

Permit

Environmental Protection Act 1994

Environmental authority EPPR04137216

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

Environmental authority number: EPPR04137216

Environmental authority takes effect on the day of approval.

The anniversary date of this environmental authority remains 01 July. The payment of the annual fee will be due each year on this day.

Environmental authority holder

Name	Registered address
Department of Environment and Science	400 George Street, BRISBANE QLD 4000

Environmentally relevant activity and location details

Environmentally relevant activity	Location
ERA 63 - Sewage Treatment 1(a-i) - Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of more than 21 but not more than 100EP if treated effluent is discharged from the works to an infiltration trench or through an irrigation scheme	Boodjamulla (Lawn Hill) National Park, Wills Road, Lawn Hill QLD 4825; Lot 17 Plan NPW627.

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:

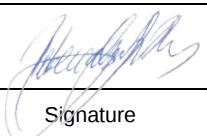
- a) if the authority is for a prescribed ERA and it states that it takes effect on the day nominated by the holder of the authority in a written notice given to the administering authority – on the nominated day; or
- b) if the authority states a day or an event for it to take effect – on the stated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

The anniversary day of this environmental authority is the same day each year as the effective date. The payment of the annual fee will be due each year on this day. An annual return will be due each year on 01 April.

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



Signature

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

13/01/2023

Date

Enquiries:
Industry, Development and Southeast Compliance
Department of Environment and Science
Phone: 1300 130 372
Email: palm@des.qld.gov.au

Obligations under the *Environmental Protection Act 1994*

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

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

Other permits required

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

Obligations under the *Mining and Quarrying Safety and Health Act 1999*

If you are operating a quarry, other than a sand and gravel quarry where there is no crushing capability, you will be required to comply with the *Mining and Quarrying Safety and Health Act 1999*. For more information on your obligations under this legislation contact Mine Safety and Health at www.resources.qld.gov.au, or phone 13 QGOV (13 74 68) or your local Mines Inspectorate Office.

Development Approval

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

Conditions of environmental authority

Environmentally relevant activity	Location
ERA 63 - Sewage Treatment 1(a-i) - Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of more than 21 but not more than 100EP if treated effluent is discharged from the works to an infiltration trench or through an irrigation scheme	Boodjamulla (Lawn Hill) National Park, Wills Road, Lawn Hill QLD 4825; Lot 17 Plan NPW627.

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

Agency interest: General	
Condition number	Condition
G1	Activities must be conducted in accordance with the following: (a) inflows into System 1 must not exceed the daily peak design capacity of 11,000L/day; and (b) inflows into System 2 must not exceed the daily peak design capacity of 6000L/day.
G2	All reasonable and practicable measures must be taken to prevent or minimise any environmental harm caused, or likely to be caused by the activities .
G3	Any contravention of a condition of this environmental authority must be reported to the administering authority as soon as practicable, but no more than 24 hours of becoming aware of the contravention.
G4	Within 14 days of providing the notification under condition G3, or a longer period agreed to in writing by the administering authority , an investigation must be completed into any contravention of a condition of the environmental authority 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 measures that could be implemented to address the cause of the contravention to prevent future contraventions of this nature.
G5	Measures identified under condition G4(c) must be implemented within: (a) 28 days of the investigation required by condition G4 being completed; or (b) a longer period agreed to in writing by the administering authority.
G6	The following details must be recorded for all contraventions of conditions within the environmental authority: (a) date and time the contravention occurred; and (b) nature and details of the contravention; and (c) investigations carried out in response to the contravention as required by condition G4; and (d) the results of investigations; and

