

Permit

Environmental Protection Act 1994

Environmental authority EPPR00495113

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

Environmental authority number: EPPR00495113

Environmental authority takes effect on the day it is signed by the delegate.

The anniversary day of this environmental authority remains **31 January**. The payment of the annual fee will be due each year on this day.

Environmental authority holder

Name	Registered address
GELITA Australia Pty Ltd	50 Flood Road JOSEPHVILLE QLD 4285

Environmentally relevant activity and location details

Environmentally relevant activities	Locations
ERA 25 - Meat Processing 3: Rendering, without any other processing, in a year, the following quantity of meat or meat products (b) more than 500t	Lot 1 RP118424 Lot 2 RP118424 Lot 3 CP862699 Lot 2 RP32191
ERA 63 - Sewage Treatment 1: Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of (a-i) 21 to 100EP if treated effluent is discharged from the works to an infiltration trench or through an irrigation scheme	Lot 1 RP118424 Lot 2 RP118424 Lot 3 CP862699 Lot 2 RP32191
ERA 53 - Organic material processing: Processing more than 200t of organic material in a year - (a) by composting the organic material	Lot 3 CP862699

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 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.

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 Resources (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. If you are unsure that you have the most current version of the environmental authority relating to this site please visit <https://apps.des.qld.gov.au/env-authorities/> to access all environmental authorities currently approved.



Signature

Rebecca Griffiths

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

29/09/2023

Date

Enquiries:

Utilities and Government Organisations
Assessment
Department of Environment and Science
Phone: 1300 130 372 (option 4)
Email: palm@des.qld.gov.au

Conditions of environmental authority

Part 1 – General conditions for all activities

Environmentally relevant activity	Location
ERA 25 - Meat Processing 3: Rendering, without any other processing, in a year, the following quantity of meat or meat products (b) more than 500t	Lot 1 RP118424 Lot 2 RP118424 Lot 3 CP862699 Lot 2 RP32191
ERA 63 - Sewage Treatment 1: Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of (a-i) 21 to 100EP if treated effluent is discharged from the works to an infiltration trench or through an irrigation scheme	Lot 1 RP118424 Lot 2 RP118424 Lot 3 CP862699 Lot 2 RP32191
ERA 53 - Organic material processing: Processing more than 200t of organic material in a year - (a) by composting the organic material	Lot 3 CP862699

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

Agency interest: General	
Condition number	Condition
P1-A1	All reasonable and practicable measures must be taken to prevent or minimise environmental harm caused, or likely to be caused, by the activities.
P1-A2	Unless specifically authorised by a condition of this environmental authority, this environmental authority does not authorise a relevant act which is: a) an act that causes serious or material environmental harm or an environmental nuisance; or b) an act that contravenes a noise standard; or c) a deposit of a contaminant, or release of stormwater run-off, mentioned in section 440ZG of the <i>Environmental Protection Act 1994</i>.
P1-A3	Contravention of conditions Details of any contravention of a condition of this environmental authority must: a) be reported to the administering authority within 24 hours of becoming aware of the contravention; and b) include the nature and circumstances of the contravention and any immediate actions taken.
P1-A4	As soon as reasonably practicable and within 20 business days of a report made under condition P1-A3 (or a longer period agreed to in writing by the administering authority), an investigation must be undertaken to determine:

	a) the potential circumstances and actions that may have contributed to the contravention; and b) the environmental impact of the contravention; and c) reasonable and practicable measures that will be implemented to address the cause of the contravention to prevent future contraventions of this nature.
P1-A5	As soon as reasonably practicable and within 20 business days of investigating a contravention under condition P1-A4 (or a longer period agreed to in writing by the administering authority), the reasonable and practicable measures identified in the investigation must be implemented.
P1-A6	The outcome of the investigation carried out under condition P1-A4 and the reasonable and practicable measures implemented under condition P1-A5 must be recorded.
P1-A7	Complaints The following details must be recorded for all complaints received and provided to the administering authority upon request: 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.
P1-A8	As soon as reasonably practicable and within 5 business days of receiving a complaint (or a longer period agreed to in writing by the administering authority), an investigation must be undertaken to determine: a) the potential circumstances and actions on site that may have contributed to the basis of the complaint; and b) reasonable and practicable measures that will be implemented to address the complaint.
P1-A9	As soon as reasonably practicable and within 5 business days of investigating a complaint under condition P1-A8 (or a longer period agreed to in writing by the administering authority), the reasonable and practicable measures identified in the investigation must be implemented.
P1-A10	The outcome of the investigation carried out under condition P1-A8 and the reasonable and practicable measures implemented under condition P1-A9 must be recorded.
P1-A11	Environmental risk management procedures Written procedures must be developed and implemented by an appropriately qualified person that ensure: a) all potential risks to the environment from the carrying out of the activity are identified and assessed, including: i) during routine operations; and ii) outside routine operations (e.g., maintenance, start up and shut down); and iii) during preparation; and iv) in an emergency (e.g., fire, flood or other natural disaster); and b) for each potential risk identified, any necessary measures to prevent or minimise the potential for environmental harm are implemented; and c) staff understand their obligations under this environmental authority and the <i>Environmental</i>

	<i>Protection Act 1994</i>; and d) environmental risk management procedures are continually reviewed and improved, based on a reasonable risk-management approach.						
P1-A12	Plant and equipment An appropriately qualified person must install, operate, calibrate, and maintain the plant and equipment required to carry out the activity (including monitoring devices) in a proper and effective manner.						
P1-A13	Records of installation, calibration and maintenance carried out under condition P1-A12 must be kept.						
P1-A14	Record keeping Unless otherwise specified by a condition of this environmental authority, records must be: a) kept for the period outlined in <i>P1 - Table 1 – Record keeping requirements</i>; and b) provided to the administering authority upon request. P1 - Table 1 – Record keeping requirements <table border="1"> <thead> <tr> <th>Description of records</th><th>Retention requirement</th></tr> </thead> <tbody> <tr> <td>Monitoring results</td><td>Retain for 15 years.</td></tr> <tr> <td>All other records</td><td>Retain for 5 years.</td></tr> </tbody> </table>	Description of records	Retention requirement	Monitoring results	Retain for 15 years.	All other records	Retain for 5 years.
Description of records	Retention requirement						
Monitoring results	Retain for 15 years.						
All other records	Retain for 5 years.						
P1-A15	Chemical storage Chemicals and fuels in containers of greater than 15 litres must be stored within a secondary containment system.						
P1-A16	Monitoring and sampling All monitoring and sampling required by the conditions of this environmental authority must be carried out, interpreted, and recorded by an appropriately qualified person.						
P1-A17	Unless otherwise authorised in writing by the administering authority, all laboratory analyses required under this environmental authority must be carried out by a laboratory that has National Association of Testing Authorities (NATA) accreditation for such analyses. The only exception to this condition is for <i>in situ</i> monitoring of pH, dissolved oxygen and electrical conductivity.						
P1-A18	Other than as permitted by this environmental authority, the release of a contaminant into the environment must not occur.						
P1-A19	An Annual Monitoring Report must be prepared and submitted to the administering authority by 31 May each year, for the preceding calendar year.						

Part 2 – Meat processing (main site) and sewage treatment

Environmentally relevant activity	Location
ERA 25 - Meat Processing 3: Rendering, without any other processing, in a year, the following quantity of meat or meat products (b) more than 500t	Lot 1 RP118424 Lot 2 RP118424 Lot 3 CP862699
ERA 63 - Sewage Treatment 1: Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of (a-i) 21 to 100EP if treated effluent is discharged from the works to an infiltration trench or through an irrigation scheme	Lot 1 RP118424 Lot 2 RP118424 Lot 3 CP862699

The environmentally relevant activities conducted at the locations as described above must be conducted in accordance with *Part 1 – General conditions for all activities*, and the following site-specific conditions of approval.

Condition number	Condition																																
Schedule: Air																																	
P2-B1	Odours or airborne contaminants from the activity must not cause environmental nuisance to any sensitive place or commercial place .																																
P2-B2	Contaminants must only be released to air from the Authorised Release Points in accordance with <i>P2-Table 1 – Point Source Air Release Limits</i>. P2-Table 1 – Point Source Air Release Limits <table><tr><th colspan="4">Authorised Release Point (GPS)</th><th rowspan="2">Contaminant</th><th rowspan="2">Minimum release height (m)</th><th rowspan="2">Minimum efflux velocity (m/sec)</th><th rowspan="2">Maximum release limit (mg/Nm³)</th></tr><tr><th>Ref</th><th>Description</th><th>Latitude</th><th>Longitude</th></tr><tr><td rowspan="2">RP1</td><td rowspan="2">10MW LPG Boiler</td><td rowspan="2">-28.0200</td><td rowspan="2">152.9323</td><td>Nitrogen Oxides (expressed as NO₂)</td><td>10</td><td>6</td><td>350</td></tr><tr><td>Carbon monoxide (expressed as CO)</td><td>10</td><td>6</td><td>125</td></tr><tr><td>RP2</td><td>5MW LPG Stand-by Boiler</td><td></td><td></td><td>NA</td><td>16</td><td>10</td><td>NA</td></tr></table>	Authorised Release Point (GPS)				Contaminant	Minimum release height (m)	Minimum efflux velocity (m/sec)	Maximum release limit (mg/Nm³)	Ref	Description	Latitude	Longitude	RP1	10MW LPG Boiler	-28.0200	152.9323	Nitrogen Oxides (expressed as NO ₂)	10	6	350	Carbon monoxide (expressed as CO)	10	6	125	RP2	5MW LPG Stand-by Boiler			NA	16	10	NA
Authorised Release Point (GPS)				Contaminant	Minimum release height (m)					Minimum efflux velocity (m/sec)	Maximum release limit (mg/Nm³)																						
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RP2	5MW LPG Stand-by Boiler			NA	16	10	NA																										
P2-B3	The holder of this environmental authority must conduct a monitoring program of contaminant releases to the air at the release points, frequency, and for the parameters specified in <i>P2-Table 2 – Required Release Point Determinations</i> and which complies with the following: a) All determinations of the quality of contaminants released must be performed by an appropriately qualified person; and																																

