Permit

Environmental Protection Act 1994

Environmental authority EPPR00874613

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

Environmental authority number: EPPR00874613

Environmental authority takes effect on the day it is signed by the delegate.

The anniversary day of this environmental authority remains **23 August** every year. Payment of the annual fee will be due each year on this day.

Environmental authority holder

Name	Registered address
REDLAND CITY COUNCIL	55-59 Bloomfield Street, CLEVELAND QLD 4163

Environmentally relevant activity and location details

Environmentally relevant activities	Locations
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 1500EP if treated effluent is discharged from the works to an infiltration trench or through an irrigation scheme	Lot 1 on SP117361
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 1500EP if treated effluent is discharged from the works to an infiltration trench or through an irrigation scheme	Lot 2 on SP117361
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 1500EP if treated effluent is	Lot 155 on SL8602

Queensland Government

Environmentally relevant activities	Locations
discharged from the works to an infiltration trench or through an irrigation scheme	
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 1500EP if treated effluent is discharged from the works to an infiltration trench or through an irrigation scheme	Lot 67 on SP104056
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 1500EP if treated effluent is discharged from the works to an infiltration trench or through an irrigation scheme	Lot 123 on SP311721
ERA 63 - Sewage Treatment 1: Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of (e) more than 10,000 but not more than 50,000EP	Lot 3 on SP117639
ERA 63 - Sewage Treatment 1: Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of (e) more than 10,000 but not more than 50,000EP	Lot 2 on SP232577
ERA 63 - Sewage Treatment 1: Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of (e) more than 10,000 but not more than 50,000EP	Lot 2 on SP247793
ERA 63 - Sewage Treatment 1: Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of (e) more than 10,000 but not more than 50,000EP	Lot 2 on SP231112
ERA 63 - Sewage Treatment 1: Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of (e) more than 10,000 but not more than 50,000EP	Lot 2 on SP234806
ERA 63 - Sewage Treatment 1: Operating sewage treatment works, other than no-release works, with a	Lot 131 on SP164078

Environmentally relevant activities	Locations
total daily peak design capacity of (d) more than 4000 but not more than 10,000EP	
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 2 on RP14192
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 140 on SP318848
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 600 on RP884622
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 9 on SP277800
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 1 on RP895239
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 7 on RP181610
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 4 on CP863368
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 901 on SP159679
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 902 on RP807249
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 2 on RP173495
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 97 on RP14138
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 5 on SP235921
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 100 on SP106226
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 1 on RP168192
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 1 on SP236501

Environmentally relevant activities	Locations
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 1 on RP222445
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 104 on RP14114
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 42 on RP132611
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 2 on RP209639
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 3 on RP173517
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 7 on SP234806
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 1 on CP857140
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 1 on RP173540
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 200 on RP883835
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 250 on RP153880
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 120 on SP117636
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 157 on SL9394
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 3 on RP174082
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 53 on RP117618
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 48 on SP306495
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 2 on RP220122

Environmentally relevant activities	Locations
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 19 on SP168495
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	PS 154, 60 Tageruba Street, COOCHIEMUDLO ISLAND QLD 4184, Lot 6 on RP92550
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	PS 36, 299 Main Road WELLINGTON POINT QLD 4160, adjacent to Lot 0 on GTP105792
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	PS 48 32 Victor Street, BIRKDALE QLD 4159, adjacent Lot 9 on RP205315
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	PS 67, 66 Fir Street, VICTORIA POINT QLD 4165, adjacent Lot 21 on 198360
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 167 on CP884275
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 802 on SP137445
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 903 on SP277255
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Adjacent to Lot 2 on RP123972
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Adjacent to Lot 54 on SP161605
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Adjacent to Lot 1 on RP897334
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 3 on SP244192
ERA 63 - Sewage Treatment 2: Operating a sewage pumping station mentioned in subsection (1)(b)	Lot 7000 on SP324835

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- one 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.

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.

	22 September 2025
Signature	Date

Calvin Quick
Department of the Environment, Tourism, Science and Innovation
Delegate of the administering authority
Environmental Protection Act 1994

Enquiries:
Utilities and Government Organisations Assessment
Department of the Enivironment, Tourism, Science and Innovation
GPO Box 2454 BRISBANE QLD 4001
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 Natural Resources, Mines and Energy (to clear vegetation), and the Department of Agriculture and Fisheries (to clear marine plants or to obtain a quarry material allocation).

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

Section 1 – Sewage Treatment Activities

Part 1 – General Conditions

Section one (1) Waste water Treatment Plants			
Environmentally relevant activities	**Locations**		**Description**
63-(1b)(i) Sewage treatment >100 to 1500EP - IT or IR	DUNWICH Ballow Road	Lot 1 on SP117361	WWTP site
		Lot 2 on SP117361	Pipe to irrigation
		Lot part 155 on SL8602	Irrigation tank
		Lot part 67 on SP104056	Irrigation field
		Lot 123 on SP311721	Irrigation area surrounding
63-(1e) Sewage treatment >10000 to 50000EP	MOUNT COTTON German Church Road	Lot 3 on SP117639	WWTP site
63-(1e) Sewage treatment >10000 to 50000EP	VICTORIA POINT Link Road	Lot 2 on SP232577	WWTP site
63-(1e) Sewage treatment >10000 to 50000EP	THORNESIDE Rickertt Road	Lot 2 on SP247793	WWTP site
63-(1e) Sewage treatment >10000 to 50000EP	CAPALABA Smith street	Lot 2 on SP231112	WWTP site
63-(1e) Sewage treatment >10000 to 50000EP	CLEVELAND Weippin Street	Lot 2 on SP234806	WWTP site and irrigation areas.
63-(1d) Sewage treatment >4000 to 10000EP	POINT LOOKOUT Tramican Street	Lot 131 on SP164078	WWTP site

The environmentally relevant activities conducted at the locations as described above must also be conducted in accordance with the site-specific conditions as mentioned in this permit.

Agency interest: General	
Condition number	**Condition**
G1-1	All reasonable and practicable **measures** must be taken to prevent the likelihood of environmental harm being caused.
G1-2	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.
G1-3	Other than as permitted by this environmental authority, the **release of a contaminant into the environment** must not occur.

G1-4	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.
G1-5	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.
G1-6	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, dissolved oxygen (DO) and chlorine.
G1-7	An annual monitoring report must be prepared and submitted to the **administering authority** by 30 November each year, for the preceding financial year.
G1-8	**You** must record the following details for all environmental **complaints** received: a) date and time complaint was received; b) name and contact details of the complainant; c) nature of the complaint; d) investigations undertaken; e) conclusions formed; and f) actions taken.
G1-9	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.
G1-10	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.
G1-11	Chemicals and fuels in containers of greater than 15 litres must be stored within a **secondary containment system.**

Agency interest: Air	
Condition number	**Condition**
A1-1	Odours or airborne contaminants must not cause **environmental nuisance** at a **sensitive place** or **commercial place**.
Agency interest: Waste	
Condition number	**Condition**
W1-1	All waste generated in carrying out the **activity** must be lawfully reused, recycled, or removed to a facility that can lawfully accept the waste.
W1-2	Waste must only be removed from the site by a transporter **lawfully** able to **transport** it to a place **lawfully** able to **receive** it.
Agency interest: Land	
Condition number	**Condition**
L1-1	Treated sewage effluent may be removed from the site and used for an alternate purpose, with the written consent of any third party involved.
L1-2	The only places to which the irrigation of treated effluent is authorised are defined as: a) Landscaped areas of the approved place; or b) Other areas subject to the requirements of the site specific conditions for land.

Part 2 – Site specific conditions

Environmentally relevant activity	Location	
63-(1b)(i) Sewage treatment >100 to 1500EP - IT or IR	DUNWICH Ballow Road North Stradbroke Island	Lot 1 on SP117361
		Lot 2 on SP117361
		Lot part 155 on SL8602
		Lot part 67 on SP104056
		Lot 123 on SP311721

In addition to Part 1 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**
G2-1	**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 5 times the **Design Average Dry Weather Flow** (DADWF) of 1.15ML/**day** (DADWF = 0.23ML/**day**).
G2-2	A receiving environment monitoring program must be designed and implemented by **appropriately qualified persons** to monitor the effects of the **activity** on groundwater.
G2-3	The receiving environment monitoring program required by condition G2-2, 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; and (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**; and (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, six monthly monitoring of the quality of **groundwater** to detect any possible release(s) of contaminants; (f) consider the potential use of **groundwater** in the vicinity; and (g) provide method(s) for measuring trends and triggering investigative action.

G2-4

Groundwater quality monitoring required by condition G2-3, must be undertaken of the parameters and at the locations and frequency defined in *Part 2, Table 1 – Groundwater monitoring program* and in *Part 2, Figure 1 – Dunwich Irrigation Area*.

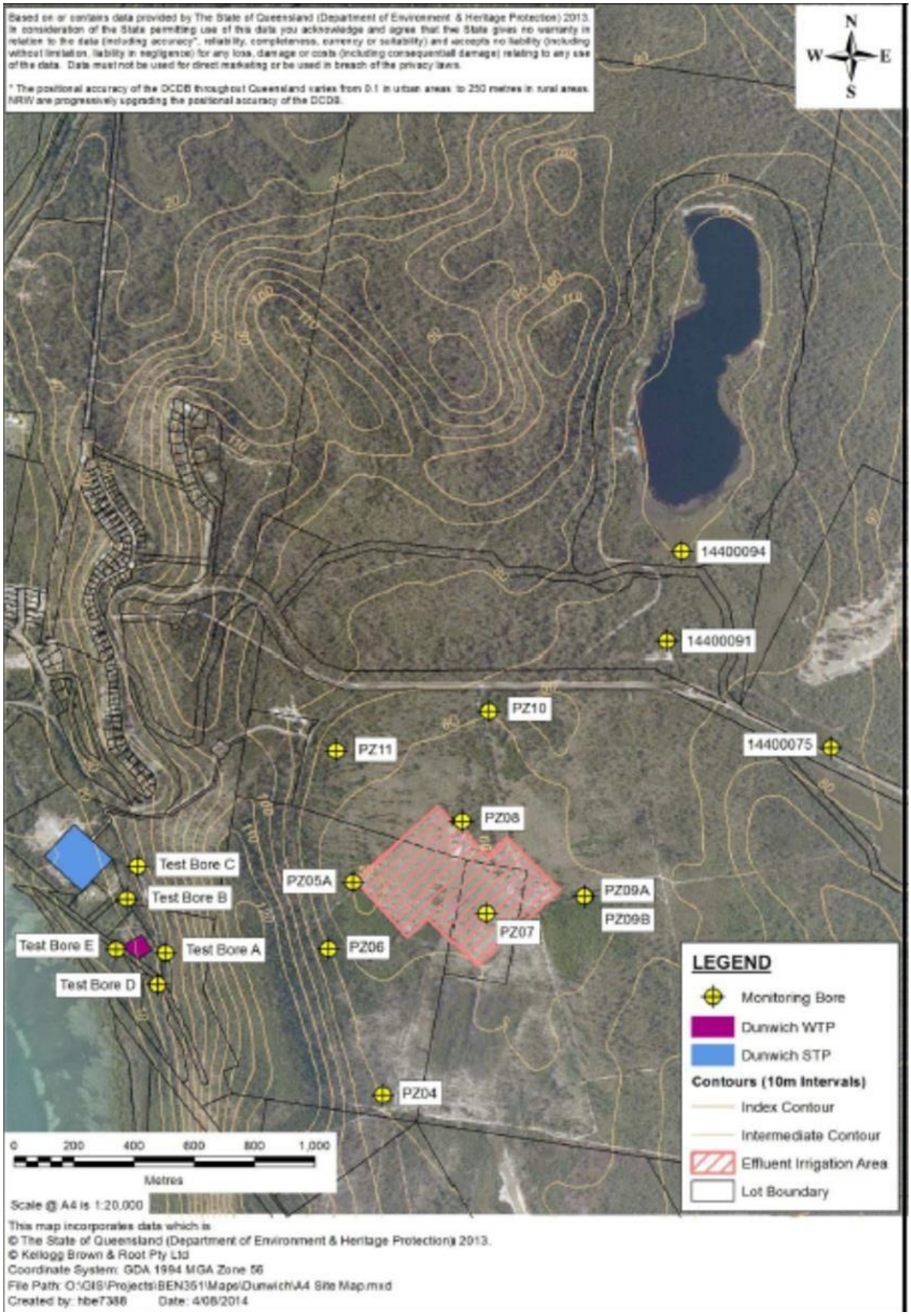
Part 2, Table 1 – Groundwater monitoring program

Groundwater bore location and ID	Groundwater parameters (units)	Sampling frequency
Up-gradient of Irrigation Area (background): 14400075; 14400091; 14400094; PZ11; PZ10 Vicinity of Irrigation Area: PZ09A; PZ09B; PZ08; PZ07; PZ05A Down-gradient of Irrigation Area PZ04; PZ06, Test Bore A; Test Bore B; Test Bore C; Test Bore D; Test Bore E	Electrical Conductivity (µS/cm)	Quarterly
	pH	
	Temperature (°C) (measured in field)	
	Static Water Levels	
	Nitrogen as: - Nitrate (mg/L) - Nitrite (mg/L) - Ammonia (mg/L)	
	Total Nitrogen (mg/L)	
	Phosphorus (mg/L)	
	Total Dissolved Solids (TDS) (mg/L)	
	Total Organic Carbon (TOC) (mg/L)	
	Metals – measured in (mg/L) As, Cd, Cr, Cu, Pb, Hg, Ni, Zn	Annually
	Major Ions – measured in (mg/L) - Na, K, Ca, Mg, SO4, C1, Co3, HCO3	

