Permit

Environmental Protection Act 1994

Environmental authority EPPR00590613

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

Environmental authority number: EPPR00590613

Environmental authority takes effect on 12 July 2019

Environmental authority holder(s)

Name(s)	Registered address
Eaglebrook CTS 32588	3-13 Cook Road EAGLE HEIGHTS QLD 4271

Environmentally relevant activity and location details

Environmentally relevant activity/activities	Location(s)
Prescribed ERA, 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 0/SP159256

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

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- 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.

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

Date issued: 11 July 2019

Enquiries:
Extraction, Energy and Chemical Industries Assessment
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.

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.

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Conditions of environmental authority

Environmentally relevant activity	Location
ERA 63 - Sewage Treatment 1: Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of (a-i) 21 to 100EP if treated effluent is discharged from the works to an infiltration trench or through an irrigation scheme	LOT 0/SP159256

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

Agency interest: General	
Condition number	**Condition**
G1	**Activities** conducted under this environmental authority must not be conducted contrary to any of the following limitations: 1. Inflows sewerage treatment plant must not exceed the peak design capacity of 20kL/day**.**
G2	All reasonable and practicable **measures** must be taken to prevent or minimise environmental harm caused by the **activities.**
G3	The **activity** must be undertaken in accordance with written procedures that: 1. identify potential risks to the environment from the activity during routine operations, closure and an emergency; 2. establish and maintain control measures that minimise the potential for environmental harm; 3. ensure plant, equipment and measures are maintained in a proper and effective condition; 4. ensure plant, equipment and measures are operated in a proper and effective manner; 5. ensure that staff are trained in and aware of their obligations under the *Environmental Protection Act 1994*; and 6. ensure that reviews of environmental performance are undertaken at least annually.
G4	All information and **records** required by the conditions of this environmental authority must be kept for a minimum of five years with the exception of environmental monitoring results which must be kept until surrender of this environmental authority. All information and **records** required by the conditions of this environmental authority must be provided to the **administering authority** upon request and in the format requested.

G5	An annual monitoring report must be prepared and submitted to the **administering authority** by 30 November each year, for the preceding financial year.
G6	Any breach of a condition of this environmental authority must be reported to the **administering authority** as soon as practicable within 24 hours of becoming aware of the breach. **Records** must be kept including full details of the breach and any subsequent actions taken.
G7	**You** must record the following details for all environmental complaints received: 1. date and time complaint was received; 2. name and contact details of the complainant when provided and authorised by the complainant; 3. nature of the complaint; 4. investigations undertaken; 5. conclusions formed; and 6. actions taken.
G8	When required by the **administering authority**, monitoring must be undertaken in the manner prescribed by the **administering authority** to investigate a complaint of environmental nuisance arising from the activity. The monitoring results must be provided within 10 business days to the **administering authority** upon its request.
Agency interest: Air	
Condition number	**Condition**
A1	Odours or airborne contaminants must not cause **environmental nuisance** at a **sensitive place** or **commercial place**.
Agency interest: Water	
Condition number	**Condition**
W1	Other than as permitted within this environmental authority, contaminants must not be released to any **waters**.
W2	A **receiving environment monitoring** program must be designed and implemented by an **appropriately qualified person** to monitor the effects of the **activity** on **groundwater**.

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W3	The receiving **environmental monitoring program** for **groundwater** required by condition W2 must: 1. be sufficient to determine the impacts of the **activity** on the **groundwater** quality in the underlying aquifer; 2. include, but not be limited to, a sufficient number of bores (minimum of six) installed at locations and depths which yield representative **groundwater** samples from at least the upper-most aquifer so as to: i. establish the quality of **groundwater** which has not been affected by seepage or drainage of contaminants to **groundwater** from the **activity**; ii. detect any seepage of contaminants to **groundwater** from the **activity**; 3. ensure that new well locations be surveyed for location and elevation to mAHD by a licensed surveyor to an accuracy of ± 0.05 m in the X-Y plane and to an accuracy of ± 0.002 m in the Z axis; 4. the inferred **groundwater** flow direction be determined utilising gauging data to be collected at each **groundwater** monitoring event; 5. determine the connectivity of **groundwater** between monitoring bores for example, by sampling and comparing physical parameters (anion and cation analysis); 6. include sufficient background **groundwater** monitoring to establish influences such as seasonal variation on baseline **groundwater** quality; 7. include monitoring of downstream **groundwater** quality, hydraulically down gradient of all irrigation areas; and 8. consider the potential use of **groundwater** in the vicinity.

