<tr><td>PFAS trace level analysis</td><td>ng/L</td></tr>
<tr><td colspan="5">* To be measured in-situ</td></tr>
</table>
Associated monitoring requirements
1. Monitoring must be in accordance with the methods prescribed in the current edition of the administering authority’s Water Quality Sampling Manual.
2. Samples must be taken using representative samples.
3. All determinations 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.
4. All monitoring devices must be correctly calibrated and maintained.</td></tr>
<tr><td>WT6</td><td>Leachate must be collected and stored in the enclosed building depicted in Appendix A: Site Plan as Stage 1 Composting Mixing Shed.</td></tr>
<tr><td>WT7</td><td>Leachate collection and storage must be designed, installed, operated and maintained by an appropriately qualified person to:</td></tr>
</table>

	(a) Prevent ponding of leachate in any area other than the designated leachate collection and/or storage areas; and (b) Prevent the leachate directly entering a stormwater basin; and (c) Drain leachate away from composting material; and (d) Drain leachate to a collection drain.
Agency Interest: Land	
L1	Other than as permitted within this environmental authority, contaminants must not be released to land.
L2	Erosion and sediment control measures must be installed and maintained to: (a) Allow stormwater to pass through the site in a controlled manner and at non-erosive flow velocities; and (b) Minimise the duration that disturbed soils are exposed to the erosive forces of wind, rain, and flowing water; and (c) Minimise soil erosion; and (d) Minimise sedimentation of contour drains, drainage lines, channels and waterways; and (e) Minimise adverse impacts to land, waters or properties downstream to the activities (including roads).
L3	Prior to any clearing of vegetation on site, a qualified spotter-catcher must be engaged to prepare and implement a Wildlife Protection and Management Plan, which must include: (a) a pre-clearance survey of the area to be cleared to identify potential refuge for, and the presence of Koalas (*Phascolarctos cinereus*); (b) Clearing methodology to minimise physical risks to wildlife; (c) Assessment of animal health and injuries and husbandry of captured animals; (d) Identification of suitable release sites; and (e) Reporting requirements as per condition L4.
L4	All vegetation clearing activities are to be undertaken under the direction of a qualified spotter-catcher. Reports detailing the area cleared, the methodology used, any wildlife relocated, injured or killed, and the number and nature of habitat trees cleared are to be retained and provided to the administering authority upon request.
L5	Prior to any clearing activities, a targeted survey for flora species listed as endangered, vulnerable or near threatened in the Nature Conservation (Plants) Regulation 2020 must be undertaken. In the event such species are identified, a Protected Plant Clearing Permit must be sought and received from the appropriate administering authority prior to any disturbance commencing.

<table>
<tr><td>L6</td><td>Significant residual impacts to prescribed environmental matters are not authorised under this environmental authority unless the impact is specified in Table 7 - Authorised significant residual impacts to prescribed environmental matters. The impacts specified in Table 7 are only authorised to the maximum extent of impact prescribed in Table 7.

Table 7 – Authorised significant residual impacts to prescribed environmental matters
<table><tr><th>Prescribed Environmental matters</th><th>Location of Impact</th><th>Maximum Extent of Impact</th></tr><tr><td>Protected Wildlife Habitat - Habitat for an animal that is vulnerable wildlife – Koala (Phascolarctos cinereus)</td><td>The activity footprint identified in Appendix D (Lot 402 SP283238)</td><td>1172 Non-Juvenile Koala Habitat Trees (NJKHTs)</td></tr><tr><td colspan="3">NOTE: Where a SRI upon an MSES or MNES is triggered concurrently by another relevant Queensland or Commonwealth Act, that matter is only required to be offset once (as per the Environmental Offsets Act 2014).</td></tr></table></td></tr>
<tr><td>L7</td><td>An environmental offset must be undertaken for the maximum extent of impact to each prescribed environmental matter in Table 7 - Authorised significant residual impacts to prescribed environmental matters in accordance with the Environmental Offsets Act 2014.</td></tr>
<tr><td>L8</td><td>Records demonstrating that any impact to a prescribed environmental matter did not, or is not likely to, result in a significant residual impact to that matter must be:
(a) completed by an appropriately qualified person(s); and
(b) kept for the life of the environmental authority.</td></tr>
<tr><td>L9</td><td>Upon completion of the activity, land that has been disturbed by the activities conducted under this environmental authority must be rehabilitated in a manner such that:
(a) There is no visual evidence of erosion or sedimentation occurring; and
(b) The potential for environmental nuisance caused by dust is minimised; and
(c) The quality of water, including seepage, released from the site does not cause environmental harm; and
(d) The quality of water in any residual water body does not have the potential to cause environmental harm; and
(e) The landform is in stable condition; and
(f) Land is re-profiled to a level consistent with surrounding soils; and
(g) Land is re-profiled to original contours and established drainage lines; and
(h) Land is vegetated with groundcover which is not a declared pest species, and which is established and actively growing.</td></tr>
<tr><td colspan="2">Agency Interest: Waste</td></tr>
</table>