<table>
<tr><th colspan="2">Agency interest: Land</th></tr>
<tr><th>Condition number</th><th>Condition</th></tr>
<tr><td>L2-1</td><td>The only contaminants to be released to land are treated sewage effluent in accordance with Part 2, Table 2 – Treated effluent release limits to the irrigation area and the associated requirements.
Part 2, Table 2 – Treated effluent release limits to irrigation area*
<table>
<tr><th>Quality Characteristics</th><th>Release Limits</th><th>Limit Type</th><th>Monitoring Frequency</th></tr>
<tr><td rowspan="3">5-day Biochemical Oxygen Demand (inhibited) (mg/L)</td><td>10</td><td>Long term 80th percentile compliance</td><td>Monthly</td></tr>
<tr><td>15</td><td>Short term 80th percentile compliance</td><td>Monthly</td></tr>
<tr><td>30</td><td>Maximum</td><td>Monthly</td></tr>
<tr><td rowspan="3">Total Nitrogen (as Nitrogen) (mg/L)</td><td>10</td><td>Long term 50th percentile compliance</td><td>Monthly</td></tr>
<tr><td>15</td><td>Short term 50th percentile compliance</td><td>Monthly</td></tr>
<tr><td>30</td><td>Maximum</td><td>Monthly</td></tr>
<tr><td rowspan="3">Total Phosphorus (as Phosphorus) (mg/L)</td><td>2</td><td>Long term 50th percentile compliance</td><td>Monthly</td></tr>
<tr><td>3</td><td>Short term 50th percentile compliance</td><td>Monthly</td></tr>
<tr><td>6</td><td>Maximum</td><td>Monthly</td></tr>
<tr><td rowspan="3">Suspended Solids (mg/L)</td><td>10</td><td>Long term 80th percentile compliance</td><td>Monthly</td></tr>
<tr><td>15</td><td>Short term 80th percentile compliance</td><td>Monthly</td></tr>
<tr><td>30</td><td>Maximum</td><td>Monthly</td></tr>
<tr><td>pH (pH units)</td><td>6.5 to 8.5</td><td>Range</td><td>Monthly</td></tr>
<tr><td>Dissolved Oxygen (mg/L)</td><td>2</td><td>Minimum</td><td>Monthly</td></tr>
<tr><td rowspan="2">Faecal Coliforms - Effluent Groundwater infusion (cfu/100mL)</td><td>1000</td><td>The median value of 5 consecutive samples taken at regular intervals of not less frequently than half-hourly intervals in any one day must not exceed the release limit</td><td>Monthly</td></tr>
<tr><td>4000</td><td>Maximum - four out of five consecutive samples taken at regular intervals of not less frequently than half-hourly intervals in any one day must not exceed the release limit</td><td>Monthly</td></tr>
</table>
Note: an irrigation area of 17 hectares must be provided and maintained as outlined in Figure 1 – Dunwich Irrigation Area.</td></tr>
<tr><td>L2-2</td><td>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 prevented;
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 area;
f) effluent disposal areas are maintained with an appropriate crop in a viable state for transpiration and nutrient uptake; and</td></tr>
</table>

<table>
<tr><td></td><td>g) sufficient buffer zone is maintained between irrigation sites and sensitive environmental receptors.</td></tr>
<tr><td>L2-3</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>
<tr><td colspan="2">Agency interest: Noise</td></tr>
<tr><td>Condition number</td><td>Condition</td></tr>
<tr><td>N2-1</td><td>Noise from the activity must not exceed the levels identified in Part 2, Table 3 – Noise limits and the associated requirements at the premises to which this environmental authority relates.
Part 2, Table 3 – Noise limits
<table>
<tr><th>Noise Level at a Noise Sensitive Place Measured as the Adjusted Maximum Sound Pressure Level $L_{Amax\ adj,\ T}$</th><th>Period</th></tr>
<tr><td>Background noise level plus 5 dB(A)</td><td>7 am - 6pm</td></tr>
<tr><td>Background noise level plus 5 dB(A)</td><td>6 pm - 10 pm</td></tr>
<tr><td>Background noise level plus 3 dB(A)</td><td>10pm- 7 am</td></tr>
<tr><td>Noise Limits at a Commercial Place Measured as the Adjusted Maximum Sound Pressure Level $L_{Amax\ adj,\ T}$</td><td>Period</td></tr>
<tr><td>Background noise level plus 10 dB(A)</td><td>7 am - 6 pm</td></tr>
<tr><td>Background noise level plus 10 dB(A)</td><td>6 pm - 10 pm</td></tr>
<tr><td>Background noise level plus 8 dB(A)</td><td>10 pm- 7 am</td></tr>
</table></td></tr>
</table>

Part 2, Figure 1 – Dunwich Irrigation Area



Part 3 – Site specific conditions

Environmentally relevant activity	Location	
63-(1e) Sewage treatment >10000 to 50000EP	MOUNT COTTON German Church Road	Lot 3 on SP117639

In addition to Part 1 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**
G3-1	**Activities** conducted under this environmental authority must not be conducted contrary to any of the following limitations: a) Inflows must not exceed the peak design capacity of 5 times the **Design Average Dry Weather Flow** (DADWF) of 8ML/**day** (DADWF = 1.6ML/**day**).
Agency interest: Water	
Condition number	**Condition**
WT3-1	The only contaminants to be released to surface **waters,** excluding bypass releases covered by conditions WT3-4 and WT3-6, are from the sewage treatment plant to **waters** described as the Logan River at release point W1 in accordance with *Part 3, Table 1 – Surface water release limits* and the associated requirements. **Release Point W1** Sewage wastes from the treatment plant via an impoundment on the Carbrook Golf Club at 701-771 Beenleigh Redland Bay Road, Carbrook on land described as Lot 2 on RP851213, Parish of Redland, County of Stanley to **waters** described as the Logan River at 10.5 kilometres AMTD.

Part 3, Table 1 – Surface water release limits

Quality Characteristics	Release Limits	Limit Type
Annual volume (**dry weather**)	584 (ML)	Maximum
5-day Biochemical Oxygen Demand (inhibited)	10 mg/L	**Long term** 80th percentile compliance
5-day Biochemical Oxygen Demand (inhibited)	15 mg/L	**Short term 80th** percentile compliance
5-day Biochemical Oxygen Demand (inhibited)	30 mg/L	Maximum
Suspended Solids	15 mg/L	**Long term** 80th percentile compliance
Suspended Solids	23 mg/L	**Short term 80th** percentile compliance
Suspended Solids	45 mg/L	Maximum
pH	6.5 to 8.5	**Range**
Dissolved Oxygen	2.0 mg/L	**Minimum**
Total Nitrogen (as Nitrogen)	5.0 mg/L	**Long term** 50th percentile compliance

Total Nitrogen (as Nitrogen)	7.5 mg/L	**Short term 50th** percentile compliance
Total Nitrogen (as Nitrogen)	15.0 mg/L	Maximum
Total Phosphorus (as Phosphorus)	2.0 mg/L	**Long term** 50th percentile compliance
Total Phosphorus (as Phosphorus)	3.0 mg/L	**Short term 50th** percentile compliance
Total Phosphorus (as Phosphorus)	6.0 mg/L	Maximum
Faecal Coliforms	1000 organisms per 100 mL as a **median** value (**minimum** of 5 samples taken at not less than half-hourly intervals in any one day, with 4 out of the 5 samples containing less than 4000 organisms per 100 mL)	

WT3-2 Monitoring of contaminant releases to **waters** must be undertaken in accordance with *Part 3, Table 2 – Monitoring frequency* and the associated monitoring requirements and records of the results must be kept.

Part 3, Table 2 – Monitoring frequency

Quality Characteristic	Units	Frequency
5-day Biochemical Oxygen Demand	mg/L	Weekly
Suspended Solids	mg/L	Weekly
pH	pH scale	Weekly
Dissolved Oxygen	mg/L	Weekly
Faecal Coliforms	cfu/100 mL	Weekly
Total Nitrogen (as Nitrogen)	mg/L	Weekly
Ammonia (as Nitrogen)	mg/L	Weekly
Total Phosphorus (as Phosphorus)	mg/L	Weekly
Free Chlorine Residual	mg/L	Weekly
Total Available Chlorine	mg/L	Weekly

WT3-3 In addition to WT3-1, the release to **waters** must not produce any slick or other visible evidence of oil or grease, nor contain visible floating oil, grease, scum, litter, or other visually objectionable mater.

WT3-4 **Bypass** releases must be screened prior to being released.

WT3-5 The **administering authority** must be notified within 24 hours of any **bypass** release ceasing.

WT3-6 The following details must be recorded in relation to each **bypass** release:

a) the start time, date and duration of the release;
b) the estimated volume of the **bypass** release;
c) the level of treatment at the sewage treatment plant prior to discharge;
d) the cause of the release; and
e) any monitoring of the water quality released.

WT3-7 A receiving environment monitoring program must be designed and implemented by **appropriately qualified persons** to monitor the effects of the **activity** on the receiving environment as specified in *Part 3, Table 3 – Receiving environment*.

Part 3, Table 3 – Receiving environment

ERA Site	Receiving environment for that ERA Site
Mt Cotton WWTP	(i) Logan River; and (ii) Moreton Bay

WT3-8	The receiving environment monitoring program required by condition WT3-7, must: (i) submit a proposal for the Receiving Environment Monitoring Program to the **administering authority** for its review and comment: a) in the case of the suitable registered operator not becoming a "participating member" as defined in condition WT3-9, 90 days from the date this environmental authority takes effect; or b) in the case of the suitable registered operator ceasing to be a "participating member" as defined in condition WT3-9, 60 days from the date the suitable registered operator ceases to be a "participating member"; and (ii) ensure the proposed program describes and addresses at least the following: i) description of potentially affected environment including key communities and ambient water quality; ii) description of water quality objectives and biological objectives to be achieved; iii) description of selected physico-chemical and biological indicators and reasons for their inclusion; iv) the proposed monitoring locations including control locations and reasons for their selection; v) the proposed sampling depths; vi) the frequency of sampling and analysis; vii) any historical data sets to be relied upon; and viii) description of the statistical basis on which conclusions are drawn; and (iii) to have due regard to the comments of the **administering authority** in the finalisation of the Receiving Environment Monitoring Program.
WT3-9	As an alternative to developing and implementing a Receiving Environment Monitoring Program for Moreton Bay and other specified receiving **waters**, the suitable registered operator may become and remain a "participating member" in a study carried out by other persons or agencies that meets the requirements of conditions WT3-10 to WT3-11 inclusive (the equivalent study), for example, the Brisbane River and Moreton Bay Wastewater Management Study or the Logan Coomera South Moreton Bay Regional Wastewater Management Study or the South East Queensland Water Quality Monitoring Program. A "participating member" for the purposes of condition WT3-8 and the conditions WT3-9 to WT311 inclusive means that the suitable registered operator actively participates in the equivalent study and is identified as a "participating member" in a written statement to the **administering authority** from the Department of Environment (Scientific Assessment Section) within one (1) month of the date of issue of this environmental authority.
WT3-10	The suitable registered operator will be deemed to comply with conditions WT3-7 to WT3-8, in so far as they relate to Moreton Bay and other specified receiving **waters**, so long as the suitable registered operator continues to be a "participating member" in an equivalent study. In the event that the suitable registered operator ceases to be a "participating member" in an equivalent study, then the suitable registered operator must within sixty (60) days submit a proposal for a receiving Environment Monitoring Program in accordance with condition WT3-8.
WT3-11	If the suitable registered operator ceases to be to be a participating member in an equivalent study, then the suitable registered operator must within fourteen (14) days notify the **administering authority** in writing that they are no longer a "participating member".

<table>
<tr><th colspan="2">Agency interest: Noise</th></tr>
<tr><th>Condition number</th><th>Condition</th></tr>
<tr><td>N3-1</td><td>Noise from the activity must not exceed the levels identified in Part 3, Table 4 – Noise limits and the associated requirements at the premises to which this environmental authority relates.
Part 3, Table 4 – Noise limits
<table>
<tr><td>Noise Level at a Noise Sensitive Place Measured as the Adjusted Maximum Sound Pressure Level $L_{Amax\ adj,\ T}$</td><td>Period</td></tr>
<tr><td>Background noise level plus 5 dB(A)</td><td>7 am - 6 pm</td></tr>
<tr><td>Background noise level plus 5 dB(A)</td><td>6 pm - 10 pm</td></tr>
<tr><td>Background noise level plus 3 dB(A)</td><td>10 pm - 7 am</td></tr>
<tr><td>Noise Level at a Commercial Place Measured as the Adjusted Maximum Sound Pressure Level $L_{Amax\ adj,\ T}$</td><td>Period</td></tr>
<tr><td>Background noise level plus 10 dB(A)</td><td>7 am - 6 pm</td></tr>
<tr><td>Background noise level plus 10 dB(A)</td><td>6 pm - 10 pm</td></tr>
<tr><td>Background noise level plus 8 dB(A)</td><td>10 pm - 7 am</td></tr>
</table></td></tr>
</table>

Part 4 – Site specific conditions

Environmentally relevant activity	Location	
63-(1e) Sewage treatment >10000 to 50000EP	VICTORIA POINT Link Road	Lot 2 on SP232577

In addition to Part 1 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**
G4-1	**Activities** conducted under this environmental authority must not be conducted contrary to any of the following limitations: a) Inflows must not exceed the peak design capacity of 5 times the **Design Average Dry Weather Flow** (DADWF) of 42.5ML/**day** (DADWF = 8.5ML/**day**).
Agency interest: Water	
Condition number	**Condition**
WT4-1	The only contaminants to be released to surface **waters** are from the sewage treatment plant to **waters** described as Eprapah Creek at release point W1 in accordance with *Part 4, Table 1 – Surface water release limits* and the associated requirements. **Release Point W1** Sewage wastes from the treatment plant via an outfall pipe to **Waters** described as Eprapah Creek at 2.6km AMTD.

