Permit[1]

Environmental Protection Act 1994

Environmental authority

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

Permit[1] number: EPPR00543713

Environmental authority takes effect on 02 October 2015

The anniversary date of this environmental authority remains 30 September. An annual return and the payment of the annual fee will be due each year on this day.

Environmental authority holder(s)

Name	Registered address
The Salvation Army Gold Coast Recovery Services (Fairhaven) T/A The Salvation Army (QLD) Property Trust	168 MacDonnell Road EAGLE HEIGHTS QLD 4271

Environmentally relevant activity and location details

Environmentally relevant activity(ies)	Location(s)
63-(1a)(i) - operating sewage treatment works, other than no-release works, with a total daily peak design capacity of 21 to 100 EP if treated effluent is discharged from the works to an infiltration trench or through an irrigation scheme	168 MacDonnell Road, Eagle Heights - Lot 5 Plan SP253260 and Lot 132 Plan SP253260

Additional information for applicants

Environmentally relevant activities

The description of any environmentally relevant activity (ERA) for which an environmental authority is issued is a restatement of the ERA as defined by legislation at the time the approval is issued. Where there is any inconsistency between that description of an ERA and the conditions stated by an environmental authority as to the scale, intensity or manner of carrying out an ERA, then the conditions prevail to the extent of the inconsistency.

An environmental authority authorises the carrying out of an ERA and does not authorise any environmental harm unless a condition stated by the authority specifically authorises environmental harm.

[1] Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation

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 if an owner or occupier of land becomes aware a notifiable activity (as defined in Schedule 3 and Schedule 4) is being carried out on the land, or that the land has been, or is being, contaminated by a hazardous contaminant, the owner or occupier must, within 22 business days after becoming so aware, give written notice to the chief executive.

Signature	Date
JA.H.M.	2-10-2015.

James Mackenzie
Department of Environment and Heritage Protection
Delegate of the administering authority
Environmental Protection Act 1994

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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)

Conditions of environmental authority

The environmentally relevant activity(ies) 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	All reasonable and practicable measures must be taken to prevent the likelihood of environmental harm being caused.
G2	Any breach of a condition of this environmental authority must be reported to the **administering authority** as soon as practicable, or at most, within 24 hours of becoming aware of the breach. Records must be kept including full details of the breach and any subsequent actions undertaken.
G3	Other than as permitted by this environmental authority, the **release of a contaminant into the environment** must not occur.
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 **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.
G6	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. The only exception to this condition is for *in situ* monitoring of pH and electrical conductivity.
G7	When required by the **administering authority**, monitoring must be undertaken in the manner prescribed by the **administering authority**, to investigate a **complaint** not considered by the **administering authority** to be frivolous or vexatious, of **environmental nuisance** arising from the **activity**. The monitoring results must be provided to the **administering authority** upon request.

G8	The **activity** must be undertaken in accordance with written procedures that: a) identify potential risks to the environment from the **activity** during routine operations, closure and an emergency b) establish and maintain control measures that minimise the potential for environmental harm c) ensure plant, equipment and measures are maintained in a proper and effective condition d) ensure plant, equipment and measures are operated in a proper and effective manner e) ensure that staff are trained in and aware of their obligations under the *Environmental Protection Act 1994* f) ensure that reviews of environmental performance are undertaken at least annually.
G9	Storage of chemicals and fuels in bulk or in containers of greater than 15 litres must be within a **secondary containment system** and releases controlled in a manner that prevents environmental harm.
G10	Buffer zones must be maintained between the **activity** and the boundary of the specific environmental values in accordance with Table 1 – Buffer Zones. **Table 1 – Buffer Zones** **Environmental value** / **Minimum buffer distance** Bore used for domestic supply / 30m Watercourse wetland or spring / 100m Bore used for town water supply / 1000m
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**
WT1	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: Noise	
Condition number	**Condition**
N1	Noise from the activity must not cause an environmental nuisance at any noise affected premises.

