

Permit

Environmental Protection Act 1994

Environmental authority EA0000983

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

Environmental authority number: EA0000983

Environmental authority takes effect on 29 September 2017

Environmental authority holder(s)

Name(s)	Registered address
QRI Services Pty Ltd	Suite 1 Level 2 131 Leichhardt St SPRING HILL QLD 4000 Australia

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, (b-i) more than 100 but not more than 1000; treated effluent is discharged from the works into an infiltration trench or through an irrigation scheme	Lot 14/SP236280; Industry and Development, Coal, Energy and Extraction, Minerals

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.

Environmental authority

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.

Daniel Spelchan
Department of Environment and Heritage Protection
Delegate of the administering authority
Environmental Protection Act 1994

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Assessment
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Date issued: 29 September 2017

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)

Legislative Requirements and Conditions of Environmental Authority

Legislative Requirements

PLR022 This permit only provides an approval under the *Environmental Protection Act 1994*. In order to lawfully operate you may also require permits / approvals from your local government authority, other business units within the department and other State Government agencies prior to commencing any activity at the site. For example, this may include permits / approvals with your local Council (for planning approval), the Department of Transport and Main Roads (to access state controlled roads), the Department of Natural Resources and Mines (to clear vegetation), and the Department of Agriculture and Fisheries (to clear marine plants or to obtain a quarry material allocation).

Conditions

General

- G1 Activities under this environmental authority must be conducted in accordance with the following limitations:
1. A maximum of 37.5 kL per day of treated effluent may be disposed of over a minimum irrigation area of 1.2 hectares.
 2. Irrigation of treated effluent must only occur within the irrigation areas defined in EDOCS-#5851368-v1-QRI_Services_-_Figure_1_Location_of_Irrigation_Areas.
- PMG008 All reasonable and practicable measures must be taken to prevent or minimise environmental harm caused by the activities.
- PMG007 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.
- PMG014 Other than as permitted by this environmental authority, the release of a contaminant into the environment must not occur.

- PMG018 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.
- PMG015 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.
- G7 All analyses required under this environmental authority must be carried out by a laboratory that has National Association of Testing Authorities (NATA) certification, or an equivalent certification, for such analyses.
- PMG020 You must record the following details of all environmental complaints received:
1. date and time the complaint was received
 2. name and contact details of the complainant when provided and authorised by the complainant
 3. nature of the complaint
 4. investigation undertaken
 5. conclusions formed
 6. actions taken.
- PMG009 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.
- PMG017 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
 6. ensure that reviews of environmental performance are undertaken at least annually.
- PCG037 All waste generated in carrying out the activity must be lawfully reused, recycled or removed to a facility that can lawfully accept the waste.

Air

PMA001 Other than as permitted within this environmental authority, odours or airborne contaminants must not cause environmental nuisance at a sensitive place or commercial place.

Water

PSW001 Stormwater contaminated by the activity must be managed to minimise or prevent any
(S) adverse effect on the environmental values of the receiving environment.

Land

- L1 The only contaminants to be released to land are treated effluent in accordance with Table 1 – Treated effluent release limits to irrigated area and the associated requirements.

Table 1 - Treated effluent release limits to irrigation area

Quality Characteristic (units)	Minimum	Maximum	Minimum monitoring frequency	Monitoring point
Volume (L/ha/day)	-	31250	Daily	On the discharge side of the irrigation pumps
<u>BOD5</u> (mg/L)	-	20	Every 12 weeks	
Total Suspended Solids (mg/L)	-	30	Every 12 weeks	
<u>Total Nitrogen</u> (mg/L as N)	-	20	Every 12 weeks	
<u>Total Phosphorus</u> (mg/L as P)	-	5	Every 12 weeks	
pH (pH units)	6.0	8.5	Every 12 weeks	
E. coli (CFU/100ml)	-	100	Every 12 weeks	
Electrical Conductivity (µS/cm)	-	1600	Every 12 weeks	

Associated requirements

- Monitoring must be in accordance with the administering authority's Water Quality Sampling Manual and all monitoring devices must be effectively calibrated and maintained.
- Monitoring must be undertaken when treated sewage effluent is being irrigated, unless irrigation has ceased for longer than the relevant parameters specified minimum frequency (e.g. if TSS was only required to be monitored once a week, then a TSS sample would not be required after the first week following cessation of the release).
- Volume of release must be calculated based on the total irrigation area when irrigating the maximum volume or the worked out for the area of application based on the actual volume irrigated.
- Indicators for TN and TP are recommended to be done as grab samples.