	b) Monitoring must comply with the Australian Standard AS 4323.1 - 1995 "Stationary source emissions Method 1: Selection of sampling provisions"; and c) The following tests must be performed for each required determination specified in <i>P2-Table 2 – Required Release Point Determinations</i>: i) gas velocity and volume flow rate; and ii) temperature; and iii) water vapour and oxygen concentration; and d) samples taken must be representative of the contaminants discharged when emissions are expected to be at a maximum. P2-Table 2 - Required Release Point Determinations <table><tr><th>Release Point Number</th><th>Determination Required</th><th>Frequency</th></tr><tr><td>RP1</td><td>Mass rate and concentration of Carbon Monoxide (expressed as CO at a 3% oxygen level).</td><td>Biennially</td></tr><tr><td>RP2</td><td>Mass rate and concentration of Nitrogen Oxides (expressed as NO₂ at a 3% oxygen level):</td><td>Biennially</td></tr></table>	Release Point Number	Determination Required	Frequency	RP1	Mass rate and concentration of Carbon Monoxide (expressed as CO at a 3% oxygen level).	Biennially	RP2	Mass rate and concentration of Nitrogen Oxides (expressed as NO ₂ at a 3% oxygen level):	Biennially
Release Point Number	Determination Required	Frequency								
RP1	Mass rate and concentration of Carbon Monoxide (expressed as CO at a 3% oxygen level).	Biennially								
RP2	Mass rate and concentration of Nitrogen Oxides (expressed as NO ₂ at a 3% oxygen level):	Biennially								
P2-B4	The only type of fuel to be burnt in the industrial fuel burning equipment is liquid petroleum gas (LPG), natural gas and biogas.									
P2-B5	The sulphur content of liquid petroleum gas (LPG) and natural gas burnt in industrial fuel burning equipment is not to exceed one (1) percent by weight.									
P2-B6	Ventilation air and effluent gases from the raw materials building must be collected and treated by a wet scrubber and a biofilter prior to release to the atmosphere.									
P2-B7	Effluent gases from the raw wastewater balance tank, the equalisation tank, and the sludge storage tank, must be collected and treated through a biofilter prior to release to the atmosphere.									
Schedule: Water										
P2-C1	Contaminants must not be-directly or indirectly released from the approved place to any waters or the bed and banks of any waters except: a) as permitted under the stormwater management schedule; or b) to a sewer as permitted or otherwise agreed from time to time by the relevant Local Government.									
P2-C2	All ponds used for the storage or treatment of contaminants or wastes must be installed and maintained so that a minimum freeboard of 0.5 metres is maintained at all times.									
P2-C3	All ponds used for the storage or treatment of contaminants or wastes must be installed and maintained to ensure the stability of the pond's construction									
P2-C4	Ponds or other structures used for the storage or treatment of contaminants or wastes must not be located in any area likely to receive substantial stormwater runoff.									
P2-C5	Suitable banks and or diversion drains must be installed and maintained to exclude stormwater runoff from entering wastewater treatment ponds.									
P2-C6	The holder of this environmental authority must operate all relevant equipment and undertake all practicable measures necessary to ensure that anaerobic conditions do not occur within any pond									

	within the wastewater treatment process on the approved place.
P2-C7	All ponds used for the treatment of contaminants or wastes must be operated in such a manner that short-circuiting of the flow of contaminants or wastes does not occur.
P2-C8	All ponds used for the storage or treatment of contaminants or wastes must be installed and maintained to prevent any discharge through the bed or banks of the pond to any waters (including groundwaters).
Schedule: Stormwater	
P2-D1	The environmentally relevant activities must be carried out by such practicable means necessary to prevent the contact of incident rainfall and stormwater runoff with wastes or other contaminants.
P2-D2	Where it is not practicable to prevent contact as required by condition number P2-D1, the environmentally relevant activities must be carried out by such practicable means necessary to minimise any such contact.
P2-D3	Except as otherwise provided by the conditions of the stormwater management schedule and the water schedule of this environmental authority, the environmentally relevant activity must be carried out by such practicable means necessary to prevent the release or likelihood of release of contaminated runoff from the approved place to any stormwater drain or waters or the bed or banks of any such waters .
P2-D4	Where it is not practicable to prevent any release of contaminated runoff as required by condition P2-D3, the environmentally relevant activity must be carried out by such practicable means necessary to minimise any such release or the likelihood of any such release .
P2-D5	The maintenance and cleaning of vehicles and any other equipment or plant must be carried out in areas from where contaminants cannot be released into any waters , roadside gutter or stormwater drainage system.
P2-D6	Any spillage of wastes, contaminants or other materials must be cleaned up as quickly as practicable. Such spillages must not be cleaned up by hosing, sweeping or otherwise releasing such wastes, contaminants or material to any stormwater drainage system, roadside gutter or waters .
P2-D7	The base and walls of all bunded areas must be maintained free from gaps or cracks.
P2-D8	All loading/unloading of bulk materials must take place only within designated vehicle loading/unloading areas.
P2-D9	All chemical and fuel tank storages must be bunded so that the capacity of the bund is sufficient to contain at least one hundred percent (100%) of the largest storage tank plus ten percent (10%) of the second largest tank within the bund.
P2-D10	All chemical and fuel drum storages must be bunded so that the capacity of the bund is sufficient to contain at least twenty-five percent (25%) of the maximum design storage volume within the bund.
P2-D11	All bunding must be roofed where practicable.
P2-D12	Where it is impractical to completely roof a bunded area, the holder of this environmental authority must ensure that any stormwater captured within the bund is free from contaminants or wastes prior to any release .
P2-D13	All bunding must be constructed and maintained so as to be sufficiently impervious to allow retention

	and recovery of any materials being stored within the bund.
Schedule: Land	
P2-E1	The only contaminants to be released to land are treated wastewaters irrigated from the final effluent balancing storage dam and the final effluent polishing and pump-out ponds and sewage treatment plant effluent.
P2-E2	The defined contaminant release areas are marked on the ' <i>Leiner Davis Gelatin Sunny Hills Irrigation Farm</i> ' plan included with Leiner Davis Gelatin International Limited's application for an environmental authority, together with those areas of land where the holder of this environmental authority has a legal agreement or contract to dispose of treated wastewaters onto such property or supply treated effluent for reuse.
P2-E3	Where treated wastewater is discharged to any land vested in or under the control of a person or body other than the holder of this environmental authority, the holder of this environmental authority, must have a legal agreement or contract with such body or person to dispose of treated wastewater onto that property or supply treated effluent for reuse. This agreement or contract must clearly identify the contractual obligations of the parties to the agreement or contract for any environmental harm arising from the supply or transfer or storage or reuse of the treated wastewater.
P2-E4	The holder of this environmental authority must supply the administering authority with a copy of any agreement(s) or contract(s) held under condition (P2-E3) within thirty (30) days of the agreement or contract being finalised.
P2-E5	A minimum of 120 hectares of land , excluding buffer zones, must be provided for the contaminant release areas on site, apart from those areas of land where the holder of this environmental authority has a legal agreement or contract to dispose of treated wastewaters onto such property or supply treated effluent for reuse.
P2-E6	All contaminants must be stored or disposed of on the defined contaminant release areas. There must be no direct or indirect release of contaminants to any waters .
P2-E7	The contaminant release areas must be maintained in a proper and efficient condition so as to provide adequate assimilation, percolation, evaporation and transpiration of the released contaminants.
P2-E8	Spray from any release of contaminants to land must not drift beyond the boundaries of the approved place or beyond the boundaries of those areas of land where the holder of this' environmental authority has a legal agreement or contract to dispose of treated wastewaters onto such property or supply treated effluent for reuse.
P2-E9	The holder of this environmental authority must ensure that, on any treated effluent irrigation area under their control, access of grazing animals is controlled to prevent soil pugging.
P2-E10	The release of contaminants to land must not be carried out within 30 metres of any watercourse.
P2-E11	The release of contaminants to land must not be carried out within 20 metres of any boundary of the approved place.
P2-E12	The release of contaminants to land must not be carried out if soil moisture conditions are such that water-logging of soils is likely to occur.
P2-E13	When weather conditions or soil conditions preclude the application of final treated effluent, the contaminants must be directed to the effluent balancing storage dam.
P2-E14	Public/employee access to any contaminant release area for the disposal of sewage effluent must be denied during the release of contaminants to land and until the release area has dried.