Part 4, Table 1 – Surface water release limits

Quality Characteristics	Release Limit		Limit Type
	1st Stage[1]	2nd Stage[1]	
5-day Biochemical Oxygen Demand (inhibited) (mg/L)	10	10	**Long term** 80th percentile compliance
5-day Biochemical Oxygen Demand (inhibited) (mg/L)	15	15	**Short term 80th** percentile compliance
5-day Biochemical Oxygen Demand (inhibited) (mg/L)	30	30	Maximum
Suspended Solids (mg/L)	10	10	**Long term** 80th percentile compliance
Suspended Solids (mg/L)	15	15	**Short term 80th** percentile compliance
Suspended Solids (mg/L)	30	30	Maximum
pH	6.5 – 8.5	6.5 – 8.5	**Range**
Dissolved Oxygen (mg/L)	2	2	**Minimum**
Total Nitrogen (mg N/L)	3	2	**Long term** 50th percentile compliance
Total Nitrogen (mg N/L)	5	3	**Short term 50th** percentile compliance
Total Nitrogen (mg N/L)	9	6	Maximum
Total Phosphorous (mg P/L)	5	4	**Long term** 50th percentile compliance

	Total Phosphorus (mg P/L)	10	6	**Short term 50th** percentile compliance
	Total Phosphorus (mg P/L)	15	12	Maximum
	Free Chlorine Residual (mg/L)	0.7	0.7	Maximum
	Faecal Coliforms	150 organisms per 100 mL as a **median** value (**minimum** of 5 samples taken at not less than half-hourly intervals in any one day, with 4 out of the 5 samples containing less than 600 organisms per 100 mL)		
	Note 1: *Second stage Nitrogen limits shall come into effect when the* ***long term*** *50 percentile total effluent Nitrogen load from the plant reaches 13.5 kg N/day.* *The* ***long term*** *50 percentile total effluent Nitrogen load from the plant must not exceed 13.5 kg N/day.* *Second stage Phosphorus limits are based on blend of 6.9 mg P/L from the existing plant and 2 mg P/L from the new plant.*			

WT4-2

Monitoring of contaminant releases to **waters** must be undertaken in accordance with *Part 4, Table 2 – Monitoring frequency* and the associated monitoring requirements and records of the results must be kept.

Part 4, Table 2 – Monitoring frequency

Quality Characteristic	Units	Frequency
5-day Biochemical Oxygen Demand	mg/L	Weekly
Suspended Solids	mg/L	Weekly
pH	pH scale	Weekly
Dissolved Oxygen	mg/L	Weekly
Free Chlorine Residual	mg/L	Weekly
Faecal Coliforms	cfu/100 mL	Weekly
Total Nitrogen (as Nitrogen)	mg/L	Weekly
Total Phosphorus (as Phosphorus)	mg/L	Weekly

WT4-3

In addition to WT4-1, the release to **waters** must not produce any slick or other visible evidence of oil or grease, nor contain visible floating oil, grease, scum, litter, or other visually objectionable matter.

WT4-4

A receiving environment monitoring program must be designed and implemented by **appropriately qualified persons** to monitor the effects of the **activity** on the receiving environment.
"Receiving environment" for the purpose of the Receiving Environment Monitoring Program, means the receiving environment at Eprapah Creek and Moreton Bay.

WT4-5	The receiving environment monitoring program required by WT4-4, must: (i) submit a proposal for the Receiving Environment Monitoring Program to the **administering authority** for its review and comment: a. in the case of the holder of this environmental authority not becoming a "participating member" as defined in condition number WT4-8, 90 days from the date this environmental authority takes effect: or b. in the case of the holder of this environmental authority ceasing to be a "participating member" as defined in condition number WT4-8, 60 days from the date the holder of this environmental authority ceases to be a "participating member"; and (ii) ensure the proposed program describes and addresses at least the following: a. description of potentially affected environment including key communities and ambient water quality; b. description of water quality objectives and biological objectives to be achieved; c. description of selected physico-chemical and biological indicators and reasons for their inclusion; d. the proposed monitoring locations including control locations and reasons for their selection; e. the proposed sampling depths; f. the frequency of sampling and analysis; g. any historical data sets to be relied upon; and h. description of the statistical basis on which conclusions are drawn; and (iii) have due regard to the comments of the **administering authority** in the finalisation of the Receiving Environmental Monitoring Program.
WT4-6	As an alternative to developing and implementing a Receiving Environmental Monitoring Program for Eprapah Creek and Moreton Bay, the holder of this environmental authority may become and remain a "participating member" in a study carried out by other persons or agencies that meets the requirements of conditions number WT4-4 to WT4-5 inclusive (the equivalent study), such as, the Southeast Queensland Regional Water Quality Management Strategy and the Ecological Health Monitoring Program to be carried out under the Strategy. A "participating member" for the purposes of condition number WT4-5 and the conditions number WT4-7 to WT4-8 inclusive means that the holder of this environmental authority actively participates in the equivalent study and any monitoring program resulting from such study.
WT4-7	The holder of this Environmental Authority will be deemed to comply with conditions WT4-4 to WT4-5 in so far as they relate to Eprapah Creek and Moreton Bay, so long as the holder of this Environmental Authority continues to be a "participating member" in an equivalent study. In the event that the holder of this environmental authority ceases to be a "participating member" in an equivalent study, then the holder of this environmental authority must within sixty (60) **days** submit a proposal for a Receiving Environmental Monitoring Program in accordance with condition WT4-5.
WT4-8	If the holder of this environmental authority ceases to be a "participating member "in an equivalent study, then the holder of this environmental authority must within fourteen (14) days notify the **administering authority** in writing that they are no longer a "participating member".

Agency interest: Noise	
Condition number	**Condition**
N4-1	Noise from the **activity** must not exceed the levels identified in *Part 4, Table 3 – Noise limits* and the associated requirements at the premises to which this environmental authority relates.

Part 4, Table 3 – Noise limits

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
$L_{A\ 10,\ adj,\ 10mins}$	55	50	40	55	50	40
$L_{A\ 1,\ adj,\ 10mins}$	60	55	45	60	55	45
Noise Level dB(A) measured as	**Noise measured at a "Commercial Place"**					
	Monday to Saturday			**Sundays and public holidays**		
	7am - 6pm	**6pm - 10pm**	**10pm - 7am**	**9am - 6pm**	6pm - 10pm	**10pm - 9am**
$L_{A\ 10,\ adj,\ 10mins}$	60	55	45	60	55	45
$L_{A1,\ adj,\ 10mins}$	65	60	55	65	60	50

Part 5 – Site specific conditions

Environmentally relevant activity	Location	
63-(1e) Sewage treatment >10000 to 50000EP	THORNESIDE Rickertt Road	Lot 2 on SP247793

In addition to Part 1 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: Water	
Condition number	**Condition**
WT5-1	The only contaminants to be released to surface **waters**, excluding releases covered by conditions WT5-1 and WT5-7, from the sewage treatment plant to **waters** described as Tingalpa Creek at release point W1 in accordance with *Part 5, Table 1 – Surface water release limits* and the associated requirements.

Release Point W1 Sewage wastes from the treatment plant via an outfall pipe to **waters** described as Tingalpa Creek at 1.3 km AMTD.

Part 5, Table 1 - Release Quality Characteristic Limits

Quality Characteristics	Release Limit	Limit Type
5-day Biochemical Oxygen Demand (inhibited)	10 mg/L	**Long term** 80th percentile compliance
5-day Biochemical Oxygen Demand (inhibited)	15 mg/L	**Short term 80th** percentile compliance

	5-day Biochemical Oxygen Demand (inhibited)	30 mg/L	Maximum
	Suspended Solids	15 mg/L	**Long term** 80th percentile compliance
	Suspended Solids	23 mg/L	**Short term 80th** percentile
	Suspended Solids	45 mg/L	Maximum
	pH	6.5 to 8.5	**Range**
	Dissolved Oxygen	2.0 mg/L	**Minimum**
	Total Nitrogen (as Nitrogen)	5.0 mg/L	**Long term** 50th percentile compliance
	Total Nitrogen (as Nitrogen)	7.5 mg/L	**Short term 50th** percentile compliance
	Total Nitrogen (as Nitrogen)	15.0 mg/L	Maximum
	Total Phosphorus (as Phosphorus)	2.0 mg/L	**Long term** 50th percentile compliance
	Total Phosphorus (as Phosphorus)	3.0 mg/L	**Short term 50th** percentile compliance
	Total Phosphorus (as Phosphorus)	6.0 mg/L	Maximum
	Free Chlorine Residual	0.7 mg/L	Maximum
	Faecal Coliforms	1000 organisms per 100 mL as a **median** value (**minimum** of 5 samples taken at not less than half-hourly intervals in any one day, with 4 out of the 5 samples containing less than 4000 organisms per 100 mL)	

WT5-2 Monitoring of contaminant releases to **waters** must be undertaken in accordance with Part 5, *Table 2 – Monitoring frequency* and the associated monitoring requirements and records of the results must be kept.

Part 5, Table 2 – Monitoring frequency

Quality Characteristic	Units	Frequency
5-day Biochemical Oxygen Demand	mg/L	Weekly
Suspended Solids	mg/L	Weekly
pH	pH scale	Weekly
Dissolved Oxygen	mg/L	Weekly
Free Chlorine Residual	mg/L	Weekly
Faecal Coliforms	cfu/100 mL	Weekly
Total Nitrogen (as Nitrogen)	mg/L	Weekly
Ammonia (as Nitrogen)	mg/L	Weekly
Total Phosphorus (as Phosphorus)	mg/L	Weekly

WT5-3 In addition to WT5-1, the release to **waters** must not produce any slick or other visible evidence of oil or grease, nor contain visible floating oil, grease, scum, litter, or other visually objectionable matter.

WT5-4 The total quantity of contaminants released from release point W1 during any **dry weather day** must not exceed 12.75ML and in any day must not exceed 37.5ML.

WT5-5 **Bypass** releases must be screened prior to being released.

<table>
<tr><td>WT5-6</td><td>The administering authority must be notified within 24 hours of any bypass release ceasing.</td></tr>
<tr><td>WT5-7</td><td>The following details must be recorded in relation to each bypass release:
a) the start time, date, and duration of the release;
b) the estimated volume of the bypass release;
c) the level of treatment at the sewage treatment plant prior to discharge;
d) the cause of the release; and
e) any monitoring of the water quality released.</td></tr>
<tr><td>WT5-8</td><td>A receiving environment monitoring program must be designed and implemented by appropriately qualified persons to monitor the effects of the activity on the receiving environment as specified in Part 5, Table 3 – Receiving environment.
Part 5, Table 3 – Receiving environment<table><tr><th>ERA Site</th><th>Receiving environment for that ERA Site</th></tr><tr><td>Thorneside WWTP</td><td>(i) Tingalpa Creek; and
(ii) Moreton Bay</td></tr></table></td></tr>
<tr><td>WT5-9</td><td>The receiving environment monitoring program required by condition WT5-8, must:
i) submit a proposal for the Receiving Environment Monitoring Program to the administering authority for its review and comment:
a. in the case of the suitable registered operator not becoming a “participating member” as defined in condition WT5-10, 90 days from the date this environmental authority takes effect; or
b. in the case of the suitable registered operator ceasing to be a “participating member” as defined in condition WT5-10, 60 days from the date the suitable registered operator ceases to be a “participating member”; and
ii) ensure the proposed program describes and addresses at least the following:
a. description of potentially affected environment including key communities and ambient water quality;
b. description of water quality objectives and biological objectives to be achieved;
c. description of selected physico-chemical and biological indicators and reasons for their inclusion;
d. the proposed monitoring locations including control locations and reasons for their selection;
e. the proposed sampling depths;
f. the frequency of sampling and analysis;
g. any historical data sets to be relied upon; and
h. description of the statistical basis on which conclusions are drawn; and
iii) have due regard to the comments of the administering authority in the finalisation of the Receiving Environment Monitoring Program.</td></tr>
<tr><td>WT5-10</td><td>As an alternative to developing and implementing a Receiving Environment Monitoring Program for Moreton Bay and other specified receiving waters, the suitable registered operator may become and remain a "participating member" in a study carried out by other persons or agencies that meets the requirements of conditions WT5-8 to WT5-9 inclusive (the equivalent study), for example, the Brisbane River and Moreton Bay Wastewater Management Study or the Logan Coomera South Moreton Bay Regional Wastewater Management Study or the South East Queensland Water Quality Monitoring Program.</td></tr>
<tr><td>WT5-11</td><td>The suitable registered operator will be deemed to comply with conditions WT5-8 to WT5-9, in so far as they relate to Moreton Bay and other specified receiving waters, so long as the suitable registered operator continues to be a "participating member" in an equivalent study. In the event that the suitable registered operator ceases to be a "participating member" in an equivalent study, then the suitable registered operator must within sixty (60) days submit a proposal for a receiving Environment Monitoring Program in accordance with condition WT5-9.</td></tr>
</table>

WT5-12	If the suitable registered operator ceases to be to be a participating member in an equivalent study, then the suitable registered operator must within fourteen (14) days notify the **administering authority** in writing that they are no longer a "participating member".