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W4	The receiving **environmental monitoring program** for **groundwater** required by condition W2 must: 1. Include requirements for monitoring to: a. be undertaken at least every six months monitoring of the quality of groundwater to detect any possible release(s) of contaminants; and b. be undertaken for a suite of contaminants of concern that are contaminants associated with the treated effluent that is irrigated on **site** including, but not limited to, monitoring of at least the following parameters: i. pH; ii. total nitrogen as mg/L Nitrogen (sum of organic N, ammonia N, nitrite N and nitrate N); iii. ammonia nitrogen as mg/L Nitrogen; iv. total phosphorus as mg/L Phosphorus; v. electrical conductivity (Ec) µS/cm; and vi. Escherichia coli as colony forming units /100 mL (cfu/100 mL). 2. Identify trigger levels for contaminants of concern that are suitable for early detection of seepage of the above contaminants of concern to groundwater. The trigger levels must be derived using appropriate legislation and guidance including the latest version of the administering authority's guideline '*Using Monitoring Data to Assess Groundwater Quality and Potential Environmental Impacts'*; 3. Include procedures which include: a. requirements to measure and record standing levels in bores, accurate to 0.01m, on each occasion that samples are obtained for **groundwater** monitoring; b. provision for security of the sampling **sites**; c. require that monitoring of **groundwater** is undertaken in accordance with the current edition of the **administering authority's** guideline *Monitoring and Sampling Manual;* d. taking and recording of quality assurance measurements and samples; e. groundwater trigger action response procedures, and require that these be implemented when monitoring conducted under this monitoring program indicates that trigger levels identified in section 2 of this condition have been exceeded, or upon becoming aware of any monitoring results that indicate potential groundwater contamination from the activity; and f. justification for the monitoring program's design, including assumptions, determinations, monitoring equipment, sampling methods, data analysis and reporting regime.

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W5	A Groundwater Monitoring Report must be prepared by an **appropriately qualified person** annually, and provided to the **administering authority** with the annual return. This report must: 1. include interpretation of the results obtained from the receiving environmental monitoring program for groundwater required by condition W2; 2. consider environmental values including potential use of groundwater in the vicinity; 3. determine whether treated effluent has impacted **groundwater** based on the results obtained compared to the adopted trigger limits and any historical monitoring results, and if relevant, the extent to which any environmental values have been impacted; 4. determine whether further investigation is required to determine the extent of impacts on environmental values and whether any changes to the **groundwater** monitoring program are required for future investigations; and 5. provide recommendations including the implementation of any changes to how the **activity** is carried out in order to prevent impacts on environmental values.
Agency interest: Noise	
Condition number	**Condition**
N1	Other than as permitted within this environmental authority, noise generated by the activity must not cause **environmental nuisance** to any **sensitive place** or **commercial place**.

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N2	All noise from activities must not exceed the levels specified in - ***Table 1*** at any **noise sensitive place**.

Table 1 Noise limits – (Sensitive place and Commercial place)

Noise level dB(A) measured as	Noise measured at a 'Noise sensitive place'					
	Monday to Saturday			Sundays and public holidays		
	7am-6pm	6pm-10pm	10pm-7am	9am-6pm	6pm-10pm	10pm-9am
L_A10, adj, 10 mins	55	50	40	55	50	40
L_A1, adj, 10 mins	60	55	45	60	55	45

Noise level dB(A) measured as	Noise measured at a 'Commercial place'					
	Monday to Friday			Sundays and public holidays		
	7am -6pm	6pm-10pm	10pm-7am	9am -6pm	6pm - 10pm	10pm - 9am
L_A10, adj, 10 mins	65	60	45	60	55	45
L_A1, adj, 10 mins	65	60	50	65	60	50

