Permit

Environmental Protection Act 1994

Environmental authority EA0001718

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

Environmental authority number: EA0001718

Environmental authority takes effect on 01 April 2019

Environmental authority holder(s)

Name(s)	Registered address
NORTH STRADBROKE ISLAND ABORIGINAL AND ISLANDERS HOUSING CO-OPERATIVE SOCIETY LTD	18 Welsby St DUNWICH QLD 4183 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, (a-i) 21 to 100EP if treated effluent is discharged from the works to an infiltration trench or through an irrigation scheme	LOT 75/SL8056

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

ABN 46 640 294 485

- 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.

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

Date issued: 22 March 2019

Enquiries:
Heritage, Utilities and Government 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)

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 must not exceed the peak design capacity of the **Design Average Dry Weather Flow** (DADWF) of 12,000L/**day** however daily irrigation volume as permitted under condition L1 must not exceed 8,500L/**day** with all surplus effluent to be removed by a licensed liquid waste contractor or as authorised under condition L6.
G2	All reasonable and practicable **measures** must be taken to prevent or minimise environmental harm caused by the **activities**.
G3	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.
G4	Other than as permitted by this environmental authority, the **release of a contaminant into the environment** must not occur.
G5	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.
G6	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	An annual monitoring report must be prepared and submitted to the **administering authority** by 30 November each year, for the preceding financial year.
G8	**You** must record the following details for all environmental complaints received: • date and time complaint was received; • name and contact details of the complainant when provided and authorised by the complainant; • nature of the complaint; • investigations undertaken; • conclusions formed; and • actions taken.
G9	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.
G10	The **activity** must be undertaken in accordance with written procedures that:

<table>
<tr><td></td><td>

identify potential risks to the environment from the activity during routine operations, closure and an emergency;
establish and maintain control measures that minimise the potential for environmental harm;
ensure plant, equipment and measures are maintained in a proper and effective condition;
ensure plant, equipment and measures are operated in a proper and effective manner;
ensure that staff are trained in and aware of their obligations under the Environmental Protection Act 1994; and
ensure that reviews of environmental performance are undertaken at least annually.

</td></tr>
<tr><td colspan="2">Agency interest: Air</td></tr>
<tr><td>Condition number</td><td>Condition</td></tr>
<tr><td>A1</td><td>Other than as permitted within this environmental authority, odours or airborne contaminants must not cause environmental nuisance at a sensitive place or commercial place.</td></tr>
<tr><td colspan="2">Agency interest: Land</td></tr>
<tr><td>Condition number</td><td>Condition</td></tr>
<tr><td>L1</td><td>The only contaminants to be released to land are treated wastewater in accordance with the Table 1 - Treated effluent release limits to irrigation area and the associated requirements.

Table 1 - Treated effluent release limits to irrigation area
<table>
<tr><th>Quality Characteristic (units)</th><th>Minimum</th><th>Median</th><th>Maximum</th><th>Monitoring frequency</th></tr>
<tr><td>Turbidity (NTU)</td><td>-</td><td>-</td><td>20</td><td>Daily</td></tr>
<tr><td>Total chlorine (mg/L)</td><td>-</td><td>-</td><td>5</td><td>Daily</td></tr>
<tr><td>Volume of irrigated water (L/day)</td><td>-</td><td>-</td><td>8,500</td><td>Daily</td></tr>
<tr><td>BOD5 (mg/L)</td><td>-</td><td>20</td><td>30</td><td>Bi-monthly</td></tr>
<tr><td>Total Suspended Solids (mg/L)</td><td>-</td><td>5</td><td>7.5</td><td>Bi-monthly</td></tr>
<tr><td>Total Nitrogen (mg/L as N)*</td><td>-</td><td>-</td><td>60</td><td>Monthly**</td></tr>
<tr><td>Total Phosphorus (mg/L as P)</td><td>-</td><td>-</td><td>10</td><td>Monthly**</td></tr>
<tr><td>pH (pH units)</td><td>6.5</td><td>-</td><td>8.5</td><td>Monthly</td></tr>
<tr><td>Enterococci /E.coli CFU/100ml)</td><td>-</td><td><10</td><td><15</td><td>Monthly</td></tr>
<tr><td>Electrical Conductivity (µS/cm)</td><td>-</td><td>-</td><td><1,600</td><td>Monthly</td></tr>
</table>
*note that this limit will correspond to a long term total nitrogen concentration of 30 mg/L;</td></tr>
</table>