<table>
<tr><th colspan="2">Agency interest: Noise</th></tr>
<tr><th>Condition number</th><th>Condition</th></tr>
<tr><td>N5-1</td><td>Noise from the activity must not exceed the levels identified in Part 5, Table 4 – Noise limits and the associated requirements at the premises to which this Environmental Authority relates.
Part 5, Table 4 – Noise limits
<table>
<tr><th>Noise Level at a Noise Sensitive Place Measured as the Adjusted Maximum Sound Pressure Level $L_{Amax\ adj,\ T}$</th><th>Period</th></tr>
<tr><td>Background noise level plus 5 dB(A)</td><td>7 am - 6 pm</td></tr>
<tr><td>Background noise level plus 5 dB(A)</td><td>6 pm - 10 pm</td></tr>
<tr><td>Background noise level plus 3 dB(A)</td><td>10 pm - 7 am</td></tr>
<tr><th>Noise Level at a Commercial Place Measured as the Adjusted Maximum Sound Pressure Level $L_{Amax\ adj,\ T}$</th><th>Period</th></tr>
<tr><td>Background noise level plus 10 dB(A)</td><td>7 am – 6 pm</td></tr>
<tr><td>Background noise level plus 10 dB(A)</td><td>6 pm – 10 pm</td></tr>
<tr><td>Background noise level plus 8 dB(A)</td><td>10 pm – 7 am</td></tr>
</table></td></tr>
</table>

Part 6 – Site specific conditions

Environmentally relevant activity	Location	
63-(1e) Sewage treatment >10000 to 50000EP	CAPALABA Smith Street	Lot 2 on SP231112

In addition to Part 1 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: Water

Condition number	Condition
WT6-1	The only contaminants to be released to surface **waters**, excluding bypass releases covered by the water conditions WT6-5 and WT6-7, from the sewage treatment plant to **waters** described as Tingalpa Creek at release point W1 in accordance with *Part 6, Table 1 – Surface water release limits* and the associated requirements. Release Point W1 Sewage wastes from the treatment plant via an outfall pipe to **waters** described as Tingalpa Creek at 9.9km AMTD.

Part 6, Table 1 – Surface water release limits

Quality Characteristics	Release Limit	Limit Type
5-day Biochemical Oxygen Demand (inhibited)	10 mg/L	**Long term** 80th percentile compliance
5-day Biochemical Oxygen Demand (inhibited)	15 mg/L	**Short term 80th** percentile compliance
5-day Biochemical Oxygen Demand (inhibited)	30 mg/L	**Maximum**
Suspended Solids	15 mg/L	**Long term** 80 percentile compliance
Suspended Solids	23 mg/L	**Short term** 80 percentile compliance
Suspended Solids	45 mg/L	Maximum
pH (pH range)	6.5 to 8.5	**Range**
Dissolved Oxygen	2.0 mg/L	**Minimum**
Total Nitrogen (as Nitrogen)	5.0 mg/L	**Long term** 50 percentile compliance
Total Nitrogen (as Nitrogen)	7.5 mg/L	short term 50 percentile compliance
Total Nitrogen (as Nitrogen)	15.0 mg/L	Maximum
Total Phosphorus (as Phosphorus)	2.0 mg/L	**Long term** 50 percentile compliance
Total Phosphorus (as Phosphorus)	3.0 mg/L	short term 50 percentile compliance
Total Phosphorus (as Phosphorus)	6.0 mg/L	Maximum
Free Chlorine Residual	0.7 mg/L	Maximum
Faecal Coliforms	1000 organisms per 100 mL as a **median** value (**minimum** of 5 samples taken at not less than half-hourly intervals in any one day, with 4 out of the 5 samples containing less than 4000 organisms per 100 mL)	

WT6-2 Monitoring of contaminant releases to **waters** must be undertaken in accordance with *Part 6, Table 2 – Monitoring frequency* and the associated monitoring requirements and records of the results must be kept.

Part 6, Table 2 – Monitoring frequency

Quality Characteristic	Units	Frequency
5-day Biochemical Oxygen Demand	mg/L	Weekly
Suspended Solids	mg/L	Weekly
pH	pH scale	Weekly
Dissolved Oxygen	mg/L	Weekly
Faecal Coliforms	cfu/100 mL	Weekly
Total Nitrogen (as Nitrogen)	mg/L	Weekly
Ammonia (as Nitrogen)	mg/L	Weekly
Total Phosphorus (as Phosphorus)	mg/L	Weekly

WT6-3 In addition to WT6-1, the release to **waters** must not produce any slick or other visible evidence of oil or grease, nor contain visible floating oil, grease, scum, litter, or other visually objectionable matter.

WT6-4 The total quantity of contaminants released from release point W1 during any **dry weather day** must not exceed 12.75ML and in any day must not exceed 37.5ML.

WT6-5 **Bypass** releases must be screened prior to being released.

WT6-6 The **administering authority** must be notified within 24 hours of any **bypass** release ceasing.

WT6-7 The following details must be recorded in relation to each **bypass** release:

a) the start time, date and duration of the release;
b) the estimated volume of the **bypass** release;
c) the level of treatment at the sewage treatment plant prior to discharge;
d) the cause of the release; and
e) any monitoring of the water quality released.

WT6-8 A receiving environment monitoring program must be designed and implemented by **appropriately qualified persons** to monitor the effects of the **activity** on the "receiving environment" as specified in *Part 6, Table 3 – Receiving environment*.

Part 6, Table 3 – Receiving environment

ERA Site	Receiving environment for that ERA Site
Capalaba WWTP	(i) Tingalpa Creek; and (ii) Moreton Bay

WT6-9 The receiving environment monitoring program required by condition WT6-8, must:

(i) submit a proposal for the Receiving Environment Monitoring Program to the **administering authority** for its review and comment:
   a) in the case of the suitable registered operator not becoming a "participating member" as defined in condition H32-10, 90 days from the date this environmental authority takes effect; or
   b) in the case of the suitable registered operator ceasing to be a "participating member" as defined in condition H32-10, 60 days from the date the suitable registered operator ceases to be a "participating member"; and

(ii) ensure the proposed program describes and addresses at least the following;
   a) description of potentially affected environment including key communities and
   b) ambient water quality;
   c) description of water quality objectives and biological objectives to be achieved;
   d) description of selected physico-chemical and biological indicators and reasons for their inclusion;
   e) the proposed monitoring locations including control locations and reasons for their selection;

	f) the proposed sampling depths; g) the frequency of sampling and analysis; h) any historical data sets to be relied upon; and i) description of the statistical basis on which conclusions are drawn; and (iii) have due regard to the comments of the **administering authority** in the finalisation of the Receiving Environment Monitoring Program.
WT6-10	As an alternative to developing and implementing a Receiving Environment Monitoring Program for Moreton Bay and other specified receiving **waters**, the suitable registered operator may become and remain a "participating member" in a study carried out by other persons or agencies that meets the requirements of conditions WT6-8 to WT6-9 inclusive (the equivalent study), for example, the Brisbane River and Moreton Bay Wastewater Management Study or the Logan Coomera South Moreton Bay Regional Wastewater Management Study or the South East Queensland Water Quality Monitoring Program.
WT6-11	The suitable registered operator will be deemed to comply with conditions WT6-8 to WT6-9, in so far as they relate to Moreton Bay and other specified receiving **waters**, so long as the suitable registered operator continues to be a "participating member" in an equivalent study. In the event that the suitable registered operator ceases to be a "participating member" in an equivalent study, then the suitable registered operator must within sixty (60) days submit a proposal for a receiving Environment Monitoring Program in accordance with condition WT6-9.
WT6-12	If the suitable registered operator ceases to be to be a participating member in an equivalent study, then the suitable registered operator must within fourteen (14) days notify the **administering authority** in writing that they are no longer a "participating member".
Agency interest: Noise	
Condition number	**Condition**
N6-1	Noise from the **activity** must not exceed the levels identified in *Part 6, Table 4 – Noise limits* at the premises to which this Environmental Authority relates.

Part 6, Table 4 – Noise limits

Noise Level at a Noise Sensitive Place Measured as the Adjusted Maximum Sound Pressure Level $L_{Amax\ adj,\ T}$	**Period**
Background noise level plus 5 dB(A)	7 am - 6 pm
Background noise level plus 5 dB(A)	6 pm - 10 pm
Background noise level plus 3 dB(A)	10 pm - 7 am
Noise Level at a Commercial Place Measured as the Adjusted Maximum Sound Pressure Level $L_{Amax\ adj,\ T}$	**Period**
Background noise level plus 10 dB(A)	7 am - 6 pm
Background noise level plus 10 dB(A)	6 pm - 10 pm
Background noise level plus 8 dB(A)	10 pm - 7 am

Part 7 – Site specific conditions

Environmentally relevant activity	Location	
63-(1e) Sewage treatment >10000 to 50000EP	CLEVELAND Weippin Street	Lot 2 on SP234806

In addition to Part 1 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
G7-1	Activities conducted under this environmental authority must not be conducted contrary to any of the following limitations: a) Operation of a sewage treatment plant with a daily peak design capacity of 46,000 equivalent persons (EP) at 2 Weippin Street, Cleveland QLD 4163 (Lot 2 Plan SP234806 (formerly known as Lot 171 SL7400)).
G7-2	An **appropriately qualified person**(s) must monitor, interpret, and record all parameters that are required to be monitored, in the manner provided, as specified in *Part 7, Table 1 - Monitoring*.

Part 7, Table 1 – Monitoring

Parameter	Measurement (units)	Minimum Frequency	Monitoring location (Eastings and Northings)		
Land					
Treated wastewater for irrigation					
All parameters specified in Part 7, Table 4	Specified in Part 7, Table 4	Weekly	W1		
Surface Waters					
All parameters specified in Part 7, Table 2 except volume, free chlorine and total chlorine.	Specified in Part 7, Table 2	Weekly	W2		
Volume specified in Part 7, Table 2	Specified in Part 7, Table 2	Daily	W2		
Free and total chlorine specified in Part 7, Table 2	Specified in Part 7, Table 2	Weekly	W3		
Groundwater					
Specified in Part 7, Table 3	Specified in Part 7, Table 3	Quarterly for one year and then biennially	**Bore ID**	**Easting**	**Northing**
			BH01	524125	6953440
			BH02	523518	6952805
			BH03	523109	6952854
			BH04	523481	6953342
			BH05	523549	6953122
			BH06	523891	6953469
			BH07	524036	6953635

Associated Monitoring requirements

1. Only samples representative of the discharge are to be collected and analysed.
2. Monitoring for parameters other than noise must be in accordance with the **administering authority's** *Monitoring and Sampling Manual 2009* or later versions.

	3. Release point W1 is located at the outlet of the storage lagoons prior to the treated wastewater irrigation area defined in *Figure 1 - Designated irrigation areas* 4. Monitoring point W2 is located at the end of the chlorine contact tank prior to release through W3. 5. Release point W3 is located at an outfall pipe to **waters** described as Hilliard's Creek at approximately 9.8 km AMTD.
G7-3	All structures associated with the Cleveland Wastewater Treatment Plant built after this environmental authority is granted (excluding pipes servicing discharge infrastructure) must be constructed in a way that achieves Q100 flood line immunity.

Agency interest: Water

Condition number	**Condition**
WT7-1	The only contaminants to be released to surface **waters** are treated waste **waters** in accordance with *Part 7, Table 2 – Surface water release limits* and the associated requirements.