WS1	All waste generated in carrying out the activity must be reused, recycled or removed to a facility that can lawfully accept the waste.
WS2	Incompatible wastes must not be mixed in the same container or waste storage area.

Definitions

Key terms and/or phrases used in this document are defined in this section. 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 10 years means the maximum rainfall depth from a 24 hour duration precipitation event with an average recurrence interval of once in 10 years. For example, an Intensity-Frequency-Duration table for a 24 hour duration event with an average recurrence interval of 1 in 10 years, identifies a rainfall intensity of 8.2mm/hour. The rainfall depth for this event is therefore 24 hour x 8.2mm/hour = 196.8mm.

Activity means the environmentally relevant activity or activities to which the environmental authority relates.

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

Air filtration system means a system, including biofiltration, which removes or collects noxious or offensive odours and airborne contaminants.

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

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.

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.

Compost means an organic product that has undergone controlled aerobic and thermophilic biological transformation through the composting process to achieve pasteurisation (see Clause 1.5.13 of AS 4454:2012) and reduce phytotoxic compounds, and achieved a specified level of maturity required for compost (See Appendix N of AS 4454:2012)).

Composting means the production of composts, soil conditioners, mulches and other products such as mushroom growing substrate by processes including aerobic composting, anaerobic digestion and vermiculture. Composting does not include shredding, grinding, cutting and milling 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.*

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

Disturbed area/s include areas:

- That are susceptible to erosion; and/or
- That are contaminated by the activity; and/or
- Upon which stockpiles of soil or other materials are located.

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

Enclosed system means a large building, or section of a building, operating under negative pressure where the receipt, mixing and composting of feedstocks occurs.

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.*

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 and maturation.

Forced aeration means an aeration system where oxygen is forced through the composting material reducing the need for turning

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}.

In-vessel system means a system where composting material is contained and/or covered to capture or filter the release of gases from the composting process. Any in-vessel system must allow for air emissions to be captured and managed (including filtering) and is also capable of being operated under either positive or negative air pressure.

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 that contains soluble, suspended or miscible contaminants.

Maturation means the final stage of composting where the temperature is shown to decline and stabilise to an extent that it can be safely used on land and to come into direct contact with plants without any negative effects.

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

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

Organic waste as defined under section 53 of the Environmental Protection Regulation 2019.

Pasteurisation means a process whereby organic materials are heat-treated to significantly reduce the numbers of plant and animal pathogens and plant propagules.

Prescribed environmental matters as listed within Schedule 2 of the Environmental Offsets Regulation 2014.