P2-E15	Notices warning the public/employees not to use or drink the release of contaminants to land must be prominently displayed and must be maintained in a visible and legible condition.
P2-E16	Pipelines and fittings for the release of contaminants to land must be clearly identified. Standard water taps, hoses and cocks must not be fitted to contaminant release pipelines and the contaminant release system must not be connected to other service pipelines. Lockable valves or removable handles must be fitted to the contaminant release pipelines where there is public access to the contaminant release areas.
P2-E17	The holder of this environmental authority must develop and implement an Irrigation Management Plan which details how the holder of this environmental authority will effectively and appropriately manage the effluent irrigation process so as to sustainably comply with all conditions of this environmental authority.
P2-E18	The IMP must detail how irrigation is to be managed and scheduled having regard to at least the following: a) soil moisture results; and b) weather forecasts and climate monitoring results; and c) irrigation records for each effluent disposal area; and d) water quality results for on-site and adjacent creeks; and e) effluent quality results; and f) soil quality results for the effluent disposal areas; and g) groundwater level results; and h) groundwater quality results; and i) crop history for each effluent disposal area; and j) sustainable hydraulic loadings for the contaminant release areas; and k) sustainable biological oxygen demand loadings for the contaminant release areas; and l) sustainable nitrogen loadings for the contaminant release areas; and m) sustainable phosphorus loadings for the contaminant release areas; and n) sustainable salt loadings for the contaminant release areas; and o) production of appropriate records and reporting of results and environmental issues.
P2-E19	In developing and implementing the Irrigation Management Plan use may be made of any relevant and appropriate plans, procedures or other relevant documents previously prepared.
P2-E20	A copy of the Irrigation Management Plan must be kept at the approved place.
P2-E21	The holder of this environmental authority must not implement an irrigation Management Plan or amend an Irrigation Management Plan where such implementation or amendment would result in a contravention of any condition of this environmental authority.
P2-E22	The holder of this environmental authority must submit details of any amendment to the Irrigation Management Plan to the administering authority with the annual return which immediately follows the enactment of any such amendment.
P2-E23	The contaminants released to land under the control of the holder of this environmental authority or supplied to any other person or body for irrigation to land must comply, at the sampling and in-situ

	measurement points specified in schedule H, with each of the release limits specified in <i>P2-Table 3 – Release Quality Characteristic Limits</i> for each quality characteristic.																
P2-E24	Notwithstanding the quality characteristic limits specified in <i>P2-Table 3 - Release Quality Characteristic Limits</i>, the contaminants released must also comply with the following qualitative characteristics: a) the release must not have any properties nor contain any organisms or contaminants in concentrations which are capable of causing environmental harm or an environmental nuisance. P2-Table 3 – Release Quality Characteristic Limits <table><tr><th>Quality Characteristics</th><th>Release Limit</th><th>Units</th><th>Limit Type</th></tr><tr><td>5-day Biochemical Oxygen Demand</td><td>400</td><td>mg/L</td><td>Maximum</td></tr><tr><td>Chemical Oxygen Demand</td><td>800</td><td>mg/L</td><td>Maximum</td></tr><tr><td>pH</td><td>6.5 - 11</td><td>pH units</td><td>Range</td></tr></table>	Quality Characteristics	Release Limit	Units	Limit Type	5-day Biochemical Oxygen Demand	400	mg/L	Maximum	Chemical Oxygen Demand	800	mg/L	Maximum	pH	6.5 - 11	pH units	Range
Quality Characteristics	Release Limit	Units	Limit Type														
5-day Biochemical Oxygen Demand	400	mg/L	Maximum														
Chemical Oxygen Demand	800	mg/L	Maximum														
pH	6.5 - 11	pH units	Range														
Schedule: Noise																	
P2-F1	Noise generated by the activity must not cause environmental nuisance to any sensitive place or commercial place .																
Schedule: Waste																	
P2-G1	Waste must not be released to the environment, stored, transferred or disposed of contrary to any condition of this environmental authority.																
P2-G2	The holder of this environmental authority must not: a) burn waste at or on the approved place; or b) allow waste to burn or be burnt at or on the approved place; or c) remove waste from the approved place and burn such waste elsewhere.																
P2-G3	An area must be set aside for the segregation and storage of recyclable solid wastes.																
P2-G4	Where a no-cost recycling service is available, reasonable and practicable steps must be taken to ensure recyclable waste is not deposited in the general waste stream. Such steps may include, but not be limited to; provision of receptacles, suitable signs, and promotion of awareness among staff of the recycling service.																
P2-G5	Where regulated waste is removed from the approved place (other than by a release as permitted under another schedule of this environmental authority), the holder of this environmental authority must monitor and record the following: a) the date; quantity and type of waste removed; and b) name of the waste transporter and/or disposal operator that removed the waste; and c) the intended treatment/disposal destination of the waste. (NOTE: Records of documents maintained in compliance with a waste tracking system established under the <i>Environmental Protection Act 1994</i> or any other law for regulated waste will be deemed to satisfy this condition.)																
P2-G6	Regulated waste must not be sent for disposal at any facility without the written approval of the																

	person operating that facility.
P2-G7	Records must be maintained for a period of five (5) years for all wastes mentioned in this schedule.
P2-G8	If the holder of this environmental authority becomes aware that a person has removed waste from the approved place and disposed of the waste in a manner which is not authorised by this environmental authority or improper or unlawful, then the holder of this environmental authority must, as soon as practicable, notify the administering authority of all relevant facts, matters and circumstances known concerning the disposal.
Schedule: Self-Monitoring and Reporting	
P2-H1	All complaints received by the holder of this environmental authority relating to operations at the approved place must be recorded and include the following details: a) time, date and nature of complaint; type of communication (telephone, letter, personal etc.); and b) name, contact address and contact telephone number of complainant, where possible, (Note: if the complainant does not wish to be identified then "Not identified" is to be recorded); and c) a response and investigation undertaken as result of the complaint; and d) name of person-responsible for investigating complaint; and e) action taken as a result of the complaint investigation and signature of responsible person.
P2-H2	The complaints record required by condition P2-H1 must be maintained for a period of not less than five (5) years.
P2-H3	A record must be maintained of events including but not limited to: a) the time date and duration of equipment malfunctions that may affect the environmental performance of the approved place; and b) any shut-downs of the biofilters, waste water treatment plant or other equipment upon which the environmental performance of the approved place depends; and c) the hours of operation of the plant when these events have occurred.
P2-H4	The record required by condition P2-H3 must be maintained for a period of not less than five (5) years.
P2-H5	As soon as practicable after becoming aware of any emergency or incident which results in the release of contaminants not in accordance, or reasonably expected to be not in accordance with the conditions of this environmental authority, the holder of this environmental authority must notify the administering authority of the release by telephone, or e-mail.
P2-H6	The notification of emergencies or incidents as required by condition P2-H5 must include but not be limited to the following: a) the holder of the environmental authority; and b) the location of the emergency or incident; and c) the number of the environmental authority; and d) the name and telephone number of the designated contact person; and e) the time of the release; and f) the time the holder of the environmental authority became aware of the release; and g) the suspected cause of the release; and h) the environmental harm and or environmental nuisance caused, threatened, or suspected to -be caused by the release; and

	i) actions taken to prevent further any release and mitigate any environmental harm.								
P2-H7	Not more than fourteen (14) days following the initial notification of an emergency or incident, the holder of the environmental authority must provide written advice of the information supplied in accordance with condition P2-H6 in addition to: a) proposed actions to prevent a recurrence of the emergency or incident; and b) outcomes of actions taken at the time to prevent or minimise environmental harm.								
P2-H8	As soon as practicable, but not more than six (6) weeks following the conduct of any environmental monitoring performed in relation to the emergency or incident, the holder of the environmental authority must provide written advice of the results of any such environmental monitoring performed.								
P2-H9	All records required by the conditions of this environmental authority must be kept for a minimum of five years, and all monitoring results and underlying raw data must be kept until surrender of this environmental authority.								
P2-H10	All records required by the conditions of this environmental authority must be provided to the administering authority : a) within the timeframe specified by the administering authority; and b) in the format requested by the administering authority.								
P2-H11	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.								
P2-H12	For the purposes of checking conformity with condition P2-E23 of the land application schedule, the holder of this environmental authority must be responsible for the making of determinations of the quality of the contaminants released. Such determinations must be performed for at least the quality characteristics and at least the frequency specified in <i>P2-Table 4</i>. P2-Table 4 <table border="1"> <thead> <tr> <th>Quality Characteristic</th><th>Frequency</th></tr> </thead> <tbody> <tr> <td>5-day Biochemical Oxygen Demand</td><td>Monthly</td></tr> <tr> <td>Chemical Oxygen Demand</td><td>Weekly</td></tr> <tr> <td>pH</td><td>Weekly</td></tr> </tbody> </table>	Quality Characteristic	Frequency	5-day Biochemical Oxygen Demand	Monthly	Chemical Oxygen Demand	Weekly	pH	Weekly
Quality Characteristic	Frequency								
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Chemical Oxygen Demand	Weekly								
pH	Weekly								
P2-H13	The determinations of the quality of contaminants released to check conformity with condition P2-E23 of the land application schedule must be undertaken at the monitoring and in-situ measurement point(s) described as: a) SMP 1: the in-line sampling point of the final effluent balancing storage dam reticulation pump; and b) SMP 2: the overflow from the final effluent polishing and pump-out ponds.								
P2-H14	All determinations of the quality of contaminants required to be monitored under this environmental authority must be made in accordance with methods prescribed in the administering authority's <i>Monitoring and Sampling Manual 2018</i> or more recent editions.								
P2-H15	The daily quantity of contaminants released must be determined by an appropriate and accurate method, for example, a flow meter.								