Part 7, Table 2 – Surface water release limits

Quality characteristics	**Limit type**	**Minimum**	**Maximum**	**Median**	**Long term 50th percentile**	**Short term 50th percentile**	**Sample type**
5-day Biochemical Oxygen Demand (inhibited)	mg/L	-	-	-	5	-	composite
		-	-	-	-	7.5	
		-	10	-	-		
Total Suspended Solids	mg/L	-	-	-	5	-	composite
		-	-	-	-	7.5	
		-	10	-	-	-	
pH	**range**	6.5	8.5	-	-	-	grab
Dissolved Oxygen	mg/L	2	-	-	-	-	grab
Total Nitrogen	mg/L as N	-	-	-	5	-	composite
		-	-	-	-	7.5	
		-	15	-	-	-	
Total Phosphorous	mg/L as P	-	-	-	1	-	composite
		-	-	-	-	1.5	
		-	3	-	-		
Electrical conductivity	Micro Siemens per cm	-	-	-	-	2000	grab
Faecal Coliforms	cfu/100 mL	-	-	150	-	-	grab
		-	600	-	-	-	
Enterococci To monitor only	cfu/100 mL	No limit imposed	No limit imposed	No limit imposed	No limit imposed	No limit imposed	grab
Volume	ML	-	Release on a dry weather day is 18 ML	Average dry weather flow is 6.78 ML	-	-	flow meter
		-	Release on any other day is 50.2 ML	-	-	-	
Free Chlorine	mg/L	-	0.7	0.4	-	-	grab
Total Chlorine	mg/L	-	1.0	0.7	-	-	

	Associated requirements 1. Release point W3 is located at an outfall pipe to **waters** described as Hilliard's Creek at approximately 9.8 km AMTD. 2. Monitoring point W2 is located at the end of the chlorine contact tank. 3. The above release quality limits in regards to chlorine and total chlorine were set subject to undertaking a toxicity assessment investigation (as per Conditions WT7-8, WT7-9, WT7-10, WT7-11 and WT7-12) known as the Toxicant Risk Assessment (TRA) and may be amended in the future subject to the results of the TRA
WT7-2	In addition to WT7-1, the release to **waters** must not produce any slick or other visible evidence of oil or grease, nor contain visible floating oil, grease, scum, litter, or other visually objectionable matter.
WT7-3	**Bypass** flow events must only occur for flows in excess of three times Average Dry Weather Flow (ADWF) and any **bypass** flow must be as a **minimum** treated by screening and grit removal.
WT7-4	The **bypass** flow event must flow directly to Hilliards Creek.
WT7-5	The **administering authority** must be notified within 24 hours of any **bypass** release ceasing.
WT7-6	The following details must be recorded in relation to each **bypass** release: a) the start time, date, and duration of the release; b) the estimated volume of the **bypass** release; c) the level of treatment at the sewage treatment plant prior to discharge; d) the cause of the release; and e) any monitoring of the water quality released.
WT7-7	An **appropriately qualified person**(s) must calculate, using the following method, the annual loads of **Total Nitrogen** (TN) and **Total Phosphorus** (TP) in treated wastewater released to **waters** via release point W3: (i) Annual Mass Load TN (kg) = Yearly sum of Daily Release Volume (ML) for all dry weather days / the number of dry weather days x 365 x Yearly **Median** TN Concentration (mg/L). (ii) Annual Mass Load TP (kg) = Yearly sum of Daily Release Volumed (ML) for all dry weather days / the number of dry weather days in the year x 365 x Yearly **Median** TP Concentration (mg/L). *Note: The measured concentration of the nutrient is from the composite sample taken that day or on the most recent sampling occasion if not taken that day.*
WT7-8	An **appropriately qualified person**(s) must develop and implement a "Toxicant Risk Assessment (TRA) Program" for chlorine and key disinfection by-products in treated wastewater discharged to Hilliards Creek via Release Point W3. The TRA must as a **minimum** include the following information and actions: a) Determine the current baseline Free Chlorine and Total Residual Chlorine concentrations in the treated wastewater discharge pipe and receiving environment under average-case and worst-case release conditions; b) Determine the likely future changes in Free Chlorine and Total Residual Chlorine concentrations in treated wastewater as a result of any augmentations and the related potential environmental impact ("environmental harm") on the receiving environment; c) Where increased or unacceptable risks to the receiving environment are identified, assess, and investigate alternative management or treatment options for chlorine dosing with respect to Free Chlorine and Total Residual Chlorine concentrations during treatment; and d) Recommend a preferred management strategy or treatment option(s) for chlorine dosing with associated timelines for actions identified as part of condition WT7-8(c), considering the feasibility of any implementation.
WT7-9	Develop the TRA program including the points prescribed in condition WT7-8 and submit it to the **administering authority** within 9 months of the date of granting this environmental authority and consider comments provided by the **administering authority** for the TRA program implementation.

WT7-10	Implement the TRA program prescribed in condition WT7-8 immediately after completion of condition WT7-9.
WT7-11	Identify and recommend alternative management, treatment, and associated limits of the treated wastewater to control potential impacts of chlorine on Hilliards Creek as a result of the actions undertaken in WT7-9 and WT7-10.
WT7-12	Submit a report to the **administering authority** outlining the results of condition WT7-10 and the proposed recommended alternatives for management and treatment of chlorine as required in condition WT7-11 by 1 December 2021.
WT7-13	In the event of any changes to; chemicals used on-site, the treatment design or operation, or influent quality that have the potential to influence the nature or quality of the wastewater discharged to Hilliards Creek, you must undertake a TRA that is in accordance with the most recent version of the Australian and New Zealand Guidelines for Fresh and Marine Water Quality, and considers the potential impacts on aquatic values of Hilliards Creek.
WT7-14	Where the results of a TRA described in Condition WT7-7 identifies a risk of potential adverse impact upon Hilliards Creek, the **administering authority** must be notified within 14 days of you becoming aware of the risk. Management or mitigation **measures** proposed to control or minimise any potential impacts must be provided to the **administering authority** no later than 28 days after the initial notification to the **administering authority**
WT7-15	Near-field Receiving Environment Monitoring Program (NFREMP) must be developed and implemented within six (6) months of the date of granting this environmental authority to monitor and record the effects of the release of contaminants from the Cleveland WTP on the receiving environment, with the aims of identifying and describing the extent of any adverse impacts to local environmental values, and monitoring any changes in the receiving water. *(Note a copy of the NFREMP design document must be provided to the **administering authority** prior to the programs' implementation and due consideration given to any comments made on the NFREMP by the **administering authority**.)*

WT7-16	The NFREMP design document must describe (but not necessarily be limited to) the following: a) The objective of the program including monitoring for any potential adverse environmental impacts caused by the release and assessing the condition and change of the receiving environment, particularly in terms of additional nutrient inputs into the system; b) Monitoring of selected physicochemical indicators as a **minimum** those specified in the document entitled "*Redland Water- Cleveland Wastewater Treatment Plant 2 Weippin Street Cleveland- Receiving Environment Monitoring Program (REMP) - Version One- August 2012"* (including ammonia nitrogen, oxidised nitrogen (NOx), organic nitrogen, total nitrogen, total phosphorus, filterable reactive phosphorous (FRP), pH, dissolved oxygen concentration and saturation, electrical conductivity, total suspended solids, turbidity, temperature and chlorophyll-a); c) Adequate sampling locations to quantify and qualify potential environmental impacts in each of the major reaches representing the receiving environment zone; d) Background reference sites (e.g. upstream or background) and downstream sites from the release to be monitored; e) A description of the monitoring locations including GPS co-ordinates; f) Potentially affected receiving **waters** including key environmental features and human uses (where data is available); g) Applicable environmental values, water quality objectives and default guidelines to be achieved through the *Environmental Protection Act 1994* (Act) and any applicable environmental protection policy made under the Act; h) Any historical datasets or water quality objectives/guidelines to be relied upon; i) Any relevant reports of information prepared by other governmental or professional research organisations that relate to the receiving environment within which the REMP is proposed; j) Procedures or guidelines from ANZECC and ARMCANZ 2000 and other relevant guideline documents that will be adopted; k) The frequency and timing of sampling required in order to reliably achieve the objectives of the program; l) Monitoring of biological indicators that detect the extent of influence of the discharge on the receiving environment and ensure that environmental values are protected (including nutrient processing, processed nitrogen tracking such as delta Nitrogen 15 (6N15) in mangroves and seagrass); m) Monitoring of toxicants indicators relevant to the release; n) Monitoring of flora and fauna communities (such as aquatic plants and invertebrates), where applicable; o) Stream flow and hydrological information to be used to assist in the interpretations of water quality and biological data assessment; p) A description of the statistical methodology for the analysis of data; q) A description of any spatial and temporal controls; r) Sampling and analysis methods, quality assurance and control methods and details of those collecting samples; and s) Proposed calculations and data analysis methods on which conclusions are to be drawn and the justification for these methods.
WT7-17	At twelve monthly intervals from the data of commencement Of the NFREMP, a Receiving Environment Monitoring Report (REMR) must be prepared and submitted to the **administering authority** containing the data and findings of the NFREMP for that period and since the commencement of the program.

WT7-18	The REMR must address at least the following: a) A summary of the NFREMP with reference to the most current version of the NFREMP design document, noting any deviations from the current version; b) A detailed description and analysis of the results of the NFREMP (including submission of all raw data in Microsoft Excel electronic format or as requested); c) An assessment of the impact of contaminant discharge upon the receiving environment with respect to water quality objectives and biological objectives for the "receiving environment"; d) An assessment of the level of change in ambient conditions, if any, of the "receiving environment"; e) A summary of recommendations that can be drawn from the findings of the NFREMP, with respect to the prevention or minimisation of the impacts of the contaminant releases on the "receiving environment"; and f) Any recommended changes to the NFREMP and a justification for these changes.
WT7-19	As an alternative to developing a NFREMP to achieve compliance with conditions WT7-15 and WT716, the person undertaking the **activity** to which this environmental authority relates may become and remain a "participating member" in any water quality strategies and monitoring programs relevant to the "receiving environment" (in this case Hilliards Creek) and endorsed in writing by the **administering authority**. The alternative program must however be able to deliver the same outcomes as prescribed in this environmental authority
WT7-20	A Far-field Monitoring Program (FFMP) must be implemented, to monitor the effects of the release of contaminants from the Cleveland Wastewater Treatment Plant on the receiving environment, with the aims of identifying and describing the extent of any adverse impacts to local environmental values[3].
WT7-21	The FFMP proposal must address at least the following- a) monitoring for any potential adverse environmental impacts caused by the release, particularly in terms of additional nutrient inputs into the system; b) monitoring of selected physicochemical parameters (including ammonia nitrogen, oxidised nitrogen (NOx), organic nitrogen, total nitrogen, total phosphorus, filterable reactive phosphorous (FRP), pH, dissolved oxygen concentration and saturation, electrical conductivity, total suspended solids, temperature and chlorophyll-a); c) monitoring of biological indicators that detect the extent of influence of the discharge on the far-field environment and ensure that environmental values are protected (including nutrient processing, processed nitrogen tracking such as (δ15N) in mangroves and seagrass); d) adequate sampling locations to quantify and qualify potential environmental impacts in each of the major reaches representing the far-field zone; e) a description of the monitoring locations including GPS co-ordinates; f) the proposed sampling depths; g) the frequency or scheduling of sampling and analysis; h) any historical datasets or water quality objectives/guidelines to be relied upon; i) a description of the statistical methodology for the analysis of data; and j) a description of any spatial and temporal controls.
WT7-22	The FFMP must be prepared and submitted in writing to the **administering authority** within 3 months from when this environmental authority is granted.
WT7-23	As an alternative to a FFMP to achieve compliance with conditions WT7-20 and WT7-21, the holder of this environmental authority may become and remain a "participating member" in any water quality strategies and monitoring programs relevant to the "receiving environment" and endorsed in writing by the **administering authority**. The alternative program must however be able to deliver the same outcomes as prescribed in this environmental authority.

<table>
<tr><td>WT7-24</td><td>Within six months of the date of granting this environmental authority an appropriately qualified person must develop, implement, and submit to the administering authority a Groundwater Monitoring Program (GMP). You must consider comments provided by the administering authority in relation to the GMP. The GMP must include the development and installation of a suitable groundwater monitoring network to monitor the quality of groundwater potentially impacted by any indirect release of contaminants to groundwater in the vicinity of the treated wastewater wet weather storage dam and the areas specified in Part 7, Figure 1 - Designated Irrigation Area.</td></tr>
<tr><td>WT7-25</td><td>The GMP must include but not be limited to the following:
a) borehole locations and depths;
b) security of the sampling sites;
c) qualifications and experience of the person performing all determinations of the quality of contaminants; and
d) provisions for monitoring the parameters as prescribed in Part 7, Table 3 Groundwater Monitoring Parameters.
Part 7, Table 3 – Groundwater Monitoring Parameters
<table>
<tr><th>Quality Characteristics</th><th>Unit of Measurement</th></tr>
<tr><td>pH</td><td>Range</td></tr>
<tr><td>Electrical conductivity</td><td>micro Siemens per cm</td></tr>
<tr><td>Total dissolved solids</td><td>mg/L</td></tr>
<tr><td>Major Anions (Cl, SO4, CO3, HCO3)</td><td>mg/L</td></tr>
<tr><td>Major Cations (Ca, Mg, Na, K)</td><td>mg/L</td></tr>
<tr><td>Ammonia</td><td>mg/L as Nitrogen</td></tr>
<tr><td>Nitrite + Nitrate</td><td>mg/L as Nitrogen</td></tr>
<tr><td>Total Kjeldahl Nitrogen</td><td>mg/L as Nitrogen</td></tr>
<tr><td>Total Nitrogen</td><td>mg/L as Nitrogen</td></tr>
<tr><td>Total Phosphorus</td><td>mg/L as Phosphorus</td></tr>
<tr><td>Metals</td><td rowspan="18">mg/L</td></tr>
<tr><td>Aluminium</td></tr>
<tr><td>Arsenic</td></tr>
<tr><td>Beryllium</td></tr>
<tr><td>Cadmium</td></tr>
<tr><td>Chromium VI</td></tr>
<tr><td>Cobalt</td></tr>
<tr><td>Copper</td></tr>
<tr><td>Iron</td></tr>
<tr><td>Lead</td></tr>
<tr><td>Lithium</td></tr>
<tr><td>Manganese</td></tr>
<tr><td>Mercury</td></tr>
<tr><td>Molybdenum</td></tr>
<tr><td>Nickel</td></tr>
<tr><td>Selenium</td></tr>
<tr><td>Zinc</td></tr>
</table></td></tr>
<tr><td>WT7-26</td><td>All groundwater monitoring bores in the groundwater monitoring network must be maintained in an operative condition and be reasonably accessible at all times to any authorised person.</td></tr>
</table>

WT7-27	The **groundwater** monitoring network referred to in Condition WT7-24 must: a) be installed and maintained by an **appropriately qualified person**; b) include a sufficient number of monitoring bores that are located at an appropriate distance from potential sources of impact associated with treated wastewater irrigation and wet weather storage; c) provide the following: d) representative **groundwater** samples from the aquifer(s); and e) standing water levels. *(**Note**: the location of monitoring bores must take into consideration the location any Environmentally Relevant Activities, location and depth of aquifers and hydro geological factors which may allow the movement of contaminants.)*
Agency interest: Land	
Condition number	**Condition**
L7-1	The only contaminants to be released to land are treated wastewaters in accordance with *Part 7, Table 4 – Land release limits* and the associated requirements.