Prohibited material include:

Prohibited waste	Description
Asbestos and asbestos containing materials	
Bilge waters	Sea and fresh water from vessel pump outs.
Biosecurity waste	(a) waste that is goods subject to biosecurity control under the *Biosecurity Act 2015* (Cwlth); or (b) goods under the *Biosecurity Act 2015* (Cwlth) that are or were in contact with waste mentioned in paragraph (a).
Dye waste (water based)	By-product from industrial dying processes.
Effluent waste and wastewater	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	Any concentrated solid and semi-solid waste streams from water treatment process (e.g. centrifuge, filter press), excluding material that complies with the requirements of End of Waste Code ENEW07503318[3].
Filter and ion exchange resin backwash waters	Any backwash and reject water from a filtration (e.g. sand or membrane filter) or ion exchange process, excluding material that complies with the requirements of End of Waste Code ENEW07503318[3].
Forecourt water	Run off from service station forecourts.
Hide curing effluent	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.
Materials containing persistent organic pollutants including polybrominated diphenyl ethers (PDBEs), polychlorinated biphenyls (PBCs), polyfluorinated organic compounds[4] and polyaromatic Hydrocarbons (PAHs).	

[3] Available online at https://environment.des.qld.gov.au/
[4] Materials containing per and poly-fluoroalkyl substances (PFAS) are considered separately

Prohibited waste	Description
Materials originating from activities or sites associated with PFAS contamination,[5] except where representative analysis results for the load undertaken in accordance with the PFAS monitoring requirements outlined in condition G9, indicate an absence of PFAS.	
Municipal solid waste (excluding segregated compostable organic waste that does not include another **prohibited material** under this environmental authority).	
Paint and industrial coatings products and wash	Paint and industrial coatings products and water and solvent wash down water containing paint and industrial coatings residues.
Particle board	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)	Greywater / wastewater from domestic or commercial buildings excluding sewage but including waters drained from showers, sinks and laundries.
Treatment tank sludges and residues	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.[3]
Treated timber waste	Any treated timber waste that does not meet the requirements of End of Waste Code ENEW07607119.[3]
Waste containing restricted stimulation fluids	
Waste contaminated with glass, metal, rubber and coatings that cannot be eliminated though processing	
Waste treated by immobilisation or fixation	
Water based inks	Liquid wastes from ink use or manufacture.
Water and solvent based paints and industrial coatings	Liquid waste paint, including where undiluted.

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.

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 is any part of the following:

[5] 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/

1. A dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or
2. A motel, hotel or hostel; or
3. A kindergarten, school, university or other educational institution; or
4. A medical centre or hospital; or
5. A protected area under the *Nature Conservation Act 1992*, the *Marine Parks Act 2004* or a World Heritage Area; or
6. A public park or garden; or
7. For noise, a place defined as a sensitive receptor for the purposes of the *Environmental Protection (Noise) Policy 2019*.

Significant residual impact means, as per Section 8 of the *Environmental Offsets Act 2014*, a generally adverse impact, whether direct or indirect, of a prescribed activity on all or part of a prescribed environmental matter that:

- remains, or will or is likely to remain, (whether temporarily or permanently) despite on-site avoidance and mitigation measures for the prescribed activity; and
- is, or will or is likely to be, significant.

Spotter-catcher means a person qualified to take and keep protected wildlife under a current rehabilitation permit granted under the Nature Conservation (Animals) Regulation 2020 (or previous regulations to authorise the take, keep or use of an animal) whose habitat is about to be destroyed by human activity.

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.

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

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.

Substantial low frequency noise means a noise emission that has an unbalanced frequency spectrum shown in a one-third octave band measurements, with a predominant component within the frequency range 10 to 200 Hz. It includes any noise emission likely to cause an overall sound pressure level at a noise sensitive place exceeding 55 dB(Z).

Transporter means a person who transports feedstock.

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

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.

Schedule 1—Odour rating of composting feedstock

If a **feedstock** can fit within multiple listings in Table 1 – Odour rating of compost **feedstock**, the most specific listing applies. For example, 'vegetable waste' could be considered 'Food organics' with a high odour rating. However, as 'vegetable waste' is listed as a specific example under 'Food and food processing waste' the applicable odour rating for 'vegetable waste' is medium.