P2-H16	The holder of this environmental authority must keep records of the volume, date, time of commencement and duration of each occasion on which any release of contaminants is made to the contaminant release areas and the dates on which no such releases take place.																																										
P2-H17	The holder of this environmental authority must design and conduct a Receiving Waters Monitoring Program to monitor the effects of the release of contaminants on the receiving waters .																																										
P2-H18	The parameters to be monitored and the frequency of monitoring in Receiving Waters Monitoring Program shall be in accordance with the parameters and monitoring frequency prescribed in ' <i>Leiner Davis Gelatine (Australia), June 1994, Environmental Management Plan (Draft)</i> ', Section 4.8, or more recent editions or supplements to that document as such become available and approved by the administering authority .																																										
P2-H19	The holder of this environmental authority must conduct a Contaminant Release Area Monitoring Program to monitor the condition of the land to which contaminants are applied.																																										
P2-H20	The parameters to be monitored and the frequency of monitoring in the Contaminant Release Area Monitoring Program must be in accordance with the parameters and monitoring frequency specified in <i>P2-Table 5</i>. P2-Table 5 <table><tr><th>Element</th><th>Sites</th><th>Method</th><th>Frequency</th></tr><tr><td>Soil salinity</td><td>Within soil units 2a, 2b, 2c, 2d, 2e, 3a, and 3b.</td><td>Sampling and analysis for pH (1:5), EC sat, Cl, NO₃, SO₄, Effective CEC, exchangeable Ca, Mg, Na</td><td>Annual</td></tr><tr><td>Soil infiltration and hydraulic conductivity</td><td>Within soil units 2a, 3b, and 2e.</td><td>Field instrumentation</td><td>Annual</td></tr><tr><td>Nutrient status</td><td>Within soil units 2a, 3b, and 2e.</td><td>Soil Sampling and analysis for Total N, NO₃-N, NH₄-N, Acid extractable P</td><td>Biannual</td></tr><tr><td>Groundwater</td><td>Relevant bores with water table within soil units listed above</td><td>Tape measurement and EC. Water laboratory analysis</td><td>Biannual</td></tr><tr><td>Effluent</td><td>Pump out pond outlet</td><td>Water laboratory analysis</td><td>Monthly</td></tr></table> Soil Salinity Monitoring <table><tr><th>Soil units 2a, 2b, 2c, 2d, 3a, 3b, 3d</th><th>Soil solution sampling via Soil core sampling depth 0-120cm.</th><th>Acceptable Limit at 10cm depth</th><th>Acceptable Limit at 50cm depth</th><th>Acceptable Limit at 120cm depth</th><th>Testing Frequency</th></tr><tr><td>pH</td><td>(1:5) solution soil extract</td><td>4.5 – 7.0</td><td>5.5 – 7.5</td><td>6.0 – 8.5</td><td>Annual</td></tr><tr><td>ESP</td><td>Soil</td><td>10</td><td>15</td><td>20</td><td>Annual</td></tr></table>	Element	Sites	Method	Frequency	Soil salinity	Within soil units 2a, 2b, 2c, 2d, 2e, 3a, and 3b.	Sampling and analysis for pH (1:5), EC sat, Cl, NO ₃ , SO ₄ , Effective CEC, exchangeable Ca, Mg, Na	Annual	Soil infiltration and hydraulic conductivity	Within soil units 2a, 3b, and 2e.	Field instrumentation	Annual	Nutrient status	Within soil units 2a, 3b, and 2e.	Soil Sampling and analysis for Total N, NO ₃ -N, NH ₄ -N, Acid extractable P	Biannual	Groundwater	Relevant bores with water table within soil units listed above	Tape measurement and EC. Water laboratory analysis	Biannual	Effluent	Pump out pond outlet	Water laboratory analysis	Monthly	Soil units 2a, 2b, 2c, 2d, 3a, 3b, 3d	Soil solution sampling via Soil core sampling depth 0-120cm.	Acceptable Limit at 10cm depth	Acceptable Limit at 50cm depth	Acceptable Limit at 120cm depth	Testing Frequency	pH	(1:5) solution soil extract	4.5 – 7.0	5.5 – 7.5	6.0 – 8.5	Annual	ESP	Soil	10	15	20	Annual
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	(% calculated from sodium and cation exchange capacity)					
	SAR (Calculated from soil. solution cations Ca++, Mg++ Na+)	Solution	15	20	40	Annual
	EC sat (dS/m)	Solution	3	4	5	Annual
	Cl	Solution	0-150mg/kg	0-450mg/kg	0-600mg/kg	Annual
	NO ₃ ⁺	Solution / soil	120mg/kg	100mg/kg	20mg/kg (soil sample)	Annual
	Total sulphate sulphur	Solution – (includes gypsum precipitate)	4,000mg/L	5,000mg/L	6,000mg/kg (soil sample)	Annual
P2-H21	The holder of this environmental authority must maintain bores for the purpose of sampling and analysing groundwater at the locations shown on Dawson Thompson and Associates Pty Ltd, 4/12/93, 'Sunny Hills' Site Plan, Flood Road Josephville, as submitted with the application.					
P2-H22	The holder of this environmental authority is responsible for ensuring a groundwater monitoring program is performed which complies with the following requirements: a) All determinations required must be made in accordance with methods prescribed in the administering authority's Monitoring and Sampling Manual 2018 or more recent editions. b) Standing water levels must be measured in metres and recorded on each occasion that samples are obtained. Such measurement must be undertaken prior to any disturbance by sampling and must be reported as the depth in metres from the ground level to the water surface within the bore. c) Samples of groundwater must be taken from each of the bores at least twice per annum, at approximately six (6) monthly intervals, d) The samples obtained in accordance with paragraph c) of this condition must be analysed for: i) Electrical conductivity; ii) Sodium; iii) Magnesium; iv) Total Dissolved Solids; v) Total Nitrogen; vi) Sulphate; vii) Carbonic acid; viii) pH; ix) Chloride;					

	x) Calcium; and xi) Total Phosphorus as P.
P2-H23	The holder of this environmental authority must ensure the monitoring data gathered in accordance with this environmental authority is analysed and interpreted, by an expert in the field of each monitoring program, to assess the nature and extent of any environmental impact of the environmentally relevant activity . The data, analyses and assessments must be submitted to the administering authority with each annual return.
P2-H24	The holder of this environmental authority must notify the administering authority in writing of any monitoring result which indicates an exceedance of any environmental authority limit within twenty-eight (28) days of completion of analysis.
P2-H25	The written notification required by condition number P2-H24 must include: a) the analysis results; and b) details of investigation or corrective actions taken; and c) any subsequent analysis.

Part 3 – Organic material processing

Environmentally relevant activity	Location
ERA 53 - Organic material processing: Processing more than 200t of organic material in a year - (a) by composting the organic material	Lot 3 CP862699

The environmentally relevant activity conducted at the location as described above must be conducted in accordance with *Part 1 – General conditions for all activities*, and the following site-specific conditions of approval.

Condition number	Condition
Schedule: Air	
P3-B1	The release of noxious or offensive odours or any other noxious or offensive airborne contaminants resulting from the activity must not cause an environmental nuisance at any odour sensitive place.
P3-B2	The release of dust and/or particulate matter resulting from the activity must not cause an environmental nuisance at any dust sensitive place.
P3-B3	When requested by the administering authority, dust and particulate monitoring must be undertaken to investigate any complaint of environmental nuisance caused by dust and/or particulate matter, and the results notified within 14 days to the administering authority following completion of monitoring. Monitoring must be carried out at a place(s) relevant to the potentially affected dust sensitive place and at upwind control sites and must include: a) For a complaint alleging dust nuisance, dust deposition; and b) For a complaint alleging adverse health effects caused by dust, the concentration per cubic metre of particulate matter with an aerodynamic diameter of less than 10 micrometres (PM₁₀) suspended in the atmosphere over a 24 hour averaging time.
P3-B4	The holder of this approval must ensure all reasonable and practicable measures necessary are taken to prevent spillage and/or loss of particulate matter or wind blown dust from truck(s) used for transporting material to and from the place to which this approval relates. Reasonable and practicable measures may include, but are not limited to: a) Wetting down the load prior to transport; b) Having the entire load covered with a tarpaulin or similar material for the duration of transport; and c) Clearing of spillage from side rails, tail gates and draw bars of truck(s) prior to departure from the licensed place and prior to departure from the premises to which the lead have been delivered.
P3-B5	The tailgates of all truck(s) leaving the premises must be securely fixed prior to loading and immediately after unloading to prevent loss of materials.

P3-B6	Truck(s) transporting material to/from the place to which this approval relates must be covered immediately after loading to prevent wind-blown releases and spillage. The covering must be maintained until immediately before unloading of the truck(s).
Schedule: Water	
P3-C1	Contaminants must not be released from the composting site to any waters or the bed and banks of any waters.
P3-C2	There must be no release of stormwater runoff that has been in contact with any contaminants at the composting site to any stormwater drain or receiving waters (including groundwaters).
P3-C3	Any leachate and stormwater runoff which has been in contact with regulated waste material or composted waste materials on the place to which this approval related, must not be released to any stormwater drain or receiving waters (including groundwaters).
P3-C4	All leachate and contaminated stormwater collected from the mixing pad area of the waste composting facility must be discharged to the wastewater treatment ponds.
P3-C5	A system of effective diversion drains must be constructed and maintained to divert surface waters away from the designated waste composting facility.
P3-C6	The maintenance and cleaning of vehicles and any other equipment or plant used in the waste composting process must be carried out in areas from where contaminants cannot be released into any stormwater drainage system or receiving waters (including groundwaters).
P3-C7	Any spillage of wastes, contaminants or other materials must be cleaned up as quickly as practicable. Such spillages must not be cleaned up by hosing, sweeping or otherwise releasing such wastes, contaminants or material to any stormwater drainage system or receiving waters (including groundwaters).
P3-C8	The integrity of the impervious clay base and bunded perimeter of the composting processing area must be maintained by regular examination.
P3-C9	All loading / unloading of bulk materials must take place only within designated vehicle leading / unloading areas of the waste composting facility.
P3-C10	All bunding must be constructed and maintained so as to be sufficiently impervious to allow retention and recovery of any materials being held within the bund on the clay base.
Schedule: Noise	
P3-D1	Noise from composting activities must not cause an environmental nuisance at any noise-affected premises.
P3-D2	When requested by the administering authority, noise monitoring must be undertaken to investigate any complaint of environmental nuisance, arising from composting operations on site, and the results notified within 14 days to the administering authority. Monitoring must include: a) L_A 10, adj, 10 mins; b) L_A 1, adj, 10 mins; c) The level and frequency of occurrence of impulsive or tonal noise; d) Atmospheric conditions including wind speed and direction; e) Effects due to extraneous factors such as tragic noise; and