Part 7, Table 4 – Land release limits

Release	Quality characteristics	Limit type	Minimum	Maximum	Long term 50th percentile	Short term 50th percentile	Long term 80th percentile	Sample type
Schedule 1 – Designated irrigation areas release point is W1	5-day Biochemical Oxygen Demand (inhibited)	mg/L	-	10	-	-	-	Grab
			-	-	5	-	-	
			-	-	-	7.5	-	
	Total Suspended Solids	mg/L	-	30	-	-	-	
			-	-	15	-	-	
			-	-	-	20	-	
	pH	**range**	6.5	9.0	-	-	8.5	
	Dissolved Oxygen	mg/L	2		-	-	-	
	Total Nitrogen	mg/L as N	-	15	-	-	-	
			-	-	5	-	-	
			-	-	-	7.5	-	
	Total Phosphorous	mg/L as P	-	3	-	-	-	
			-	-	1		-	
			-	-	-	1.5	-	
	Electrical Conductivity	Micro - siemens per cm	-	-	-	2000	-	
	Free Chlorine	mg/L	-	0.7	-	-	-	
	Total Chlorine	mg/L	-	1.0	-	-	-	

Associated requirements

1. The **appropriately qualified person** undertaking the **activity** must ensure that, excluding any buffers, the area specified in Figure 1 is a **minimum** of 38 Hectares for the rate of irrigation at the time the environmental authority to which this **activity** relates is granted.
2. Release point W1 is located at the outlet of the storage lagoons prior to the treated wastewater irrigation area defined in *Figure 1 - Designated irrigation areas*.

L7-2	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 prevented; 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; and g) sufficient buffer zones are maintained between irrigation sites and **sensitive** environmental receptors.
L7-3	When weather conditions or soil conditions preclude the release of treated sewage effluent to land, effluent must not be irrigated to land.
L7-4	Within six months of the date of granting this Environmental Authority an **appropriately qualified person** must develop, implement, and submit to the **administering authority** a Release to Land Monitoring and Management Program (RLMP). You must consider comments provided by the **administering authority** in relation to the RLMP. The RLMP must effectively monitor the condition of the land to which treated wastewater is applied and manage the sustainability of treated wastewater release to land on the site. The RLMP's scope must include but not be limited to the following issues: a) vegetation health impacts; b) soil salinity impacts, sodicity & soil structural stability and heavy metal toxicity; c) water-logging conditions, surface runoff and soil erosion; d) nutrient leaching and soil phosphorus adsorption saturation; e) changes to **groundwater** monitoring in terms of both level and quality; and f) potential improvement to the release to land practices where issues are identified.

Agency interest: Noise

Condition number	**Condition**
N7-1	Noise from the **activity** must not exceed the levels identified in *Part 7, Table 5 – Noise limits* and the associated requirements at the premises to which this Environmental Authority relates.

Part 7, Table 5 – Noise limits

Noise level measured in db(A)	**Monday to Saturday**				**Sunday and Public Holidays**			
	6am-7am	**7am-6pm**	**6pm-10pm**	**10pm-6am**	**6am-7am**	**7am-6pm**	**6pm-10pm**	**10pm-6am**
	Noise measured at the boundary of the approved place							
$L_{10\ adj\text{-}T}$	49	49	49	46	49	49	49	46
$L_{eq\ adj\text{-}T}$	44	44	44	41	44	44	44	41

Associated requirements

1) The compliance noise level must be measured as the component noise level, as near as practicable to the location and height where a straight line from the sound source to the affected dwelling intersects the boundary of the approved place. If this is not practically possible, a noise should be measured at the affected dwelling and modelled to determine compliance at the boundary. If a noise reducing device is constructed on the point of measurement, then the effect of this device will be taken into account.

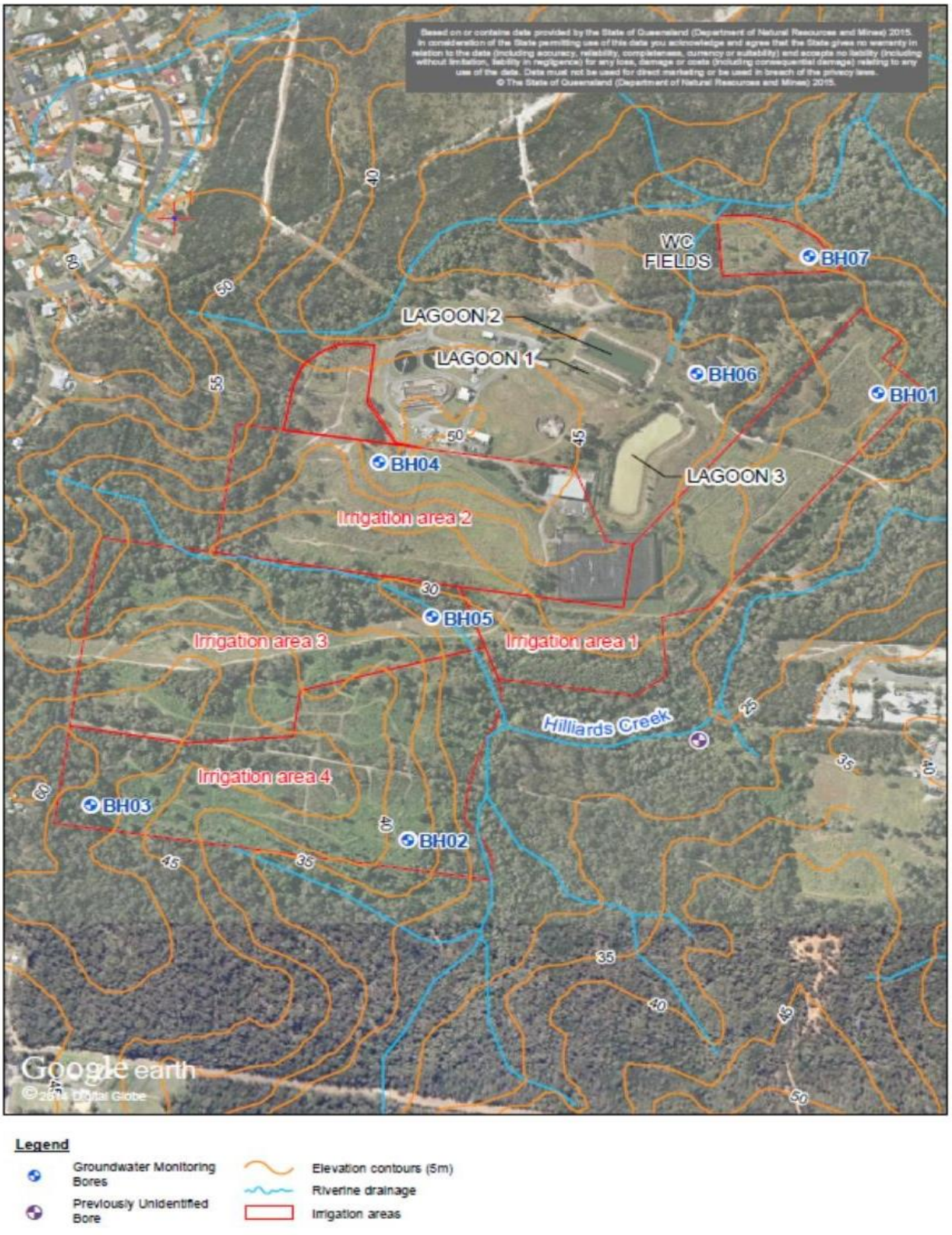
2) The measurement duration, T, must be determined by a suitably experienced or qualified person, so as to adequately represent and validate the data.

*Note: The **minimum** value for T must be:*

a) 15 minutes for continuous noises

b) 1 hour for intermittent noises.

Part 7, Figure 1 – Designated Irrigation Areas



Part 8 – Site specific conditions

Environmentally relevant activity	Location	
63-(1d) Sewage treatment >4000 to 10000EP	POINT LOOKOUT 154, Tramican Street	Lot 131 on SP164078

In addition to Part 1 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**
G8-1	**Activities** conducted under this environmental authority must not be conducted contrary to any of the following limitations: (i) Inflows must not exceed the peak design capacity of 3 times the **Design Average Dry Weather Flow** (DADWF) of 4.788ML/day (DADWF = 1.596 ML/**day**).
G8-2	A receiving environment monitoring program must be designed and implemented by **appropriately qualified persons** to monitor the effects of the **activity** on **groundwater**.
G8-3	The receiving environment monitoring program required by condition G8-2, 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; and 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**; and 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, six monthly monitoring of the quality of **groundwater** to detect any possible release(s) of contaminants; and f) consider the potential use of **groundwater** in the vicinity.
Agency interest: Noise	
Condition number	**Condition**
N8-1	Noise generated by the **activity** must not cause **environmental nuisance** to any **sensitive place** or **commercial place.**

Agency interest: Land

Condition number	Condition
L8-1	The only contaminants to be released to land are treated wastewaters in accordance with *Part 8, Table 1 – Treated effluent release limits to infiltration lagoon* and the associated requirements.

Part 8, Table 1 - Treated effluent release limits to infiltration lagoon

Release Point Name	Quality Characteristic (units)	Minimum	Long Term Median	Short Term Median	Maximum	Minimum Monitoring Frequency
W1	**Volume (ML/day)**	-	-	-	4.788	Daily
	BOD5 (mg/L)	-	-	-	10	Weekly
	Total Suspended Solids (mg/L)	-	-	-	30	Weekly
	Total Nitrogen (mg/L as N)	-	3	-	9	Weekly
	Total Phosphorus (mg/L as P)	-	1	-	3	Weekly
	pH (pH units)	6.5	-	-	8.5	Weekly
	Enterococci (cfu/100ml)	-	-	40	200	Weekly
	Faecal Coliforms (cfu/100ml)	-	-	10	40	Weekly

Associated requirements

1. Monitoring must be in accordance with the **administering authority's** *Water Quality Sampling Manual* and any additional relevant guidelines if necessary and all monitoring devices must be effectively calibrated and maintained.
2. Release point W1is located at the outlet to the infiltration lagoon.
3. Indicators for TN and TP must be done as 24 hour composite samples.
4. Enterococci and faecal coliform counts are the recommended pathogen indicator for assessing potential risks to recreational water. E. coli counts may be more relevant for land irrigation where recreation is unlikely.

Definitions for Section 1

Key terms and/or phrases used in this document 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 activities, whether resource activities or prescribed activities, to which the environmental authority relates.

Administering authority means the Department of Environment and Science 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.

Bypass means when the standard treatment processes of the plant do not occur as a result of wet weather and inflows that are in excess of the peak design capacity for inflow resulting in the release of untreated or partially treated effluent from the sewage treatment plant to the environment.

BOD5 means the 5-day biochemical oxygen demand determined using standard tests (e.g. those used by **NATA** laboratories). This test if inhibited for nitrification, would be referred to as “carbonaceous” BOD.

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.

Design Average Dry Weather Flow (DADWF) means the average dry weather flow of the treatment plant at the design horizon.

Dry weather day means a day which less than 1mm of rainfall is recorded at the nearest **rainfall radar** to the boundary of the site and within the catchment area the activity is being carried out. However, if no such **rainfall radar** exists or rainfall data is unavailable, rainfall is to be recorded at a measuring station within the boundary of the site/location where the activity is being carried out.

A dry weather day excludes days during which recorded rainfall over the 4 preceding days exceeds a cumulative rainfall of 50mm.

Environmental nuisance as defined under Chapter 1 of the *Environmental Protection Act 1994.*

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

Groundwater monitoring system means a system of groundwater monitoring devices, such as monitoring bores, used to provide data in respect to the level and quality of groundwater in the uppermost aquifer where the location of the groundwater monitoring devices is such that comparisons of groundwater quality and groundwater level can be made between groundwater flowing from beneath the site (down-gradient flow) of the **activity** and groundwater flowing towards the site of the **activity** (up-gradient flow).

Long Term (limit) means a limit applied to 50 consecutive samples taken over a one year period (on a rolling basis for limit calculations) where consecutive samples are taken on a weekly basis of approximately equal periods (where the time interval is not less than six days).

Long term 80th percentile compliance means that not more than ten (10) of the measured values of the quality characteristic are to exceed the stated release limit for any fifty (50) consecutive samples where:

(i) the consecutive samples are taken over a one year period;

(ii) the consecutive samples are taken at approximately equal periods; and

(iii) the time interval between the taking of each consecutive sample is not less than six days.