Queensland Government

	Monthly for the first twelve (12) months of operation and then 2 monthly thereafter. If a release limit is exceeded, monitoring will revert to monthly for 4 months. **Associated requirements 1. Monitoring must be in accordance with the **administering authority**'s *Water Quality Sampling Manual* and all monitoring devices must be effectively calibrated and maintained; 2. Monitoring must be undertaken when treated sewage effluent is being irrigated, unless irrigation has ceased for longer than the relevant parameters specified minimum frequency; 3. 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; 4. Indicators for TN and TP are recommended to be done as grab samples; 5. Sampling to be undertaken at the outlet of the wet weather storage system (WWSS) for all parameters except for turbidity; 6. For turbidity, the recycled water shall be measured onsite daily immediately prior to the disinfection point; 7. Double disinfection must be adopted, and will include chlorination and UV; and 8. Total chlorine must not exceed 5 mg/L and must be measured onsite daily using a photometer.
L2	Activities conducted under this environmental authority must not be conducted contrary to the following limitations: 1. For Lot 75 Plan 8L8056 releases of treated effluent must occur over a minimum area of 2,500m^2 and not be outside of the land application area as shown *Appendix 1 – Lot 75 Plan 8L8056 Land Application Area*; 2. The vegetation within the land application area as shown in *Appendix 1 – Lot 75 Plan 8L8056 Land Application Area* must be predominantly kikuyu pasture; and 3. Irrigation water must be spread out evenly across the allocated land area
L3	Treated effluent released to land must be done in accordance with documentation that ensures: a. drainage to **groundwater** and subsurface flows of contaminants to surface waters are minimised; b. surface pondage and run-off of effluent is prevented; c. degradation of soil structure is minimised; d. soil sodicity and the build-up of nutrients and heavy metals in the soil and subsoil are minimised; e. spray drift or overspray does not carry beyond effluent disposal areas f. effluent disposal areas are maintained with an appropriate crop in a viable state for transpiration and nutrient uptake; g. sufficient buffer zones are maintained between irrigation sites and sensitive environmental receptors; and h. Periodical harvesting and harvested biomass must be removed from the irrigated land.
L4	When weather conditions or soil conditions preclude the release of treated sewage effluent to land, effluent must not be irrigated to land.
L5	The total capacity of wet weather storage must be no less than 42,500L.
L6	Treated sewage effluent may be removed from the site and used for an alternate purpose, with the written consent of any third party involved.