	(e) measures taken under condition G4(c).
G7	Other than as permitted by this environmental authority, the release of a contaminant into the environment must not occur.
G8	All records required by the conditions of this environmental authority must be kept for a minimum of five years, and all monitoring results and raw data from the LMP required by condition L14 must be kept for at least 10 years of this environmental authority.
G9	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 .
G10	An appropriately qualified person(s) must monitor, record and interpret all parameters that are required to be monitored by this environmental authority.
G11	All analyses required under this environmental authority must be carried out by a laboratory that has National Association of Testing Authorities (NATA) accreditation or an equivalent certification, for such analyses. The only exception to this condition is for in situ monitoring of pH and electrical conductivity.
G12	An annual monitoring report (Annual Monitoring Report) must be prepared and submitted to the administering authority by 30 November each year, for the preceding financial year.
G13	The following details must be recorded for all environmental complaints received: (a) date and time the complaint was received; and (b) if authorised by the person making the complaint, their name and contact details; and (c) nature and details of the complaint; and (d) investigations carried out in response to the complaint as required by condition G14; and (e) the results of investigations; and (f) measures taken under condition G14.
G14	An investigation must be undertaken within 28 days (or a longer period agreed to in writing by the administering authority) into all complaints received to determine: (a) the potential circumstances and actions on site that may have contributed to the basis of the complaint; and (b) reasonable measures that could be implemented to address the complaint.
G15	Measures identified under condition G14 must be implemented within: (a) 28 days of the investigation required by condition G14 being finalised; or (b) a longer period agreed to in writing by the administering authority .
G16	When requested by the administering authority , monitoring must be undertaken in the manner and within the timeframe prescribed by the administering authority , to investigate any alleged environmental harm caused by the activity .
G17	The results, including an analysis of the results, of monitoring required by condition G16 must be provided to the administering authority : (a) within 10 days after you receive the monitoring results; or (b) A longer period agreed to in writing by the administering authority .
G18	Written procedures must be developed which:

	(a) identify all potential risks to the environment from the activity, including: (i) during routine operations; and (ii) outside routine operations; and (iii) during closure; and (iv) in an emergency; and (b) identify measures to prevent or minimise the potential for environmental harm for each of the potential risks identified; and (c) establish an inspection and maintenance program for plant and equipment including calibration and servicing that is in accordance with manufacturer's instructions; and (d) establish a staff training program on obligations under this environmental authority and the Environmental Protection Act 1994 to be conducted as part of staff inductions and at least annually thereafter; and (e) establish processes to review environmental risks, incidents, performance and complaints.
G19	Written procedures required by condition G18 must be: (a) implemented; and (b) reviewed at least every two years; and (c) provided to the administering authority upon request and within a timeframe specified by the administering authority.
G20	Plant and equipment necessary to comply with the conditions of this environmental authority must be installed, operated, calibrated and maintained: (a) in a proper and effective manner; and (b) in accordance with the written procedures developed under condition G18 for the plant and equipment.
G21	Chemicals and fuels in containers of greater than 15 litres must be stored within a secondary containment system .
Agency interest: Air	
Condition number	Condition
A1	Odours or airborne contaminants from the activity must not cause environmental nuisance to any sensitive place or commercial place .
A2	Effluent spray or overspray must not move beyond the effluent disposal area .
Agency interest: Land	
Condition number	Condition
L1	Other than as permitted within this environmental authority, contaminants from the activity must not be released to land .
L2	Contaminants generated by System 1 must only be released to land within the AES disposal area where the following requirements are complied with:

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

Table 1 – Contaminant limits for releases to land for System 1

Monitoring Point	Quality Characteristic (units)	Maximum	Minimum monitoring frequency
M2 – outlet of the System 1 pumping station, GPS coordinates: -18.70177, 138.48692	Volume (L)	11,000	Daily

L3

Contaminants generated by **System 2** must only be released to the **effluent disposal area** where the following requirements are complied with:

- (a) the release limits for each quality characteristic are complied with at the monitoring locations as specified in *Table 2 – Contaminant limits for releases to land for System 2*; and
- (b) releases are monitored at all monitoring locations and at the minimum monitoring frequency for each quality characteristic specified in *Table 2 – Contaminant limits for releases to land for System 2*; and
- (c) the associated requirements specified under *Table 2 – Contaminant limits for releases to land for System 2* are complied with and records which demonstrate that compliance are made.

Table 2 – Contaminant limits for releases to land for System 2

Monitoring Point	Quality Characteristic (units)	Minimum	Maximum	Minimum monitoring frequency
W2 - At the point of the effluent delivery line prior to discharge to land	Irrigation rate (mm/day)	-	6	Daily
	Total Nitrogen (mg/L as N)	-	30	Quarterly
	Total Phosphorus (mg/L as P)	-	10	Quarterly
	pH (pH units)	6.0	8.5	Quarterly
	<i>E.coli</i> (CFU/100mL)	-	10	Quarterly
	Electrical Conductivity (µS/cm)	-	1600	Quarterly

Associated requirements

- Monitoring must be in accordance with the most recent edition of the **administering authority's** Monitoring and Sampling Manual; and
- All monitoring devices must be effectively calibrated and maintained in accordance with manufacturers specifications; and