	f) Location, date and time of recording.
P3-D3	The method of measurement and reporting of noise levels must comply with the latest edition of the <i>Noise Measurement Manual</i> of the administering authority.
P3-D4	The entry and/or departure of heavy vehicles used to carry composting materials, must only be carried out between the hours of: a) 6:00 am and 11:00 pm Mondays to Fridays; b) 7:00 am and 6:00 pm Saturday, Sundays and public holidays.
Schedule: Waste	
P3-E1	Only the following waste materials are permitted to be used in the composting operation: skutch, belt-press sludge, green waste, sawdust (from timber free of chemical preservatives / treatment).
P3-E2	Records of the source, volumes and composition of all waste types used in the composting process at the premises must be maintained and these values reported to the administering authority in each following annual return for the site.
P3-E3	Where regulated waste is removed from the place to which this approval relates, the holder of this approval must monitor and record the following: a) The date, quantity and type of waste removed; b) Name of the waste transporter and/or disposal operator that removed the waste; and c) The intended treatment/disposal destination of the waste. NOTE: Records of documents maintained in compliance with a waste tracking system established under the <i>Environmental Protection Act 1994</i> or any other law for regulated waste will be deemed to satisfy this condition.
P3-E4	Regulated waste must not be sent for disposal at any facility without the written approval of the person operating that facility.
Schedule: Land	
P3-F1	Except as otherwise provided by the conditions of this approval, the environmentally relevant activities must be carried out by all reasonable and practicable means necessary to prevent the release or likelihood of release of contaminants to land.
P3-F2	Notwithstanding condition P3-F1, the composted material may be applied to land for the purpose of soil conditioning or fertilising.
Schedule: Community	
P3-G1	All complaints received must be recorded including investigations undertaken, conclusions formed and actions taken. This information must be made available to the administering authority on request.
P3-G2	In consultation with the administering authority, cooperate with and participate in any community environmental liaison committee established in respect of either the site specifically, or the industrial estate / area where the site is located.

P3-G3	All complaints received by the holder of this approval relating to operations at the place to which this approval relates must be recorded and include the following details: a) Time, date and nature of complaint; b) Type of communication; c) Name, contact address and contact telephone number of complainant, where possible, (Note: if the complainant does not wish to be identified then "Not identified" is to be recorded); d) Response and investigation undertaken as a result of the complaint; e) Name of person responsible for investigating complaint; and f) Action taken as a result of the complaint investigation and signature of responsible person.
P3-G4	The complaints record required by condition number P3-G3 must be maintained for a period of not less than five (5) years.
P3-G5	A record must be maintained of events including but not limited to: a) The time date and duration of equipment malfunctions that may affect the environmental performance of the place to which this approval relates; and b) The hours of operation of the plant when these events have occurred.
P3-G6	The record required by condition P3-G5 must be maintained for a period of not less than five (5) years.
P3-G7	As soon as practicable after becoming aware of any emergency or incident which results in the release of contaminants not in accordance, or reasonably expected to be not in accordance with the conditions of this approval, the holder of this approval must notify the administering authority of the release by telephone, or email.
P3-G8	The notification of emergencies or incidents as required by condition number P3-G7 must include by not be limited to the following: a) The holder of the approval; b) The location of the emergency or incident; c) The number of the approval; d) The name and telephone number of the designated contact person; e) The time of the release; f) The time the holder of the approval become aware of the release; g) The suspected cause of the release; h) The environmental harm and or environmental nuisance caused, threatened, or suspected to be caused by the release; and i) Actions taken to prevent any further release and to mitigate any environmental harm or environmental nuisance caused by the release.

P3-G9	Not more than 14 days following the initial notification of an emergency or incident, the holder of the approval must provide written advice of the information supplied in accordance with condition number P3-G8 in addition to: a) Proposed actions to prevent a reoccurrence of the emergency or incident; and b) Outcomes of actions taken at the time to prevent or minimise environmental harm.
P3-G10	As soon as practicable, but not more than six (6) weeks following the conduct of any environmental monitoring performed in relation to the emergency or incident, the holder of the approval must provide written advice of the results of any such environmental monitoring performed.
P3-G11	The holder of this approval must ensure that all complaints and results of all monitoring performed in accordance with conditions of this approval for the period covered by the annual return are submitted with the Annual Return.

Part 4 – Effluent irrigation to Sandy Creek Farm

Environmentally relevant activity	Location
ERA 25 - Meat Processing 3: Rendering, without any other processing, in a year, the following quantity of meat or meat products (b) more than 500t	Lot 2 RP32191
ERA 63 - Sewage Treatment 1: Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of (a-i) 21 to 100EP if treated effluent is discharged from the works to an infiltration trench or through an irrigation scheme	

The environmentally relevant activities conducted at the location as described above must be conducted in accordance with *Part 1 – General conditions for all activities*, and the following site-specific conditions of approval.

Agency interest: General	
Condition number	Condition
P4-A1	The only part of the activities authorised under <i>Part 4 – Effluent irrigation to Sandy Creek Farm</i> of this environmental authority is effluent irrigation to land and associated monitoring and management.
Schedule: Air	
P4-B1	Odours or airborne contaminants from the activity must not cause environmental nuisance to any sensitive place or commercial place .
P4-B2	Effluent spray must not move beyond the Effluent Disposal Area .
P4-B3	Effluent must only be released to the Effluent Disposal Area via an irrigator(s) that releases an irrigation plume of greater than 6 metres in radius.
Schedule: Noise	
P4-C1	Noise generated by the activity must not cause environmental nuisance to any sensitive place or commercial place .
Schedule: Waste	
P4-D1	All waste generated in carrying out the activity must be lawfully reused, recycled or lawfully removed to a facility that can lawfully accept the waste.
Schedule: Land	
P4-E1	Contaminants generated by the activity must only be released to the Effluent Disposal Area shown in <i>Appendix 1 – Site Plan</i> .
P4-E1.1	Contaminants generated by the activity must not be released to the Effluent Disposal Area after <i>1 April 2026</i> .
P4-E2	Contaminants generated by the activity must only be released to the Effluent Disposal Area until <i>1 April 2026</i> , where the following requirements are complied with:

- a) the release limits for each quality characteristic are complied with at the **monitoring** locations and timing as specified in *P4 - Table 1 – Contaminant limits for releases to land*; and
- b) releases are **monitored** at all **monitoring** locations and at the minimum **monitoring** frequency for each quality characteristic specified in *P4 - Table 1 – Contaminant limits for releases to land*.

P4 - Table 1 - Contaminant limits for releases to land

Monitoring location	Timing	Quality characteristic (units)	Release limits			Minimum monitoring frequency
			Minimum	Mean Refer to P4-E5	Maximum	
Flow gauge / metre reading Outflow of the balance storage dam (pump shed) GPS coordinates -28.0204, 152.9287	At all times	Irrigation volume (L/day)	-	< 470,000	7,050,000	Daily
		Irrigation rate (mm/day)	-	-	30	Daily
		Total Phosphorus TP (mg/L as P)	-	< 30	-	Quarterly
		pH (pH units)	6	-	8.5	Quarterly
		Total Nitrogen TN load (kg/ha/month)	-	< 50	-	Monthly
		Total Nitrogen TN (mg/L as N)	-	< 160	-	Monthly
		Electrical Conductivity (EC) (µS/cm)	-	< 8,050	10,000	Fortnightly

P4-E3	Monitoring required by condition P4-E2 must be undertaken when effluent is being disposed, unless effluent disposal has ceased for longer than the relevant parameters specified minimum frequency (e.g., if pH was only required to be monitored once a week, then a pH sample would not be required after the first week following cessation of the release).
P4-E4	The irrigation rate monitoring required by condition P4-E2 must be calculated based on the total area irrigated on that day, and the actual volume of effluent irrigated on that same day.
P4-E5	Mean calculations required by condition P4-E2 must be calculated from 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 <i>P4 - Table 1 - Contaminant limits for releases to land</i> .
P4-E6	Volume monitoring required by condition P4-E2 must be undertaken using a flow meter.
P4-E7	Total Nitrogen TN load calculation required by condition P4-E2 must be calculated using the formula: $((Total\ volume\ irrigated\ in\ the\ month \div 23.5) \times Total\ Nitrogen\ concentration\ monitored\ in\ the\ month\ in\ mg/L) \div 1,000,000$ Note the following example: $((7,200,000\ L\ irrigated\ in\ the\ month \div 23.5) \times 155mg/L\ Total\ Nitrogen\ in\ the\ month) \div 1,000,000 = (306,383\ L/ha/month \times 155mg/L) \div 1,000,000$