Agency interest: Water	
Condition number	**Condition**
WT1	Prior to the commencement of the activity a baseline groundwater assessment must be conducted, with up-gradient baseline groundwater conditions set and provided to the administering authority upon request.
WT2	A receiving environment monitoring program must be designed and implemented by an **appropriately qualified person(s)** to monitor the effects of the activity on groundwater.
WT3	The receiving environment monitoring program required by condition WT2, must include at least the following: a. be able to determine the impacts of the licensed activity on the groundwater quality in the underlying aquifer; b. include, but not be limited to, a sufficient number of bores (minimum of three) 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 that has not been affected by seepage or drainage of contaminants to groundwater from the activity; and ii. detect any seepage of contaminants to groundwater from the licensed place; and c. include monitoring of background groundwater quality, hydraulically up-gradient of any release of contaminants to groundwater; d. include monitoring of downstream groundwater quality, hydraulically down gradient of all storage ponds, sewage treatment plant and irrigation areas; e. include, but not limited to, monthly for the first six (6) months of operation and then at least biannually monitoring of the quality of groundwater to detect any possible release(s) of contaminants; f. Monitoring must be completed by an **appropriately qualified person** and as a minimum the following parameters must be analysed by a NATA accredited laboratory: i. pH; ii. electrical conductivity; iii. Total chlorine; iv. E.coli; v. BOD5; vi. Total nitrogen and total phosphorus; and g. consider the potential use of groundwater in the vicinity.
WT4	If downstream contaminant concentrations in groundwater increase above the determined up-gradient baseline conditions as required by condition WT1, WT2 and WT3, an **appropriately qualified person** must undertake necessary measures to reduce the irrigation rate or improve treatment quality accordingly to prevent impact to groundwater. Any surplus effluent caused by the reduction in irrigation rate must be removed by a licensed liquid waste contractor or as authorised under condition L6.

WT5	Results from the receiving environment monitoring program as required under condition WT2 and WT3 must be provided to the administering authority annually.
WT6	Stormwater contaminated by the activity must be managed to minimise or prevent any adverse effect on the environmental values of the receiving environment.
Agency interest: Waste	
Condition number	**Condition**
WS1	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 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.

Term	Definition
Activity	the environmentally relevant activity to which this environmental authority relates. An activity may be undertaken on the whole or a part of a site.
Appropriately qualified person	means a person or persons who has professional qualifications, training, skills and experience relevant to the EA requirements and can give authoritative assessment, advice and analysis in relation to the EA requirements using the relevant protocols, standards, methods or literature.
Aqueous waste	any aqueous waste including process water, water that has otherwise been used in the carrying out of the activity or sewage, whether or not the waste has been treated, but excluding stormwater.
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.
Category A or B environmentally sensitive area	as defined in Schedule 12, Part 1 of the Environmental Protection Regulation 2008.
Chemical	as defined in Schedule 12, Part 2 of the Environmental Protection Regulation 2008.
Combustion of fuel	does not include fuel used in explosives or by vehicles.
Contaminant(s)	as defined in Section 11 of the *Environmental Protection Act 1994.*
Day	means any 24 hour period.
Design Average Dry Weather Flow (DADWF)	means the average dry weather flow of the treatment plant at the design horizon.

Environmental harm	as defined in Section 14 of the *Environmental Protection Act 1994.*
Environmental nuisance	as defined in Section 15 of the *Environmental Protection Act 1994.*
Facility	the area used for carrying out the ERA including any buildings, disturbed areas or any associated infrastructure.
Land	land excluding waters and the atmosphere. Land includes land on the authorised place.
Minimise	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.
NATA	means National Association of Testing Authorities.
Nuisance sensitive place	nuisance sensitive place includes: • within or outside of a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises • within or outside of a motel, hotel or hostel • within or outside of a kindergarten, school, university or other educational institution • within or outside of a medical centre or hospital • within a protected area under the *Nature Conservation Act 1992*, within a marine park under the *Marine Parks Act 2004* or a world heritage area • within a public thoroughfare, park or gardens • within or outside of 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.
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.
Release of a contaminant into the environment	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.
Spring	the land to which water rises naturally from below the ground and the land over which the water then flows.
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.
Waters	all or any part of a creek, river, stream, lake, lagoon, swamp, wetland, spring, unconfined surface water, unconfined water in natural or artificial watercourses, bed and bank of any waters, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off, and underground water.
Watercourse	as defined in Section 8, Schedule 12 of the *Environmental Protection Regulation 2008*.
Wetland	as defined in Schedule 12 of the *Environmental Protection Regulation 2008*, means an area shown as a wetland on the map of referable wetlands.

Appendix

Appendix 1 – Lot 75 Plan 8L8056 Land Application Area