Long term 50th percentile compliance means that the median value of the measured values in ranked order of the quality characteristic is not to exceed the stated release limit for any fifty (50) consecutive samples where:

(i) the consecutive samples are taken over a one year period;

(ii) the consecutive samples are taken at approximately equal periods; and

(iii) the time interval between the taking of each consecutive sample is not less than six days.

Maximum means that the measured value of the quality characteristic or contaminant must not be greater than the release limit stated

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.

Minimum means that the measured value of the quality characteristics or contaminant must not be less than the release limit stated

NATA means National Association of Testing Authorities.

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

Rainfall radar means a rainfall measuring station recognised by the Commonwealth Bureau of Meteorology.

Range means that the measured value of the quantity characteristic or contaminant must not be greater than the higher limit stated nor less than the lower release limit stated

Release of a contaminant into the environment means to: deposit, discharge, emit or disturb the contaminant cause or allow the contaminant to be deposited, discharged, emitted or disturbed fail to prevent the contaminant from being deposited, discharged emitted or disturbed allow the contaminant to escape fail to prevent the contaminant from escaping.

Sensitive place includes the following and includes a place within the curtilage of such a place reasonably used by persons at that place: a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or a motel, hotel or hostel; or a kindergarten, school, university or other educational institution; or a medical centre or hospital; or a protected area under the *Nature Conservation Act 1992*, the *Marine Parks Act 2004* or a World Heritage Area; or a public thoroughfare, park or gardens; or for noise, a place defined as a sensitive receptor for the purposes of the Environmental Protection (Noise) Policy 2019.

Short term 80th percentile compliance means that not more than one (1) of the measured values of the quality characteristic are to exceed the stated release limit for any five (5) consecutive samples where:

(i) the consecutive samples are taken over a five week period;

(ii) the consecutive samples are taken at approximately equal periods; and

(iii) the time interval between the taking of each consecutive sample is not less than six days.

Short term 50th percentile compliance means that the median value of the measured values in ranked order of the quality characteristic is not to exceed the stated release limit for any five (5) consecutive samples where:

(i) the consecutive samples are taken over a five week period;

(ii) the consecutive samples are taken at approximately equal periods; and

(iii) the time interval between the taking of each consecutive sample is not less than six days.

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 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.

You means the holder of the environmental authority.

Section 2 – Sewage Pumping Stations

Relevant activity: 63-(2) Sewage treatment – Operating a sewage pumping station (1)(b)

Sewage Pumping Station Sites:

SCHEDULE 1 - TABLE 1 - PUMP STATION AND OVERFLOW

OVERFLOW	LOCATION	REAL PROPERTY ADDRESS	DISCHARGE TO
Pump Station 21	Corner Crown Road and William Street ALEXANDRA HILLS	Lot 140 on SP318848	Natural drainage line which flows to Tarradarrapin Creek Wetlands
Pump Station 24	164-182 Old Cleveland Road (near Coolnwynpin Creek) CAPALABA	Lot 157 on SL9394	Coolnwynpin Creek
Pump Station 25	126 Old Cleveland Road/Banfield Lane (traffic lights) CAPALABA	Lot 5 on SP235921	Tingalpa Creek
Pump Station 47	Barber Drive Park Frost Street CAPALABA	Lot 902 on RP807249	Minor unnamed waterway which flows to Coolnwynpin Creek
Pump Station 62	31 Killarney Crescent (near Erin Street) CAPALABA	Lot 250 on RP153880	Killarney Crescent Park which flows to Tingalpa Creek
Pump Station 134	Hardwood Drive MOUNT COTTON	Lot 600 on RP884622	Land (site parking area) but can redirected to emergency storage
Pump Station 16	4A Whitehall Avenue cul-de-sac BIRKDALE	Lot 3 on RP174082	Stormwater drain which flows Tingalpa Creek corridor to Tingalpa Creek
Pump Station 28	1-29 St Andrews Avenue BIRKDALE	Lot 42 on RP132611	Birkdale Fodder Forest which flows to unnamed minor waterway
Pump Station 29	Eva Street THORNESIDE	Lot 97 on RP14138	Open stormwater drain which flows to Tingalpa Creek
Pump Station 33	226 Birkdale Road (near Tarradarrapin Creek) BIRKDALE	Lot 3 on RP173517	Open stormwater drain which flows to canals which flows to Moreton Bay
Pump Station 34	Reserve near 56 Thomas Street BIRKDALE	Lot 104 on RP14114	Open stormwater drain which flows to Waterloo Bay
Pump Station 35	Reserve 347 Birkdale Road BIRKDALE	Lot 2 on RP14192	Sovereign **Waters** Lake which flows to Waterloo Bay
Pump Station 36	Main Road (opposite Jellicoe Street) WELLINGTON POINT	Road reserve intersection of Main Road and Jellicoe Street (299 MAIN RD)	Vacant land via stormwater open drain which flows to Moreton Bay
Pump Station 41	38 Fernhourne Road (near Valley Road) WELLINGTON POINT	Lot 1 on RP222445	Hilliards Creek
Pump Station 42	51 Hilliard Street ORMISTON	Lot 7 on RP181610	Hilliards Creek
Pump Station 48	Victor Street (off Railway Parade) BIRKDALE	Road reserve opposite 32 Victor Street Birkdale	Ashwood Circuit Creek
Pump Station 49	Simon Street VICTORIA POINT	Lot 2 on RP173495	Moreton Bay
Pump Station 54	Pelican Street VICTORIA POINT	Road reserve opposite 4 Pelican Street Victoria Point	Moreton Bay

OVERFLOW	LOCATION	REAL PROPERTY ADDRESS	DISCHARGE TO
Pump Station 61	Orana Street and School Road VICTORIA POINT	Lot 1 on RP173540	Freshwater wetland (near Orana Street)
Pump Station 67	Reserve off Holly Road (on Moogurrapum Creek) VICTORIA POINT	Road Reserve off Fir Street, behind 66 Fir street, Victoria Point	Moogurrapum Creek
Pump Station 68	Cleveland-Redland Bay Road (near Boundary Road) THORNLANDS	Road Reserve intersection of Cleveland-Redland Bay Road and Boundary Road Thornlands	Eprapah creek corridor which flows into Eprapah Creek
Pump Station 90	Reserve at Weinam / Banana Streets REDLAND BAY	Lot 167 on CP884275	Moogurrapum Creek
Pump Station 92	7 Donald Road REDLAND BAY	Lot 2 on RP220122	Unnamed minor waterway which flows into Orchard Beach Wetland
Pump Station 112	Talburpin Park (off Phillip Street) POINT TALBURPIN	Lot 53 on RP117618	Junee Street Wetlands which flows to Moreton Bay
Pump Station 132	16 Moores Road REDLAND BAY	Lot 200 on RP883835	Orchard Beach Wetland which flows into Weinam Creek
Pump Station 154	Victoria Parade (southern side near barge ramp) Coochiemudlo	Road reserve opposite 60 TAGERUBA STREET Coochiemudlo Island (Lot 6 RP92550	Conservation foreshore which flows to Moreton Bay
Pump Station 70	87-99 East Coast Road (end of 5 Roseby Court) POINT LOOKOUT	Lot 9 on SP277800	Coral Sea (near Cylinder Beach)
Pump Station 71	2 George Nothling Drive (CNR East Coast Road) POINT LOOKOUT	Road reserve intersection of East Coast Road and George Nothling Drive Point Lookout	Coral Sea (near Cylinder Beach)
Pump Station 103	Adjacent to Cylinder Beach Caravan Park (near Post Office) POINT LOOKOUT	Lot 48 on SP306495	Coral Sea (near Cylinder Beach)
Pump Station 104	23 Bimba Street (OPP 50 Samarinda Way) POINT LOOKOUT	adjacent to Lot 1 on SP233206	Coral Sea (near Frenchmans Beach)
Pump Station 4	Opposite 179 Middle Street CLEVELAND	Lot 4 on CP863368	Ross Creek
Pump Station 5	40 Haggup Street (near Middle St) CLEVELAND	Lot 19 on SP168495	Black Swamp Wetlands
Pump Station 6	Showgrounds CLEVELAND	Lot 1 on SP 236501	Ross Creek
Pump Station 11	65 Redland Bay Road (OPP Thornlands Road) THORNLANDS	Lot 1 Plan RP168192	Unnamed minor waterway
Pump Station 12	Opposite 30 Beach Street (near Holden St) CLEVELAND	Lot 1 Plan RP895239	Holden Street Wetlands which flows to Moreton Bay
Pump Station 19	Fitzroy Street (near Russell St) CLEVELAND	Road reserve intersection of Ostend Court and Fitzroy Street, Cleveland.	Ross Creek
Pump Station 74	14 Masthead Drive (Raby Bay) CLEVELAND	Road reserve intersection of	Endeavour Canal (Raby Bay)

OVERFLOW	LOCATION	REAL PROPERTY ADDRESS	DISCHARGE TO
		Anchorage Drive and Masthead Drive, Cleveland.	
Pump Station 82	143 Fitzroy Street (near Bay St) CLEVELAND	Lot 1 Plan CP857140	Unnamed natural drainage line which flows into Moreton Bay
Pump Station 86	Western side of Hilliards Creek (near Enterprise St) CLEVELAND	Lot 7 on SP234806	Hilliards Creek
Pump Station 100	45 Albicore Drive (near Redland Bay Road) THORNLANDS	Lot 2 Plan RP209639	Unnamed natural drainage line
Pump Station 136	23 Weippin Street CLEVELAND	Lot 100 Plan SP106226	Conservation Area or Natural drainage line which flows to Hilliards Creek
Pump Station 139	31 Manning Esplanade THORNLANDS	Lot 802 Plan SP137446	Bushland refuge which could flow to an unnamed minor waterway which flows into Moreton Bay
Pump Station 141	165 South Street CLEVELAND	Lot 120 Plan SP117636	Overflows to Pump Station 6
Pump Station 145	1 Tindappah Drive THORNLANDS	Lot 901 Plan SP159679	Conservation foreshore which flows into Moreton Bay
Pump Station 165	44-50 Waterline Boulevard THORNLANDS	Lot 903 Plan SP277255	Artificial basin and swale in Neighbourhood Recreation Par which flows to Moreton Bay
Pump Station 166	100 - 102 Kinross Road THORNLANDS	Lot 2 Plan RP126925	Hilliard's Creek
Pump Station 168	275-375A Serpentine Creek Rd, REDLAND BAY QLD 4165	Lot 7000 Plan SP324835	Bioretention basin which flows into an unnamed tributary to Serpentine Creek.

Conditions of environmental authority

With the exception of any variations, the conditions of approval for the environmentally relevant activity conducted at the locations as described above must be conducted in accordance with the standard conditions within the attached document entitled

Code of environmental compliance for certain aspects of sewage treatment activities (ERA63) Version 1 (EM732).

Variations to the standard conditions replace conditions 4, 5, 6, 7, 10, 11 and 14 with variations V1 to V4 below. The varied conditions are:

Agency Interest: General	
Condition Number	**Condition**
V1	The **activity** must be undertaken in accordance with written procedures that: a) identify potential risks to the environment from the **activity** during routine operations and emergencies; and b) establish and maintain control **measures** that minimise the potential for environmental harm; and

	c) ensure plant, equipment and measures are maintained in a proper and effective condition; and d) ensure plant, equipment and **measures** are operated in a proper and effective manner; and e) ensure that staff are trained and aware of their obligations under the *Environmental Protection Act 1994*; and f) ensure that reviews of environmental performance are undertaken at least annually.
V2	The operator must ensure that **contaminants** are not released to **land** or **waters** (including the bed and banks of any **waters**) as a result of the activity. The only exception to this condition is that a sewage release to **land** or **waters** (including the bed and banks of any **waters**) may occur as a result of the activity only when all of the following apply: a) the release is as a result of a wet weather event; and b) all reasonable and practicable measures have been taken to prevent the release.
V3	The **operator** must notify the **administering authority** via the 24-hour Pollution Hotline or the district office as soon as practicable but within 24 hours after becoming aware of a sewage release that: a) poses a threat to public health (for example, contamination of **waters** with primary recreation values); b) results in any observable environmental impact (for example, fish kill, distress to wildlife, marine plants, or other aquatic life); c) discharges to, or is likely to impact, a sensitive environment (for example, Ramsar wetland, marine park, or area designated as a conservation zone under a relevant planning scheme); or d) is 10 000 L or more during dry weather.
V4	An annual monitoring report must be prepared and submitted to the **administering authority** by 30 November each year, for the preceding financial year.

Definitions for Section 2 – Sewage Pumping Stations

Key terms and/or phrases used in this document 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 activities, whether resource activities or prescribed activities, to which the environmental authority relates.

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

Contaminant(s) as defined in Section 11 of the *Environmental Protection Act 1994*.

Land means land excluding **waters** and the atmosphere. Land includes land on the authorised place.

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

Operation means the development approved under this approval.

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.