- L2 Treated effluent released to land must be done in accordance with documentation that ensures:
1. drainage to groundwater and subsurface flows of contaminants to surface waters are prevented
 2. surface pondage and run-off of effluent is prevented
 3. degradation of soil structure is minimised
 4. soil sodicity and the build-up of nutrients and heavy metals in the soil and subsoil are minimised
 5. spray drift or overspray does not carry beyond effluent disposal areas
 6. effluent disposal areas are maintained with an appropriate crop in a viable state for transpiration and nutrient uptake
 7. sufficient buffer zones are maintained between irrigation sites and sensitive environmental receptors.
- PML015 When weather conditions or soil conditions preclude the release of treated sewage effluent to land, effluent must not be irrigated to land.
- PMG012 A receiving environment monitoring program must be designed and implemented by an appropriately qualified person(s) to monitor the effects of the activity on land.
- L5 The receiving environment monitoring program required by PMG012, must include at least the following:
1. a soil survey which is completed annually.
 2. soil and sub-soil analysis, including assessment of soils from representative locations, including type, structure, pH, phosphorous adsorption level and capacity, nutrient status, salinity and sodicity and cation exchange capacity of the sub-surface irrigation areas.
 3. determination of the quantity and quality of contaminants applied to the soils from the sub-surface irrigation.
 4. periodic re-assessment including modelling of the water, nutrient and salt balances and sub-surface irrigation rate and return period to ensure sustainable use of the sub-surface irrigation area.
 5. reporting of monitoring results and an assessment of the impact of the releases on the sub-surface irrigation areas in the form of a land monitoring report.
- L6 If the land monitoring program report indicates adverse impacts from the activity, you must notify the administering authority within 10 business days and provide a copy of the report. The report must include details of how the irrigation area will be remediated.

Definitions

- PD077 Activity means the environmentally relevant activities, whether resource activities or prescribed activities, to which the environmental authority relates.
- PD078 Administering authority means the Department of Environment and Heritage Protection or its successors or predecessors.
- PD085 Appropriately qualified person(s) means a person or persons who has professional qualifications, training, skills and experience relevant to the EA requirement and can give authoritative assessment, advice and analysis in relation to the EA requirement using the relevant protocols, standards, methods or literature.
- PD092 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.
- PD099 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.
- PD1010 Contaminant(s) means as defined in Section 11 of the *Environmental Protection Act 1994*.
- PD107 Day means any 24 hour period.
- PD011 Environmental harm means as defined in Section 14 of the *Environmental Protection Act 1994*.
- PD123 Environmental nuisance as defined in Chapter 1 of the *Environmental Protection Act 1994*.
- PD124 Environmental value as defined under Chapter 1 of the *Environmental Protection Act 1994*.
- PD016 Land means land excluding waters and the atmosphere. Land includes land on the authorised place.
- PD144 Measures have the broadest interpretation and include plant, equipment, physical objects, monitoring, procedures, actions, directions and competency.
- PD018 Minimise means minimise by taking all reasonable and practical measures to minimise the adverse effect having regard to the following matters:
- (a) the nature of the harm or potential harm
 - (b) the sensitivity of the receiving environment
 - (c) the current state of technical knowledge for the activity
 - (d) the likelihood of successful application of different measures that might be taken to minimise the adverse effects
 - (e) the financial implications of the different measures as they would relate to the type of activity
 - (f) if the adverse effect is caused by the location of the activity being carrying out, whether it is feasible to carry out the activity at another location.

- PD147 NATA means National Association of Testing Authorities.
- PD167 Release of a contaminant into the environment means to:
- (a) deposit, discharge, emit or disturb the contaminant
 - (b) cause or allow the contaminant to be deposited, discharged, emitted or disturbed
 - (c) fail to prevent the contaminant from being deposited, discharged emitted or disturbed
 - (d) allow the contaminant to escape
 - (e) fail to prevent the contaminant from escaping.
- PD176 Sensitive place includes the following and includes a place within the curtilage of such a place reasonably used 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.
- PD191 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.
- PD192 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.
- PD199 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.
- PD202 You means the holder of the environmental authority.