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[6], 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 47362006 (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
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

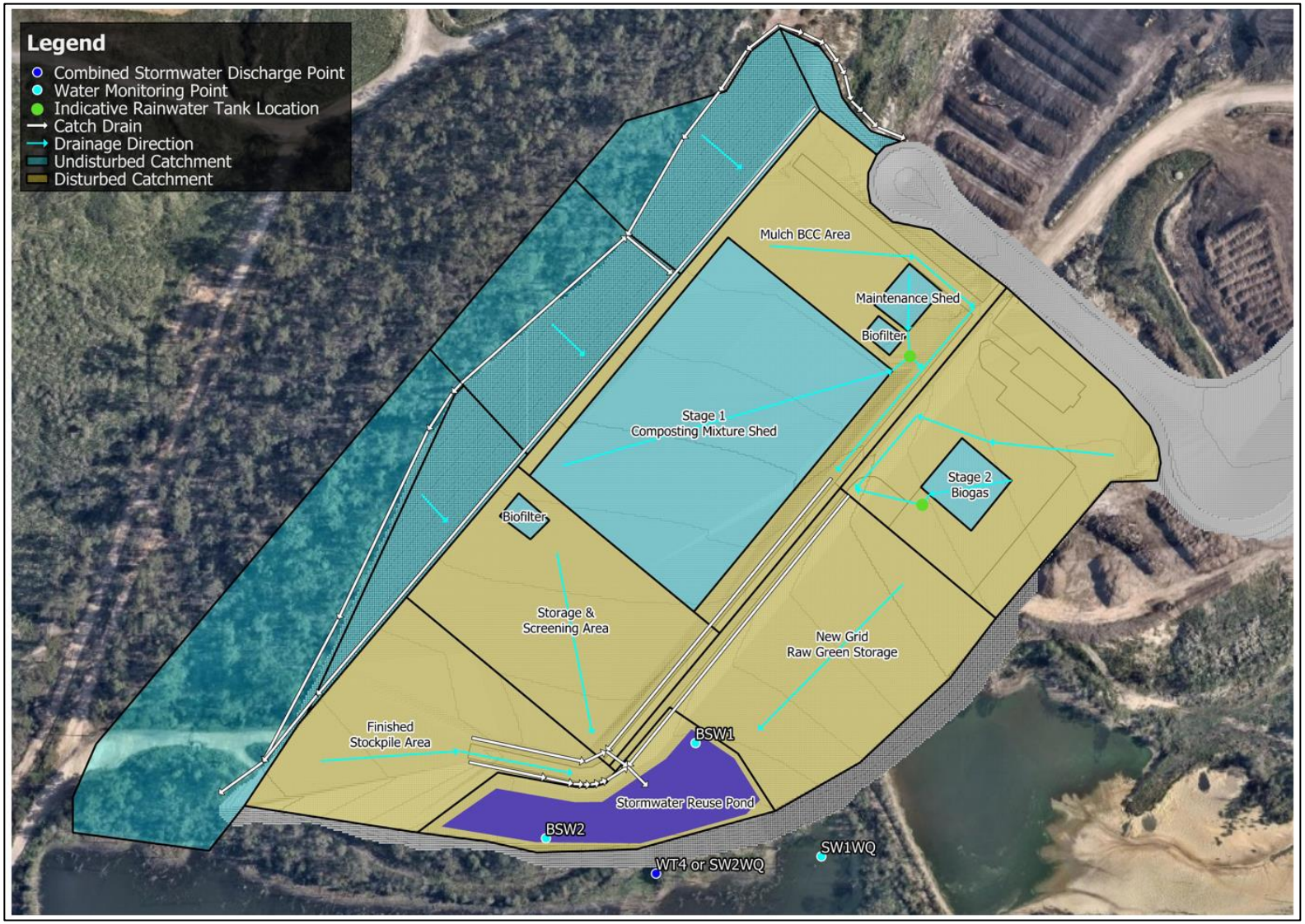
[6] That meets the Resource quality criteria for the approved use in the Sugar Mill By-Products End of Waste Code (ENEW07359817)

Feedstock	Examples	Odour Rating
	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