	3. Monitoring 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); and 4. The irrigation rate monitoring must be calculated based on the total area irrigated on that day, and the actual volume of effluent irrigated on that same day.									
L4	Releases to land from System 1 authorised under condition L2 must comply with the following: (a) the AES disposal area must be installed over a minimum surface area of 550m²; and (b) releases to land must only occur in the AES disposal area.									
L5	Releases to land from System 2 authorised under condition L3 must comply with the following: (a) the effluent disposal area must have a minimum surface area of 0.3 hectares; and (b) releases to land must only occur in the effluent disposal area.									
L6	All organic material removed from vegetation growing in the AES disposal area and the effluent disposal area must be transported and disposed of in an area other than in these areas.									
L7	When soil in the effluent disposal area is saturated , effluent must not be released to land.									
L8	Ponding of contaminants within the AES disposal area and the effluent disposal area must not occur.									
L9	Contaminants must not run off to areas beyond the AES disposal area and the effluent disposal area .									
L10	Soil structure must not be degraded as a result of the activity .									
L11	Soil sodicity and the build-up of nutrients and heavy metals in the soil and subsoil must be minimised.									
L12	Public access to the AES disposal area and the effluent disposal area must be prevented.									
L13	The effluent disposal area and the AES disposal area must be maintained with an appropriate crop in a viable state.									
L14	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 certified as being appropriate to meet the requirements in subparagraph (a).									
L15	The LMP required by condition L14 must include: (a) taking soil samples at a soil depth range of 0-30cm and 30-60cm from monitoring locations specified in <i>Table 3 – Land Monitoring Program</i>; and (b) monitoring of the receiving environment at the monitoring location, and at the minimum monitoring frequency, and for the quality characteristics specified in <i>Table 3 – Land Monitoring Program</i>. <table><tr><th colspan="3">Table 3 – Land Monitoring Program</th></tr><tr><th>Monitoring locations</th><th>Quality characteristic (units)</th><th>Minimum monitoring frequency</th></tr><tr><td></td><td>Soil texture class</td><td>Annually</td></tr></table>	Table 3 – Land Monitoring Program			Monitoring locations	Quality characteristic (units)	Minimum monitoring frequency		Soil texture class	Annually
Table 3 – Land Monitoring Program										
Monitoring locations	Quality characteristic (units)	Minimum monitoring frequency								
	Soil texture class	Annually								

	<table><tr><td rowspan="10">At least one reference site, and representative locations within 1m of and adjacent to the AES disposal area, and the within effluent disposal area.</td><td>Emerson aggregate stability test</td><td rowspan="10">Annually</td></tr><tr><td>pH (pH units)</td></tr><tr><td>Nitrogen adsorption capacity (mg/kg)</td></tr><tr><td>Phosphorus adsorption capacity (mg/kg)</td></tr><tr><td>Total Kieldahl nitrogen (mg/kg)</td></tr><tr><td>Colwell phosphorus (mg/kg)</td></tr><tr><td>Electrical Conductivity (EC) (µS/cm)</td></tr><tr><td>Exchangeable sodium percentage (%)</td></tr><tr><td>Salinity leaching fraction</td></tr><tr><td>Cation exchange capacity (meg/100g)</td></tr><tr><td></td><td>Phosphorus Buffering Index (PBI)</td><td>Every 5 years</td></tr></table>	At least one reference site, and representative locations within 1m of and adjacent to the AES disposal area , and the within effluent disposal area .	Emerson aggregate stability test	Annually	pH (pH units)	Nitrogen adsorption capacity (mg/kg)	Phosphorus adsorption capacity (mg/kg)	Total Kieldahl nitrogen (mg/kg)	Colwell phosphorus (mg/kg)	Electrical Conductivity (EC) (µS/cm)	Exchangeable sodium percentage (%)	Salinity leaching fraction	Cation exchange capacity (meg/100g)		Phosphorus Buffering Index (PBI)	Every 5 years
At least one reference site, and representative locations within 1m of and adjacent to the AES disposal area , and the within effluent disposal area .	Emerson aggregate stability test		Annually													
	pH (pH units)															
	Nitrogen adsorption capacity (mg/kg)															
	Phosphorus adsorption capacity (mg/kg)															
	Total Kieldahl nitrogen (mg/kg)															
	Colwell phosphorus (mg/kg)															
	Electrical Conductivity (EC) (µS/cm)															
	Exchangeable sodium percentage (%)															
	Salinity leaching fraction															
	Cation exchange capacity (meg/100g)															
	Phosphorus Buffering Index (PBI)	Every 5 years														
L16	The LMP required by condition L14 must include observations recorded at the time soil samples are taken, that record the extent to which there if evidence of: (a) effluent disposal induced surface runoff occurring to areas outside the AES disposal area and the effluent disposal area; and (b) surface ponding of effluent occurring.															
L17	The LMP required by condition L14 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.															
L18	The LMP required by condition L14 must be submitted to the administering authority upon request, and within a timeframe (which must be at least 1 business day) specified by, the administering authority.															
L19	Any comments made by the administering authority on the LMP must be addressed to the reasonable satisfaction of, and within a timeframe (which must be at least 5 business days) specified by, the administering authority															
L20	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 condition G12.															
L21	The LMP Report required by condition L20 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.															