N3	Condition N2 applies if: there are complaints to the **administering authority** about the level of noise from any source in carrying out the environmentally relevant activities at authorised place; and the complaints are not frivolous or vexatious or based on mistaken belief.
N4	When requested by the **administering authority**, noise monitoring must be undertaken to investigate any complaint of noise nuisance, and the results notified within 14 days to the **administering authority**. Monitoring must include: 1. L_A10, adj, 10 mins; 2. L_A1, adj, 10 mins; 3. L_A, max adj, T; 4. the level and frequency of occurrence of impulsive or tonal noise; 5. atmospheric conditions including wind speed and direction; 6. effects due to extraneous factors such as traffic noise; and

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	7. location, date and time of recording.
Agency interest: Land	
Condition number	**Condition**
L1	The only contaminants permitted to be released to **land** are treated effluents to the **land** areas shown in Appendix 1 in Schedule l in compliance with the limit levels stated in ***Table 1 (Release limits – 'Land')*** below associated requirements.

Table 2 (Release limits - 'Land')

Release limits						
Quality Characteristic	**Units**	**Min**	**Median**	**95th Percentile**	**Max**	**Monitoring Frequency**
Irrigation rate	mm/day	-	-	-	2.14	Daily
Turbidity	NTU	-	-	-	-	Monthly
Total Chlorine	Mg/L	1	-	-	5	Monthly
E.coli	Colony forming units/100 ml	-	<100	-	<150	Monthly
Dissolved oxygen	Mg/l	2.0	-	-	-	Monthly
pH	Scale	6.0	-	-	8.5	Monthly
Electrical Conductivity	Micro Siemens per cm	-	-	-	<1,600	Monthly
5-day Biochemical oxygen demand (inhibited)	Mg/L	-	20	-	30	Quarterly
Total suspended solids	Mg/L	-	30	-	45	Quarterly
Total nitrogen	Mg/L as Nitrogen	-		-	60	Quarterly

<table>
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<tr><td>Total Phosphorus</td><td>Mg/L as Phosphorus</td><td>-</td><td></td><td>-</td><td>12</td><td>Quarterly</td></tr>
</table>

Associated requirements:
1. the allocated land area for treated sewage irrigation is not to be less than 4200m2 in accordance with Appendix 1.
2. monitoring must be in accordance with the administering authority's latest Water Quality Sampling Manual and all monitoring devices must be effectively calibrated and maintained.
3. releases of treated effluent must not occur outside of the designated irrigation area indicated on Appendix 1.
4. monitoring must be undertaken when treated sewage is being irrigated, unless irrigation has ceased for longer than the relevant parameters specified minimum frequency (e.g. if TSS was only required to be monitored once a week, then a TSS sample would not be required after the first week following cessation of the release.
5. indicators for TN and TP are recommended to be done as grab samples.
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<tr><td>L2</td><td>A Receiving environment monitoring program must be designed and implemented by an appropriately qualified person to monitor the effects of the activity on land.</td></tr>
<tr><td>L3</td><td>The Receiving Environment Monitoring Program (REMP) for release of contaminants to land required by condition L2, must include at least the following:

1. soil and sub-soil analysis, including assessment of the soils from representative locations, including type, structure, pH, phosphorus adsorption level and capacity, nutrient status, salinity and sodicity, and cation exchange capacity of the irrigation release areas; and
2. determination of the quantity and quality of contaminants applied to the soils from the recycled water irrigation; and
3. periodic re-assessment including modelling of the water, nutrient and salt balances and irrigation rate and return period to ensure sustainable use of the irrigation area; and
4. reporting of monitoring results and an assessment of the impact of the releases on the irrigation areas; and
5. interpretation of the monitoring results by an appropriately qualified person as to whether environmental harm is being caused as a result of the activity; and
6. a Soil Monitoring Report must be prepared by an appropriately qualified person annually, and provided to the administering authority with the annual return. This report must include a summary of all monitoring and determinations required by the condition L3.</td></tr>
<tr><td>L4</td><td>The irrigation of effluent must be carried out in a manner such that:
1. vegetation is not damaged;
2. soil erosion and soil structure damage is avoided;
3. there is no surface ponding of effluent;
4. percolation of effluent beyond the plant root zone is minimised;
5. the capacity of the land to assimilate nitrogen, phosphorus, salts, organic matter as measured by oxygen demand and water is not exceeded; and
6. the quality of ground water is not adversely affected.</td></tr>
<tr><td>L5</td><td>Soils moisture meters must be placed in all the land areas shown in Appendix 1.</td></tr>
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L6	Notices must be prominently displayed on all land areas shown in Appendix 1 warning the public that the area is irrigated with effluent and not to use or drink the effluent. These notices must be maintained in visible and legible condition.
L7	The daily volume of contaminants released to land from each sewage treatment plant must be determined utilising an appropriate method, for example a flow meter, and records kept of such determinations.
L8	**You** must have treated effluent wet weather storage with a minimum volume of 100 kL.
L9	Irrigation of effluent to land must not cause surface pondage or run-off of effluent.
L10	The wet weather storage effluent must maintain a minimum of 1 mg/L of residual chlorine at all times.
L11	**You** must develop and implement an Effluent Irrigation Management Plan which details how the irrigation is to be managed and scheduled having reference to at least the following: 1. soil moisture results; 2. weather forecasts and climate monitoring results; 3. Irrigation **records** for each effluent disposal area; 4. crop history for each disposal are; 5. sustainable hydraulic loadings for the contaminated release area; 6. sustainable biological oxygen demand loadings for the contaminant release area; 7. sustainable nitrogen loadings for the contaminant release area; 8. sustainable phosphorous loadings for the contaminant release area; 9. sustainable salt loadings for the contaminant release area; and 10. production of appropriate **records** and reporting of results and environmental issues.
Agency interest: Waste	
Condition number	**Condition**
WA1	All waste generated in carrying out the activity must be lawfully reused, recycled or removed to a facility that can lawfully accept the waste.

Definitions

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

Administering authority means the Department of Environment and Science or its successor.

Appropriately qualified person(s) 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 or literature.

cfu - means colony forming unit.

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.

Dust sensitive place means -

1. a dwelling, mobile home or caravan park, residential marina or other residential place; a motel, hotel or hostel;
2. a kindergarten, school, university or other educational institution; a medical centre or hospital,
3. a protected area;
4. a park or gardens; or
5. a place used as an office or for business or commercial purposes and includes the curtilage of any such place
6. **Environmental nuisance** as defined in Chapter 1 of the *Environmental Protection Act 1994*.

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

Land in the "land schedule" of this document means land excluding waters and the atmosphere.

mg/L means milligrams per litre.

NATA means National Association of Testing Authorities.

NTU means nephelometric turbidity units.

Odour sensitive place has the same meaning as a "dust sensitive place"

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

Sensitive place includes the following and includes a place within the curtilage of such a place reasonably used

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by persons at that place:

1. a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or
2. a motel, hotel or hostel; or
3. a kindergarten, school, university or other educational institution; or
4. a medical centre or hospital; or
5. a protected area under the *Nature Conservation Act 1992*, the *Marine Parks Act 2004* or a World Heritage Area; or
6. a public park or garden; or
7. for noise, a place defined as a sensitive receptor for the purposes of the Environmental Protection (Noise) Policy 2008.

You means the holder of the environmental authority.

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

Receiving environment monitoring program means a monitoring program designed to monitor and assess the potential impacts of controlled and/or uncontrolled releases of contaminants to the environment from the activity

Sensitive place means –

1. a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or
2. a motel, hotel or hostel; or
3. a kindergarten, school, university or other educational institution; or
4. a medical centre or hospital; or
5. a protected area under the Nature Conservation Act 1992, the Marine Parks Act 1992 or a World Heritage Area; or
6. a public thoroughfare, park or gardens; or
7. for noise, a place defined as a sensitive receptor for the purposes of the Environmental Protection (Noise) Policy 2008

Site means the place to which this environmental authority relates or the premises to which this environmental authority relates.