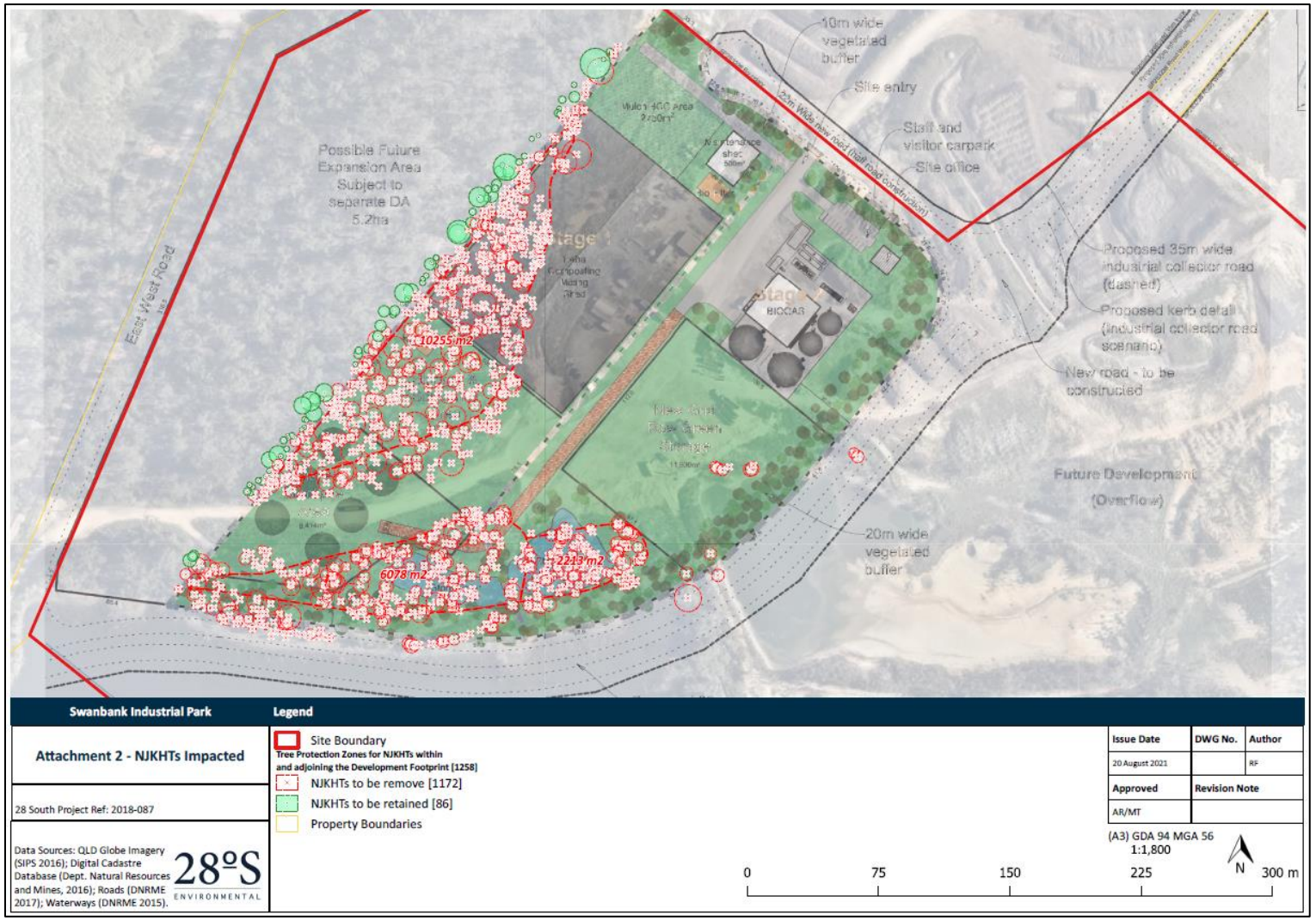
Appendix A - Site Plan

Appendix B – Point source release to Air

Appendix C – Point source release – Stormwater Discharge



Appendix D - Authorised significant residual impacts to prescribed environmental matters



END OF ENVIRONMENTAL AUTHORITY