	$= 47,489,362 \text{ mg/ha/month} \div 1,000,000$ $= 47.49 \text{ kg/ha/month}$
P4-E8	The Effluent Disposal Area must have a minimum surface area of 235,000 m ² .
P4-E9	When soil in the Effluent Disposal Area is saturated , effluent must not be released to land.
P4-E10	All organic material removed from vegetation growing in the Effluent Disposal Area must be transported and disposed of in an area other than in the Effluent Disposal Area .
P4-E11	Ponding of effluent within the Effluent Disposal Area must not occur.
P4-E12	Contaminants must not run off to areas beyond the Effluent Disposal Area .
P4-E13	Soil structure must not be degraded as a result of the activity .
P4-E14	The Effluent Disposal Area must be vegetated and maintained with Rhodes grass in a viable state .
P4-E15	Livestock must be excluded from the Effluent Disposal Area and the riparian vegetation buffer at all times.
P4-E16	A 20-metre wide riparian vegetation buffer must be planted by 31 July 2024 and maintained between the Effluent Disposal Area and Sandy Creek, and at locations identified within Appendix 1 – Site Plan, as 'Riparian Restoration'.
Schedule: Vegetation Monitoring	
P4-F1	By 20 March 2024 a Vegetation Monitoring Program (VMP) must be: - designed by an appropriately qualified person to monitor the effects of the activity on the vegetation within the Effluent Disposal Area; and - reviewed annually by an appropriately qualified person and endorsed as being appropriate to monitor the effects of the activity on the vegetation within the Effluent Disposal Area.
P4-F2	The VMP must include quarterly monitoring that includes: - visual monitoring of vegetation within the Effluent Disposal Area; and monitoring of indicators for salinity stress, nutrient toxicities and deficiencies; and - representative photographs of vegetation within the Effluent Disposal Area; and - a calculation of the total percentage of vegetation cover in a viable state over the Effluent Disposal Area; and Total Nitrogen load in kg/month of organic material that was harvested and removed from the Effluent Disposal Area; and - a comparison of results of the monitoring undertaken with previous monitoring, including (photo)graphical representations showing relevant limits, and trends.
P4-F3	If a calculation made under the VMP demonstrates that the percentage of vegetation cover in a viable state within the Effluent Disposal Area is below 85%: within 10 business days of that calculation being made, recommended action(s) to restore at least 85% of the vegetation cover to a viable state in the Effluent Disposal Area must be prepared by an appropriately qualified person, unless the vegetation cover is below 85% due to a routine harvest; and

	b) within 20 business days of receiving those recommended action(s), measures must be taken to implement the recommended action(s), or a different timeframe for taking such action(s) agreed to in writing by the administering authority .												
P4-F4	The VMP must be submitted to the administering authority upon request and within a timeframe specified (which must not be less than 2 business days) by the administering authority .												
P4-F5	Any comments made by the administering authority on the VMP must be addressed to the reasonable satisfaction and within a timeframe specified (which must not be less than 5 business days) by the administering authority .												
P4-F6	A report summarising the results of the VMP (VMP Report) must be prepared by an appropriately qualified person and submitted to the administering authority with the Annual Monitoring Report as required under condition P1-A19.												
P4-F7	The VMP Report required by P4-F6 must include: a) a summary of the previous 12 months monitoring data obtained under the VMP; and b) an evaluation of all relevant data obtained under the VMP, including all relevant historical data and any data trends; and c) a description of all actions taken to improve the viable state of vegetation in the Effluent Disposal Area in response to a requirement under condition P4-F3.												
Schedule: Land Monitoring													
P4-G1	By 20 March 2024 a land monitoring program (LMP) must be: a) designed by an appropriately qualified person to monitor the effects of the activity on land ; and b) reviewed annually by an appropriately qualified person and endorsed as being appropriate to monitor the effects of the activity on land .												
P4-G2	The LMP required must include: a) taking soil samples at a soil depth range of 0-20cm, 20-40cm, 40-60cm, 100-120cm and 160-180cm from monitoring locations specified in <i>P4 - Table 2 – Land Monitoring Plan</i>, and at least one reference location; and b) monitoring at the monitoring locations, and at the minimum monitoring frequency, and for the quality characteristics specified in <i>P4 – Table 2 – Land Monitoring Plan</i>. P4 - Table 2 – Land Monitoring Plan <table><tr><th>Monitoring locations</th><th>Quality characteristic (units)</th><th>Minimum monitoring frequency</th></tr><tr><td rowspan="6">At least one reference site, and representative locations within the Effluent Disposal Area.</td><td>Soil texture class</td><td>Within 20 business days after this environmental authority takes effect</td></tr><tr><td>Emerson aggregate stability test</td><td rowspan="5">Before 30 November 2023, and every year thereafter</td></tr><tr><td>pH (pH units)</td></tr><tr><td>Total nitrogen (mg/kg)</td></tr><tr><td>Nitrate (mg/kg)</td></tr><tr><td>Colwell phosphorus (mg/kg)</td></tr></table>	Monitoring locations	Quality characteristic (units)	Minimum monitoring frequency	At least one reference site, and representative locations within the Effluent Disposal Area .	Soil texture class	Within 20 business days after this environmental authority takes effect	Emerson aggregate stability test	Before 30 November 2023, and every year thereafter	pH (pH units)	Total nitrogen (mg/kg)	Nitrate (mg/kg)	Colwell phosphorus (mg/kg)
Monitoring locations	Quality characteristic (units)	Minimum monitoring frequency											
At least one reference site, and representative locations within the Effluent Disposal Area .	Soil texture class	Within 20 business days after this environmental authority takes effect											
	Emerson aggregate stability test	Before 30 November 2023, and every year thereafter											
	pH (pH units)												
	Total nitrogen (mg/kg)												
	Nitrate (mg/kg)												
	Colwell phosphorus (mg/kg)												

		Electrical Conductivity 1:5 (EC) (µS/cm)	
		Exchangeable sodium percentage (%)	
P4-G3	The LMP required by condition P4-G2 must include observations recorded at the time soil samples are taken, that record the extent to which there is evidence of: a) effluent disposal induced surface runoff occurring to areas outside the Effluent Disposal Area ; and b) surface ponding of effluent occurring.		
P4-G4	The LMP required by condition P4-G2 must include: a) the development of trigger values ; and b) the development of management actions to mitigate any adverse impacts caused, or likely to be caused, by the activity ; and c) the implementation of the management actions if an LMP trigger value is reached.		
P4-G5	The LMP required by condition P4-G2 must be submitted to the administering authority upon request, and within a timeframe specified (which must be at least 2 business day) by the administering authority .		
P4-G6	Any comments made by the administering authority on the LMP must be addressed to the reasonable satisfaction of, and within a timeframe specified (which must be at least 5 business days) by the administering authority .		
P4-G7	A report summarising the results of the LMP (LMP Report) must be prepared by an appropriately qualified person and submitted to the administering authority with the Annual Monitoring Report as required under P1-A19.		
P4-G8	The LMP Report required by condition P4-G7 must include: a) a summary of the monitoring data obtained under the LMP in the relevant financial year; and b) an evaluation of all relevant data obtained under the LMP, and include graphical representations showing all relevant historical data and a comparison of data trends against LMP trigger values ; and c) a description of all actions taken to minimise the environmental risk in response to information obtained through the LMP, including actions taken where trigger values in the LMP were reached; and d) the results of those management actions.		
P4-G9	The LMP Report required by condition P4-G7 must include analysis and interpretation of monitoring results by an appropriately qualified person that determines: a) the ongoing capacity of the Effluent Disposal Area to sustainably receive contaminant releases from the activity , including but not limited to the capacity of the Effluent Disposal Area to sustainably adsorb nutrients from the activity ; and b) whether the Effluent Disposal Area is sufficient in size for the volume of effluent disposed of to it; and		

	c) whether the irrigation regime is leaching salts below the rootzone of the Rhodes grass in the Effluent Disposal Area; and d) whether contaminants generated by the activity have migrated beyond the Effluent Disposal Area; and e) how the soil in the Effluent Disposal Area has been impacted by the activity, including but not limited to an assessment of the build-up of salinity and sodicity in the soil.								
P4-G10	The LMP Report required by condition P4-G7 must include recommended action(s) to mitigate any adverse impacts caused, or likely to be caused, by the activity in respect of contaminant releases to land .								
P4-G11	Any action(s) recommended under condition P4-G10 in the LMP Report must be undertaken: a) as soon as practicable, but no later than 10 business days after receiving the LMP Report; or b) another period agreed to in writing by the administering authority.								
Schedule: Water									
P4-H1	Other than as permitted within this environmental authority, contaminants must not be released to any waters .								
P4-H2	By 20 March 2024 a water receiving environment monitoring program (WREMP) must be: a) designed by an appropriately qualified person with experience and qualifications in water monitoring, to monitor the effects of the activity on waters; and b) reviewed annually by an appropriately qualified person and endorsed as being appropriate to monitor the effects of the activity on waters.								
P4-H3	The WREMP required by condition P4-H2 must include: a) clearly stated aims and objectives; and b) a monitoring program that is developed using the latest version of the administering authority's Receiving Environment Monitoring Program Guideline (ESR/2016/2399), and specify: i) environmental values of the receiving waters; and ii) cumulative impacts on the receiving waters; and iii) the spatial extent of the monitoring program, including the location of monitoring sites; and iv) the temporal context of the monitoring program, including the timing and frequency for sampling.								
P4-H4	The WREMP required by condition P4-H2 must include: a) monitoring of the receiving environment at the monitoring location(s), and at the minimum monitoring frequency, and for the quality characteristics specified in <i>P4 - Table 3 – Water Receiving Environment Monitoring Program</i>. P4 - Table 3 – Water Receiving Environment Monitoring Program <table><tr><th>Monitoring locations</th><th>Quality characteristic (units)</th><th>Minimum monitoring frequency</th></tr><tr><td rowspan="3">Identified as 'Surface Water-Monitoring Locations' within Appendix 1 – Site Plan</td><td>BOD₅ (mg/L)</td><td rowspan="3">Monthly, and daily on every first flush</td></tr><tr><td>Total Suspended Solids (mg/L)</td></tr><tr><td>Ammonia (mg/L)</td></tr></table>	Monitoring locations	Quality characteristic (units)	Minimum monitoring frequency	Identified as 'Surface Water-Monitoring Locations' within Appendix 1 – Site Plan	BOD ₅ (mg/L)	Monthly, and daily on every first flush	Total Suspended Solids (mg/L)	Ammonia (mg/L)
Monitoring locations	Quality characteristic (units)	Minimum monitoring frequency							
Identified as 'Surface Water-Monitoring Locations' within Appendix 1 – Site Plan	BOD ₅ (mg/L)	Monthly, and daily on every first flush							
	Total Suspended Solids (mg/L)								
	Ammonia (mg/L)								