L_A10, 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_A1, 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

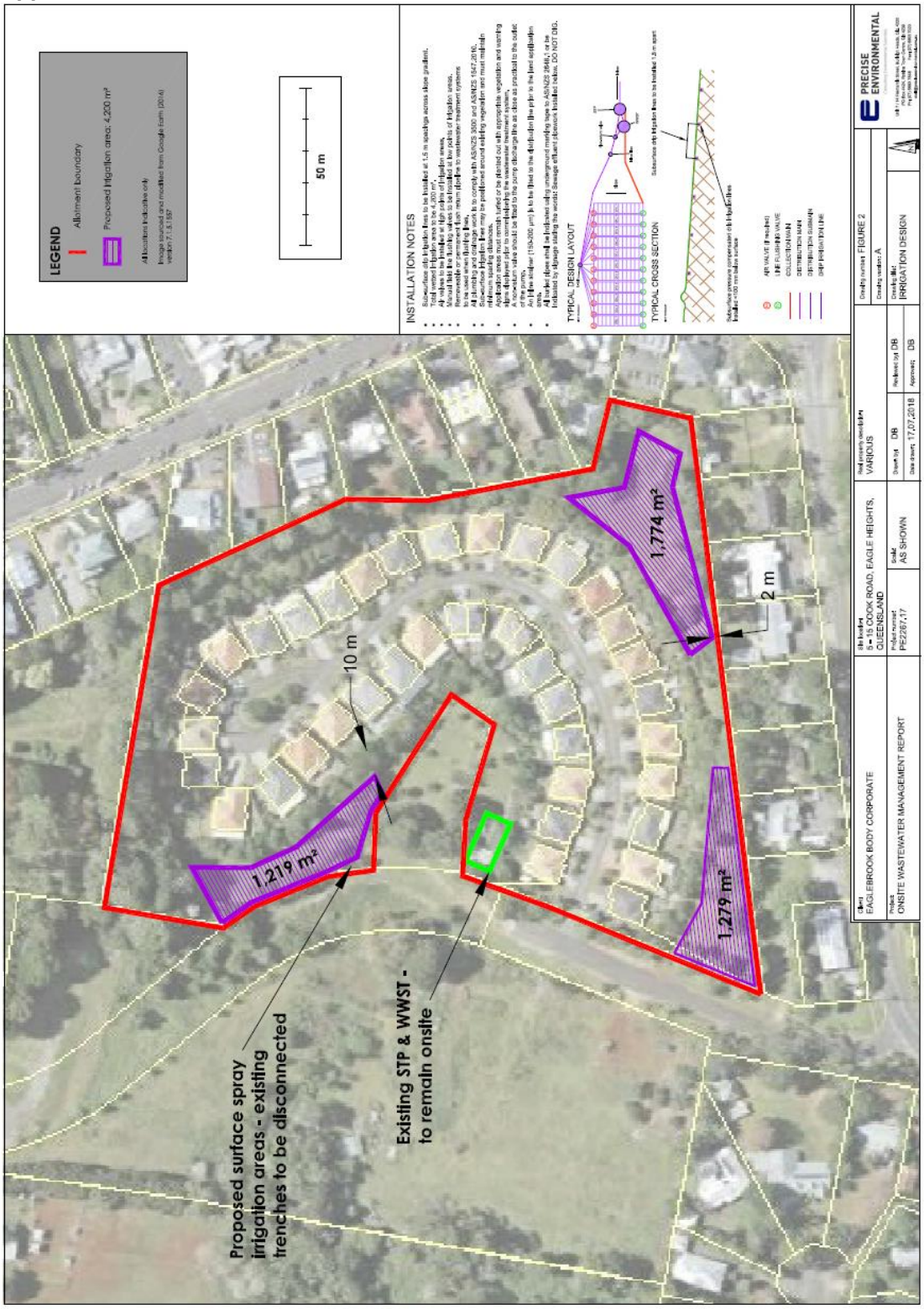
L_A, max adj, T means the average maximum A-weighted sound pressure level, adjusted for noise character and measured over any 10 minute period, using Fast response.

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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.

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Appendix 1



END OF PERMIT

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