<table>
<tr><th colspan="2">Agency interest: Land</th></tr>
<tr><th>Condition number</th><th>Condition</th></tr>
<tr><td>L1</td><td>The only contaminant to be released to land is treated sewage effluent in accordance with Table 2 and the associated requirements.
Table 2 – Treated effluent release limits to irrigation area
<table>
<tr><th>Quality characteristics</th><th>Units[1]</th><th>Minimum</th><th>Median</th><th>Maximum</th><th>Monitoring frequency 1[2, 5]</th><th>Monitoring frequency 2[2, 6]</th></tr>
<tr><td>Total nitrogen[3]</td><td>mg/L as nitrogen</td><td>-</td><td>-</td><td>45</td><td rowspan="5">Monthly</td><td rowspan="5">Quarterly</td></tr>
<tr><td>Total phosphorous[3]</td><td>mg/L as phosphorus</td><td>-</td><td>-</td><td>15</td></tr>
<tr><td>Electrical conductivity</td><td>microSiemens/cm</td><td>-</td><td>-</td><td>1600</td></tr>
<tr><td>pH</td><td>scale</td><td>6.0</td><td>-</td><td>8.5</td></tr>
<tr><td>E. coli</td><td>colony forming units/100mL</td><td>-</td><td><50[4]</td><td>100</td></tr>
</table>
NOTES:
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 (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).
3. Indicators for TN and TP are recommended to be done as grab samples.
4. Means median of five consecutive samples taken at not less than ½ hourly intervals
5. Monitoring Frequency 1 – Monitoring frequency to be implemented for a minimum of 3 months following any exceedance of quality characteristics.
6. Monitoring Frequency 2 – Monitoring frequency to be implemented following demonstrated compliance with quality characteristics for monitoring frequency 1.</td></tr>
<tr><td>L2</td><td>The maximum daily irrigation rate must not exceed 16,500 litres/day.</td></tr>
<tr><td>L3</td><td>Taking into account condition G10, the treated effluent must be evenly distributed over a minimum area of 0.9 hectares.</td></tr>
<tr><td>L4</td><td>Treated effluent released to land must be done in accordance with documentation that ensures:
a) effective monitoring locations are identified (including moisture, soil types and depths)
b) drainage to groundwater and subsurface flows of contaminants to surface waters are prevented
c) surface pondage and run-off of effluent is prevented
d) degradation of soil structure is minimised
e) soil sodicity and the build-up of nutrients and heavy metals in the soil and subsoil are minimised
f) spray drift or overspray does not carry beyond effluent disposal areas
g) effluent disposal areas are maintained with an appropriate crop in a viable state for transpiration and nutrient uptake
h) in addition to condition G10, sufficient buffer zones are maintained between irrigation sites and sensitive environmental receptors.
i) the crop on the disposal area is harvested and removed from the disposal area.</td></tr>
<tr><td>L5</td><td>When weather conditions or soil conditions preclude the release of treated sewage effluent to land, effluent must not be irrigated to land.</td></tr>
</table>

L6	Soil monitoring must be undertaken for topsoil and subsoil samples from representative sites in accordance with Table 3. **Table 3 – Soil monitoring parameters and frequency requirements**

Quality Characteristics	Units	Monitoring Frequency
pH	pH scale	Biennially
Specific Conductance or electrical conductivity (1:5)	µS/cm	Biennially
Calcium	mg/kg	Biennially
Magnesium	mg/kg	Biennially
Potassium	mg/kg	Biennially
Cation Exchange Capacity	meq/100g	Biennially
Exchangeable calcium	meq/100g	Biennially
Exchangeable magnesium	meq/100g	Biennially
Exchangeable sodium	meq/100g	Biennially
Exchangeable potassium	meq/100g	Biennially
Exchangeable aluminium	meq/100g	Biennially
Sodium Adsorption Ratio	ratio	Biennially
Total Nitrogen as N	mg/kg	Biennially
Extractable Phosphorus	mg/kg	Biennially
Boron	mg/kg	Biennially

Agency interest: Waste	
Condition number	**Condition**
WS1	Other than treated effluent released to land in accordance with condition (L1), all waste generated in carrying out the activity must be reused, recycled or lawfully disposed of offsite.

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.

Activity means the environmentally relevant activities, whether resource activities or prescribed activities, to which the environmental authority relates.

Administering authority means the Department of Environment and Heritage Protection or its successor or predecessors.

Appropriately qualified person(s) means a person or persons who has professional qualifications, training, skills or experience relevant to the nominated subject matter and can give authoritative assessment, advice and analysis to performance relative to the subject matter using the relevant protocols, standards, methods 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.

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

Median means the middle value, where half the data are smaller and half the data are larger. If the number of samples is even, the median is the arithmetic average of the two middle values.

NATA means National Association of Testing Authorities.

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

Offensive means causing offence or displeasure; is unreasonably disagreeable to the sense; disgusting, nauseous or repulsive.

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.

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 the following and includes a place within the curtilage of such a place reasonably used by persons at that place:

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 1992* or a World Heritage Area; or
f) a public thoroughfare, park or gardens; or

g) for noise, a place defined as a sensitive receptor for the purposes of the Environmental Protection (Noise) Policy 2008.

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.

END OF PERMIT