	<table> <tr> <td>Electrical Conductivity (EC) (µS/cm)</td><td></td></tr> <tr> <td>Total Nitrogen TN (mg/L)</td><td></td></tr> <tr> <td>pH (pH units)</td><td></td></tr> <tr> <td>Dissolved Oxygen (mg/L)</td><td></td></tr> <tr> <td>Stream flow rate (m/s)</td><td>From 30 November 2023 - Monthly, and daily on every first flush</td></tr> </table>	Electrical Conductivity (EC) (µS/cm)		Total Nitrogen TN (mg/L)		pH (pH units)		Dissolved Oxygen (mg/L)		Stream flow rate (m/s)	From 30 November 2023 - Monthly, and daily on every first flush
Electrical Conductivity (EC) (µS/cm)											
Total Nitrogen TN (mg/L)											
pH (pH units)											
Dissolved Oxygen (mg/L)											
Stream flow rate (m/s)	From 30 November 2023 - Monthly, and daily on every first flush										
P4-H5	The WREMP required by condition P4-H2 must be designed to monitor the effects of the activity on the receiving environment and while effluent is being discharged from the site that includes: a) monitoring at control locations that are suitable for establishing a background or other referable environmental value for the receiving waters; and b) monitoring at test locations that are suitable for determining the extent to which the receiving waters are, or are potentially, being impacted by the activity; and c) a description of flow conditions at the time of monitoring; and d) monitoring on a first flush to sample water quality at times when surface water contamination from runoff and subsurface releases from the Effluent Disposal Area are likely.										
P4-H6	The WREMP required by condition P4-H2 must include: a) the development of trigger values for the receiving waters; and b) procedures to determine when trigger values are reached; and c) the development of management actions to mitigate any adverse impacts caused, or likely to be caused, the activity; and d) the implementation of the management actions if a WREMP trigger value is reached.										
P4-H7	The WREMP required by condition P4-H2 must be submitted to the administering authority upon request and within a timeframe specified (which must be at least 1 business day) by the administering authority.										
P4-H8	Any comments made by the administering authority on the WREMP must be addressed to the reasonable satisfaction and within a timeframe specified (which must be at least 5 business days) by the administering authority										
P4-H9	A report summarising the results of the WREMP (WREMP Report) must be prepared by an appropriately qualified person and submitted to the administering authority with the Annual Monitoring Report as required under condition P1-A19.										
P4-H10	The WREMP Report required by condition P4-H9 must include: a) a summary of the previous 12 months monitoring data obtained under the WREMP in the relevant financial year; and b) an evaluation of all relevant data obtained under the WREMP, including graphical representations showing all historical data and a comparison of data trends against WREMP trigger values; and c) a description of all actions taken to minimise the environmental risk in response to data or other information obtained during from the WREMP, including actions taken where WREMP trigger values were reached; and										

	d) the results of those management actions.
P4-H11	The WREMP Report required by condition P4-H9 must include analysis and interpretation of the data and other information obtained through the implementation of the WREMP that determines: a) the ongoing capacity of the receiving waters to sustainably receive contaminant releases from the activity, including but not limited to the capacity of the receiving waters to sustainably assimilate nutrient loads from the activity; and b) how the receiving waters have been impacted by the activity.
P4-H12	The WREMP Report required by condition P4-H9 must include recommended action(s) to mitigate any adverse impacts caused, or likely to be caused, by the activity in respect of contaminant releases to surface waters .
P4-H13	The action(s) required under condition P4-H12 in the WREMP Report must be undertaken: a) as soon as practicable, but no more than 10 business days after receiving the WREMP monitoring report; or b) another period agreed to in writing by the administering authority.
Schedule: Groundwater	
P4-I0	Drainage of: a) salts to groundwater and subsurface flows of salts to surface waters from the activity must be minimised; and b) Total Nitrogen TN to groundwater and subsurface flows of Total Nitrogen TN to surface waters from the activity must be prevented.
P4-I1	By 20 March 2024 a groundwater monitoring program (GWMP) must be: a) designed by an appropriately qualified person(s) with experience and qualifications in groundwater monitoring, to monitor the effects of the activity on groundwaters; and b) reviewed annually by an appropriately qualified person(s) and endorsed as being appropriate to monitor the effects of the activity on groundwaters.
P4-I2	The GWMP required by condition P4-I1 must include: a) clearly stated aims and objectives; and b) a monitoring program that is developed using the latest version of the administering authority's guideline <i>Using monitoring data to assess groundwater quality and potential environmental impacts</i>, and that specifies: i) groundwater flow characteristics for the groundwater that could be impacted by the activity (potentially impacted GW), including a hydraulic gradient, groundwater flow rates; and ii) surface waters that could interact with potentially impacted GW (potentially impacted SW); and iii) the environmental values of the potentially impacted GW and the potentially impacted SW; and iv) cumulative impacts on the potentially impacted GW; and v) the spatial extent of the monitoring program, including the location of monitoring bores required under condition P4-I3; and vi) the temporal context of the monitoring program, including timing and frequency of sampling.

P4-I3	An appropriately qualified person(s) must install groundwater monitoring bores that enable monitoring from: a) the uppermost aquifer; and b) control location(s) that are suitable for establishing a background or other referable environmental value for the potentially impacted GW; and c) test location(s) that are suitable for determining the extent to which the potentially impacted GW are, or are potentially, being impacted by the activity ; and d) for potentially impacted GW, hydraulically up-gradient bore(s) and hydraulically down-gradient bore(s) of the activity .											
P4-I4	Monitoring under the GWMP, must include: a) monitoring of the receiving environment at the monitoring location(s), and at the minimum monitoring frequency, and for the quality characteristics specified in <i>P4 - Table 4 – Groundwater Monitoring Program</i>. P4 - Table 4 – Groundwater Monitoring Program <table><tr><th>Monitoring locations</th><th>Quality characteristic (units)</th><th>Minimum monitoring frequency</th></tr><tr><td rowspan="6">At least one reference site outside of the Effluent Disposal Area, and representative locations within the Effluent Disposal Area.</td><td>pH</td><td rowspan="6">Quarterly</td></tr><tr><td>Electrical Conductivity (µS/cm)</td></tr><tr><td>Total Nitrogen TN (mg/L)</td></tr><tr><td>Ammonia (mg/L)</td></tr><tr><td>Calcium, Chloride, Potassium, Magnesium, Sodium, Sulphate, Bicarbonate, and Carbonate (mg/L)</td></tr><tr><td>Standing groundwater level (m)</td></tr></table>	Monitoring locations	Quality characteristic (units)	Minimum monitoring frequency	At least one reference site outside of the Effluent Disposal Area , and representative locations within the Effluent Disposal Area .	pH	Quarterly	Electrical Conductivity (µS/cm)	Total Nitrogen TN (mg/L)	Ammonia (mg/L)	Calcium, Chloride, Potassium, Magnesium, Sodium, Sulphate, Bicarbonate, and Carbonate (mg/L)	Standing groundwater level (m)
Monitoring locations	Quality characteristic (units)	Minimum monitoring frequency										
At least one reference site outside of the Effluent Disposal Area , and representative locations within the Effluent Disposal Area .	pH	Quarterly										
	Electrical Conductivity (µS/cm)											
	Total Nitrogen TN (mg/L)											
	Ammonia (mg/L)											
	Calcium, Chloride, Potassium, Magnesium, Sodium, Sulphate, Bicarbonate, and Carbonate (mg/L)											
	Standing groundwater level (m)											
P4-I5	The GWMP required by condition P4-I1 must include: a) the development of trigger values for the potentially impacted GW; and b) procedures to determine when trigger values are reached; and c) the development of management actions to mitigate any adverse impacts caused, or likely to be caused, by the activity ; and d) the implementation of the management actions if an GWMP trigger value is reached.											
P4-I6	The GWMP required by condition P4-I1 must be submitted to the administering authority upon request and within a timeframe specified (which must be at least 1 business day) by the administering authority .											
P4-I7	Any comments made by the administering authority on the GWMP must be addressed to the reasonable satisfaction and within a timeframe specified (which must be at least 5 business days) by the administering authority .											
P4-I8	A report summarising the results of the GWMP (GWMP Report) must be prepared by an appropriately qualified person(s) and submitted to the administering authority with the Annual Monitoring Report as required under condition P1-A19.											

P4-I9	The GWMP Report required by condition P4-I8 must include: a) a summary of the monitoring data obtained under the GWMP in the relevant financial year; and b) an evaluation of all relevant data obtained under the GWMP, including graphical representations showing all relevant historical data and a comparison of data trends against the GWMP trigger values; and c) a description of all actions taken to minimise the environmental risk in response to data or other information obtained during the GWMP, including actions taken where GMPW trigger values were reached; and d) the results of those management actions.
P4-I10	The GWMP Report required by condition P4-I8 must include analysis and interpretation of monitoring results by an appropriately qualified person that determines: a) whether any deep drainage of contaminants from the activity into groundwater has occurred; and b) how the groundwater has been impacted by the activity; and c) whether impacts on groundwater have resulted in impacts to surface waters where there is connectivity of groundwater with surface waters.
P4-I11	The GWMP Report required by condition P4-I8 must include recommended action(s) to mitigate any adverse impacts caused, or likely to be caused, by the activity in respect of potentially impacted GW.
P4-I12	Any action(s) recommended by the GWMP Report must be undertaken: a) as soon as practicable, and no more than 10 business days after receiving the GWMP monitoring report; or b) another period agreed to in writing by the administering authority.

Definitions

Key terms and/or phrases bolded in this environmental authority are defined in this section. Where a term is not defined, the definition in the it has the meaning given to it in (in order of priority):

- the *Environmental Protection Act 1994* (EP Act), its regulations or its environmental protection policies;
- the *Acts Interpretation Act 1954*;
- the Macquarie Dictionary (taking account of the context in which the word or phrase is used in this document).