L22	The LMP Report required by condition L20 must include analysis and interpretation of monitoring results by an appropriately qualified person that determines: (a) the ongoing capacity of the AES disposal area and the effluent disposal area to sustainably receive contaminant releases from the activity, including but not limited to the capacity of the AES disposal area and the effluent disposal area to sustainably adsorb nutrient loads from the activity; and (b) whether the AES disposal area and the effluent disposal area is sufficient in size for the volume of effluent disposed of to land; and (c) whether contaminants generated by the activity have migrated beyond the AES disposal area and the effluent disposal area; and (d) how the soil in the AES disposal area and the effluent disposal area has been impacted by the activity.
L23	The LMP Report required by condition L20 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.
L24	Any action(s) recommended under condition L23 in the LMP Report must be undertaken: (a) as soon as practicable, but no later than 14 days after receiving the LMP Report; or (b) another period agreed to in writing by the administering authority.
Agency interest: Acoustic	
Condition number	Condition
N1	Noise generated by the activity must not cause environmental nuisance to any sensitive place or commercial place .
Agency interest: Waste	
Condition number	Condition
W1	All waste generated by the activity must be lawfully reused or recycled, and/or lawfully removed to a facility that can lawfully accept the waste.
Agency interest: Water	
Condition number	Condition
WT1	Contaminants must not be released to any waters .
WT2	Plant and equipment must be designed to allow for continued operation during flood events and inundation of the site .
WT3	Contaminant pumping stations must be fitted with stand-by pumps and pump-failure alarms as well as high level alarms to warn of imminent pump station overflow. All alarms must be able to operate in the event of power failure.
WT4	All duty and stand-by pumps must be inspected, tested and maintained on a regular basis to ensure they remain in a constant state of service.
WT5	Effluent may be removed from the site and provided to a person with the written consent of that person .

WT6	Records of treated effluent removed from the site and supplied to a person must be made and include the following: (a) the person the effluent was supplied to; and (b) the <i>Escherichia coli</i> (E.coli) (CFU/100mL) concentration of the effluent supplied; and (c) the volume of effluent supplied; and (d) the date the effluent was supplied.
WT7	Immediately upon the request of the administering authority, you must cease providing effluent to a person.

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 *Environmental Protection Act 1994*, its regulations or environmental protection policies must be used. If a word remains undefined it has its ordinary meaning.

Activity means the environmentally relevant activity(s) to which 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*.

AES disposal area means the area identified as 'NEW AES BED' in *Appendix 1 – Site layout*, approximate location.

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.

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.

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

Effluent disposal area means the area identified as 'IRRIGATION AREA FOR OZZI KLEENS' in *Appendix 1 – Site layout*, approximate location.

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

Field capacity means the amount of water retained in soil when the soil has been allowed to drain for 24hrs under normal gravity conditions.

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

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

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

Raw data means primary data collected from a source that has not been processed and includes monitoring sheets, monitoring device readings, laboratory analysis results and certificate of analysis.

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.

Saturated means the soil moisture level is greater than the soil field capacity.

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

System 1 means a sewage treatment plant consisting of a combined septic system and AES trench release system, with a peak design capacity of 11,000L/day, which treats raw sewage generated from the visitor information, administrative and interpretive centre and existing campground amenities block.

System 2 means a combination of three (3) package sewage treatment plants and equipment, each having a peak daily design capacity of ten (10) equivalent persons with a total cumulative peak design capacity of thirty (30) equivalent persons, which treats raw sewage generated from the ranger office and ranger workbase.

The site means the area of land identified as being approved for the carrying out of the activity as per *Appendix 1 – Site layout* of this environmental authority.

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**.

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 layout