For example, environmental value, environmental harm, environmental nuisance, material environmental harm are defined in the EP Act and groundwater is defined in the Environmental Protection Regulation 2019.

Defined words or phrases in the singular include the plural and vice versa.

Activity means the environmentally relevant activity(ies) to which the relevant part of the environmental authority relates. An activity may be undertaken on the whole or a part of a site.

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

Appropriately qualified person means a person or persons who has professional qualifications, training, skills and experience relevant to the environmental authority (EA) requirements and can give authoritative assessment, advice and analysis in relation to the EA requirements using the relevant protocols, standards, methods and/or literature.

BOD₅ means the 5-day biochemical oxygen demand determined using standard tests (e.g., those used by NATA laboratories). This test is not inhibited for nitrification, otherwise would be referred to as “carbonaceous” BOD.

Commercial place means a place used as a workplace, an office or for business or commercial purposes and includes a place within the curtilage of such a place reasonably used by persons at that place.

Complaints means an expression of dissatisfaction, concern or report, whether written or verbal, about the **activity** and/or its impact on the environment.

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

Down-gradient bore means a bore, in a location hydraulically down gradient from those aspects of the activity that may affect groundwater quality.

Effluent Disposal Area referenced in Part 4 of this environmental authority means the areas identified as ‘Irrigation Area’ in *Appendix 1 – Site Plan*.

Effluent gases includes gaseous emissions as well as vapours.

Electrical Conductivity 1:5 (EC) means the electrical conductivity measured from a settled mixture of 1 part soil and 5 parts deionized water.

First flush means any day where there was/is sufficient rain to cause surface run-off or subsurface seepage from the **Effluent Disposal Area**, and there was no first flush monitoring event undertaken within the previous 28 days.

Flow conditions means the watercourse processes associated with the hydrograph, including baseflow, rising limb, peak, falling limb / recession.

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

Ha means hectare which is an area measurement equal to 10,000 square metres.

Irrigation regime includes the irrigation timing, rate of application and diluting with potable water.

Land means land excluding **waters** and the atmosphere.

L_A 10, adj, 10 mins means the A-weighted sound pressure level, (adjusted for tonal character and impulsiveness of the sound) exceeded for 10% of any 10 minute measurement period, using Fast response.

L_A 1, adj, 10 mins means the A-weighted sound pressure level, (adjusted for tonal character and impulsiveness of the sound) exceeded for 1% of any 10 minute measurement period, using Fast response.

L_A max, adj, T means the average maximum A-weighted sound pressure level, adjusted for noise character and measured over any 10 minute measurement period, using Fast response.

Livestock means any domesticated animal, and includes sheep, pigs, goats, cattle, deer, buffalo and camels.

Mean is the sum of a collection of numbers divided by the count of numbers in the collection.

E.g., $(n_1+n_2+n_3)/3$.

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

Monitor, monitored and monitoring means monitoring the impact of an **activity** on the receiving environment and includes analysing, assessing, examining, inspecting, measuring, modelling or reporting any of the following matters—

- (a) the quantity, quality, characteristics, timing and variability of the release of any contaminant; and
- (b) the effectiveness of any control measure; and
- (c) the characteristics of, and impact on, the receiving environment.

Person means an individual and a corporation, as per section 32D of the *Acts Interpretation Act 1954*.

Raw materials building means the building containing the raw materials area, acidulators and by products area and the alkali treatment area.

Records include breach notifications, written procedures, analysis results, monitoring reports and monitoring programs required under a condition of this authority.

Release of a contaminant into the environment or release 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.

Riparian vegetation buffer means an area designed and implemented by an **appropriately qualified person** that:

- (a) screens all effluent spray that may drift from the **Effluent Disposal Area** towards Sandy Creek; and
- (b) has a minimum of 80% vegetated ground cover; and
- (c) provides stability of the bank of Sandy Creek; and

(d) is able to uptake nutrients that are expected to drain from the **Effluent Disposal Area** to Sandy Creek.

Note: the following resources provide guidance for designing and implementing the vegetated buffer:

- (i) Queensland River Rehabilitation Management Guideline, WetlandInfo:
<https://wetlandinfo.des.qld.gov.au/wetlands/management/rehabilitation/guideline.html>
- (ii) Aquatic Ecosystem Rehabilitation Process, WetlandInfo:
<https://wetlandinfo.des.qld.gov.au/wetlands/management/rehabilitation/rehab-process/>
- (iii) Vegetated buffers and swales, WetlandInfo:
<https://wetlandinfo.des.qld.gov.au/wetlands/management/treatment-systems/for-agriculture/treatment-sys-nav-page/vegetated-buffers/#prettyPhoto>
- (iv) Creek Erosion Field Guide, Part 3 – Bank Stabilisation:
<https://www.catchmentsandcreeks.com.au/docs/Creek-Erosion-Part-3-print.pdf>

Saturated means the soil moisture level is greater than the soil field capacity. Field capacity means the amount of water retained in soil when the soil has been allowed to drain for 24hrs under normal gravity conditions.

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 places:

- (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 a medical centre or hospital; or
- (d) a protected area under the *Nature Conservation Act 1992*, the *Marine Parks Act 2004* or a World Heritage Area; or
- (e) a public park or garden; or
- (f) for noise, a place defined as a sensitive receptor for the purposes of the Environmental Protection (Noise) Policy 2019; or
- (g) the area within the curtilage of any of the above places.

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.

Trigger values are physicochemical, biological, or other parameter-specific measurement values used to indicate where an environmental value is at risk of environmental harm.

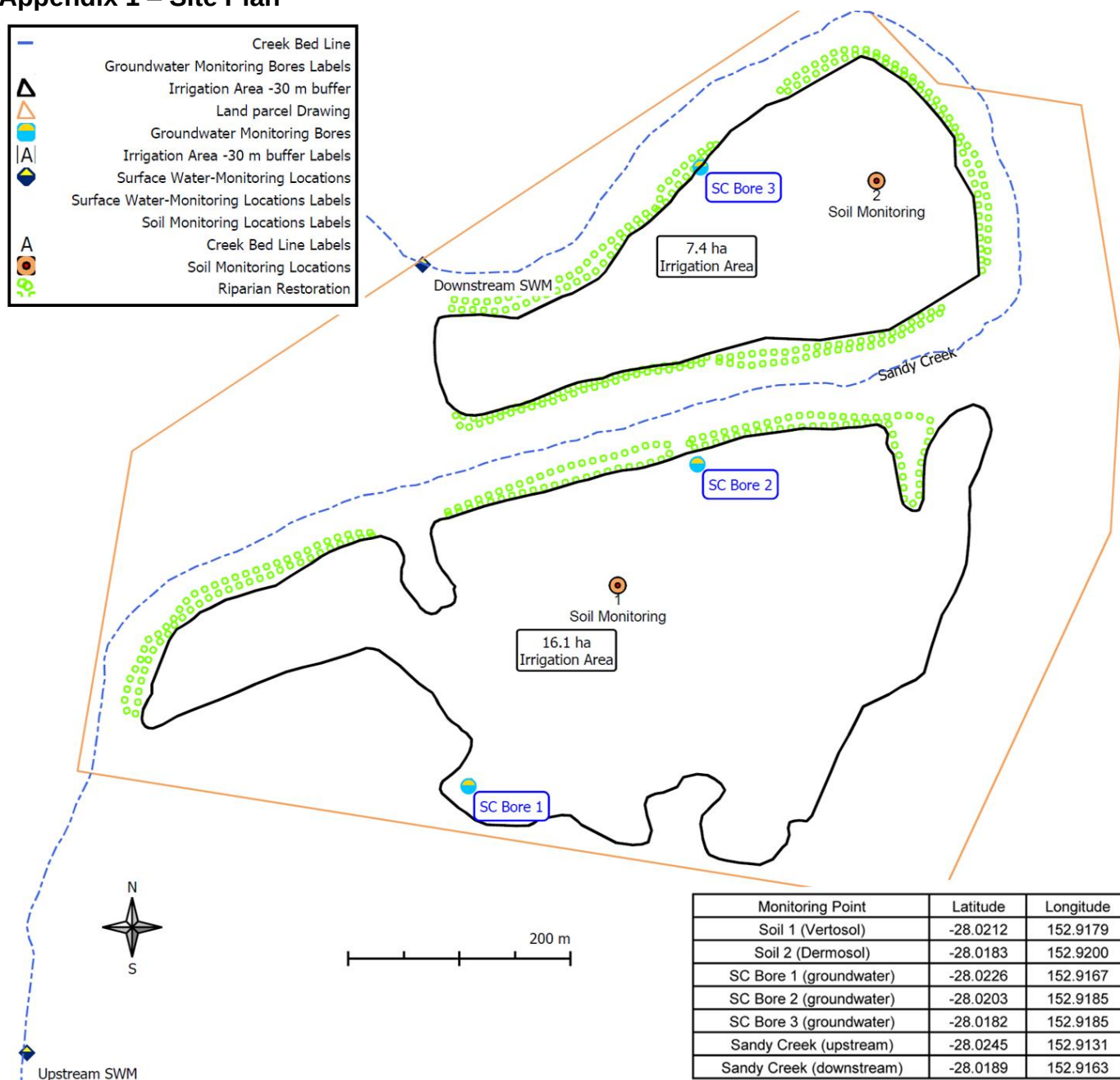
Up-gradient bore means a bore, in a location hydraulically up gradient from those aspects of the activity that may affect groundwater quality.

Viable state or viability means able to live and grow.

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.

Appendix 1 – Site Plan



Appendix 2 – Aerial photo for site context



NOTE: Appendix 2 does not relate to any conditions of this environmental authority and has only been inserted for visual context purposes.

END OF ENVIRONMENTAL AUTHORITY