ATTACHMENT

- ***Code of environmental compliance for certain aspects of sewage treatment activities (ERA63) Version 1*** **(EM732).**

END OF PERMT

Code of environmental compliance

ERA 63(3)—Sewage treatment

This code of environmental compliance (code) has been made under Schedule 3 of the Environmental Protection Regulation 2008. It contains the standard environmental conditions approved by the Minister, under section 549(2) of the Environmental Protection Act 1994*, for carrying out the aspects of the environmentally relevant activity (ERA) specified in Section 3 of this code.*

Code of environmental compliance for certain aspects* of sewage treatment activities

(ERA 63)

Version 1

* This code only applies to the aspects of the ERA that meet the criteria in Section 3 of this code.

ABN 46 640 294 485

Queensland Government

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1. Introduction

The Department of Environment and Heritage Protection (EHP) has simplified the environmental compliance framework for environmentally relevant activities (ERAs) where environmental outcomes can be achieved by developing codes of environmental compliance (codes) that set out standard environmental conditions. The use of codes expedites environmental approval processes whilst still ensuring that there are appropriate standards of environmental management and protection.

Codes are appropriate for those activities that can achieve a good level of environmental protection through established, well understood practices. The standard environmental conditions are based on these practices and require the registered operator to take the necessary measures to prevent or minimise environmental harm.

Key terms and/or phrases used in this code are bolded and defined at the end of this code. Where a term is not defined in this code, the definition in the *Environmental Protection Act 1994* (EP Act), its regulations or Environmental Protection Policies must be used. If a word remains undefined it has its ordinary meaning.

2. Authorisation of the code

The Minister responsible for the EP Act, pursuant to section 549, approved the standard environmental conditions contained in this code on 4 July 2012. Approved codes are listed in Schedule 3 of the Environmental Protection Regulation 2008 (EP Reg).

3. Scope of the code

This code applies only to certain aspects of ERA 63 — Sewage treatment activities.

The aspects of ERA 63 — Sewage treatment activities, that this code applies to is threshold 3 which is outlined below (for the full definition see Schedule 2 of the EP Reg).

ERA 63	**Sewage treatment activities**
Threshold 3	Operating a sewage pumping station with a total design capacity of more than 40kL in an hour, if the operation of the pumping station is not an essential part of the operation of a sewage treatment works to which ERA 63(1) or ERA 63(2) applies.

The operation of the ERA under this code must comply with all of the criteria set out in the following table at all times:

Criteria
Operating a sewage pumping station with a total design capacity of more than 40kL in an hour.

Where the operation of a particular ERA will not meet the above criteria, this code does not apply and a development approval is required to undertake the ERA.

4. When the code takes effect

This code applies immediately to registered operators who commenced activities on or after 9 November 2012.

Registered operators who were carrying out ERA 63(3) under a development approval issued before 9 November 2012, and who continue to carry out the activity have a 12 month transitional period in which to ensure their operations comply with the code. The code becomes effective for those registered operators on 9 November 2013.

5. Enforcement of the code

This code contains standard environmental conditions for carrying out the activities that meet the criteria set out in Section 3 of this code. Failure to comply with the criteria or conditions of the code is an offence and penalties apply. A development approval is required where an ERA 63(3) activity is not self-assessable under this code—It is an offence to undertake an activity without a development approval and penalties apply. Enforcement Guidelines published by the administering authority are available at www.ehp.qld.gov.au.

6. Other requirements

In addition to the conditions in this code, the registered operator carrying out ERA 63(3) must comply with all other relevant Commonwealth, State or local government legislative requirements. Without limiting the requirements that may apply, some additional obligations under the EP Act include:

- holding a **registration certificate** issued by the **administering authority** under section 73F; and
- taking all reasonable and practicable measures to prevent or minimise environmental harm. This is referred to as the 'general environmental duty'.

7. Amendment of this code

This code may be amended from time to time by gazette notice advising that the Minister has approved new conditions. Proposed changes to the standard environmental conditions, other than changes to correct a clerical error, will be made in consultation with stakeholders. Where there is a significant change to the code, the administering authority will notify registered operators affected by the change.

8. Further information or enquiries

Further information is available at www.ehp.qld.gov.au or by contacting the relevant regional office of the administering authority.

General enquiries or suggestions for future amendments to the code should be directed to Permit and Licence Management, Implementation Support Unit on telephone 13 QGOV (13 74 68) or by email at palm@ehp.qld.gov.au.

9. Standard environmental conditions

Standard environmental condition	Advice
Condition 1 – Flooding The **operator** must ensure that **new pumping stations** are constructed to ensure that essential operational components of the pumping station are not impacted in a way which results in a failure of these components by flooding below the **one in 100 year flood level**. The **operator** must, when considering **major upgrades** of **existing pumping stations**, undertake a review of the construction of the essential operational components of the pumping station that may fail as a result of flooding below the **one in 100 year flood level**. The **operator** must consider moving these components above the **one in 100 year flood level**.	When constructing **new pumping stations** in a flood prone area, the switch gear should be located above the **one in 100 year flood level**, as identified at the time of the construction. When upgrading **existing pumping stations** in a flood prone area, the **operator** should consider relocating any switch gear that is below the **one in 100 year flood level**, as identified at the time of the upgrade. Any upgrades should be included within the sewage overflow abatement plan as required by condition 7 of this **approval**.
Condition 2 – Flooding The **operator** must ensure that **new pumping stations** are constructed so that storm and flood waters can not enter the pump well. The **operator** must, when considering **major upgrades** of **existing pumping stations**, undertake a review of the construction and consider improvements to reduce the potential for storm and flood waters to enter the pump well.	When constructing **new pumping stations** openings to the well (such as maintenance holes) should not be lower than the **one in 100 year flood level**, as identified at the time of the construction. When upgrading **existing pumping stations** in a flood prone area, the **operator** should consider upgrades to restrict water from entering the well if located below the **one in 100 year flood level**, as identified at the time of the upgrade. Any upgrades should be included within the sewage overflow abatement plan as required by condition 7 of this **approval**.
Condition 3 – Maintenance of measures, plant and equipment The **operator** must: (a) maintain all measures, plant and equipment in an effective condition and keep records of the maintenance (b) operate such measures, plant and equipment in an effective manner.	

Standard environmental condition	Advice
Condition 4 – Integrated environmental management system For **new pumping stations** the **operator** must document and comply with an integrated environmental management system (IEMS) prior to the commencement of this **activity**. For **existing pumping stations** the **operator** must document and comply with an IEMS within 12 months of the date this **approval** takes effect. The IEMS must identify all causes of **environmental harm** including, but not limited to, the actual and potential release of any contaminants, the nature of the **environmental harm** and the actions that will be taken to prevent **environmental harm** being caused. The IEMS must achieve the following outcomes: (a) environmental aspects and potential impacts are identified (b) a contingency plan and emergency response plan are in place (c) a network plan of the sewage collection system including connected pumping stations and likely overflow points is maintained (d) control measures that minimise the potential for **environmental harm** are in place (e) organisational structures, accountability and responsibilities are recorded (f) effective, practical communication arrangements, including documentation of such (g) all contaminant releases, and an estimate of their impact on the receiving environment are recorded (h) staff are trained and aware of the requirements of this **approval**.	The IEMS is a commitment to complying with the **approval**. It is generally for the benefit of the **operator** in helping them to clarify and comply with the **approval** requirements. The IEMS may not necessarily be site specific. It should provide guiding principles to help plan ways to manage risks and minimise any potential **environmental harm**. For example, by identifying: • what contaminants could be released • where any contaminants released would go and their impact • that actions could be taken to contain any release • what precautions could be taken to prevent a release. This information can then be used to include procedures for prioritising responses to overflow events based on the risk to the receiving environment and the extent of the release. An IEMS may be used for a sewage network. However, any IEMS used for a network must be updated to reflect a new **activity** to which this **approval** applies. An IEMS may also be used to demonstrate compliance with the general environmental duty for other pumping stations which are not licensed but may still have the potential to cause **environmental harm**.

Standard environmental condition	Advice
Condition 5 – Contingency plan For **new pumping stations** the **operator** must document and comply with a contingency plan prior to the commencement of this **activity**. For **existing pumping stations** the **operator** must document and comply with a contingency plan within 24 months of the date this **approval** takes effect. The contingency plan must provide for: (a) standard connections for emergency by-pass pumping (b) standard connections for mobile generators, or a back-up power source that automatically starts in the event of power failure (c) stand-by pumping equipment and associated controls (d) identification of critical components and a system to ensure adequate and timely access to spare parts (e) access for maintenance and emergency activities (f) testing and validation of any relevant equipment used or related to the contingency plan as necessary.	The detail of the contingency plan should reflect the complexity and risk of the **activity** at the site specific location. Where an IEMS has been developed for a sewage network there may be a contingency plan applicable to many pumping stations within the network based on the level of risk posed by the pumping stations. In this instance the one contingency plan can be used but must be updated to reflect the addition of the new **activity** to which this **approval** applies. While this condition requires the contingency plan to include provision for certain requirements, these are not intended to be restrictive. Where these requirements can be met in an alternative way or might not be relevant to a site specific **activity** this should be clearly documented. If you are proposing alternative arrangements you should consult the **administering authority**.

Standard environmental condition	Advice
Condition 6 – Emergency response plan For **new pumping stations** the **operator** must document and comply with an emergency response plan prior to the commencement of this **activity**. For **existing pumping stations** the **operator** must document and comply with an emergency response plan within 24 months of the date this **approval** takes effect. The emergency response plan must provide for: (a) an implementation manual (b) staff training (c) identification of the part of the environment to which a sewage release may occur (for example, for water bodies, a description of where contaminants may enter the particular water body) (d) remediation and clean up of areas affected by sewage releases (e) receiving environment (surface waters/land) monitoring program for all notifiable releases to examine and assess environmental impacts (f) ongoing investigation and review to establish the cause of sewage releases, initiate corrective and/or preventative measures, and report on the effectiveness of such corrective and/or preventative measures.	The detail of the emergency response plan should reflect the complexity and risk of the **activity** at the site specific location. Where an IEMS has been developed for a sewage network there may be an emergency response plan applicable to many pumping stations within the network based on the level of risk posed by the pumping stations. In this instance the one emergency response plan can be used but must be updated to reflect the addition of the new **activity** to which this **approval** applies. While this condition requires the emergency response to include provision for certain requirements, these are not intended to be restrictive. Where these requirements can be met in an alternative way or might not be relevant to a site specific **activity** this should be clearly documented. If you are proposing alternative arrangements you should consult the **administering authority**. A receiving environment monitoring program must be sufficient to demonstrate the extent of the contamination and the time taken for the receiving environment to return to normal. For a release to waters, upstream and downstream monitoring may be required.
Condition 7 – Sewage overflow abatement plan For **new pumping stations** the **operator** must document and comply with a sewage overflow abatement plan within 12 months of the date this **approval** takes effect. For **existing pumping stations** the **operator** must document and comply with a sewage overflow abatement plan within 24 months of the date this **approval** takes effect. The sewage overflow abatement plan must consider the existing performance and trends, and the potential receiving environment of the pumping station. It must: (a) identify where the greatest risks of causing **environmental harm** are (b) identify and evaluate measures in place to reduce the incidence of overflows (c) develop a program of works with a timetable for implementation (d) assess performance and trends for any implemented works.	The detail of the sewage overflow abatement plan should reflect the complexity and risk of the **activity** at the site specific location. Where an IEMS has been developed for a sewage network there may be a sewage overflow abatement plan applicable to many pumping stations within the network based on the level of risk posed by the pumping stations. In this instance the one sewage overflow abatement plan can be used but must be updated to reflect the addition of the new **activity** to which this **approval** applies. Where flooding issues have been identified (as outlined in conditions 1 and 2), upgrades must be included within the sewage overflow abatement plan.

Standard environmental condition	Advice
Condition 8 – Records The **operator** must record, compile and keep all maintenance and monitoring results, plans and documents required by this **approval** and present this information to an **authorised person** or the **administering authority** when requested.	Records should verify the provision of training programs and schedules of routine inspections.
Condition 9 – Records All records required by this **approval** must be kept for five years.	
Condition 10 – Release to land and waters The **operator** must ensure that contaminants are not released to land or waters (including the bed and banks of any waters) as a result of the **activity**.	The **administering authority** acknowledges that a typical design for sewerage system capacity is three to five times average daily dry weather flow and that overflows may occur in wet weather when the design capacity of the sewerage system is exceeded.
Condition 11 – Notifiable release The **operator** must notify the **administering authority** via the 24 hour Pollution Hotline or the district office no later than three hours after becoming aware of a sewage release that: (a) poses a threat to public health (for example, contamination of **waters** with primary recreation values); (b) results in any observable environmental impact (for example, fish kill, distress to wildlife, marine plants or other aquatic life); (c) discharges to, or is likely to impact, a sensitive environment (for example, Ramsar wetland, marine park, or area designated as a conservation zone under a relevant planning scheme); or (d) is 10 000 L or more during dry weather.	The **administering authority** may need to respond quickly to some spills with the potential to cause **environmental harm**. Priority should be given to notifying the **administering authority** of these spills immediately after they occur. The 24 hour Pollution Hotline number is 1300 130 372. Where an event has occurred that causes or threatens serious or material **environmental harm** the duty to notify **environmental harm** requirements as per ss. 320-320G of the EP Act will also apply. Where reporting under ss. 320-320G is provided and satisfies the notification conditions of this **approval**, it is not necessary to report again against this **approval**. The **administering authority**'s district office is the office responsible for the local government area where the release has occurred. Where the volume of the release is unknown an estimate is to be provided.

Standard environmental condition	Advice
Condition 12 – Notifiable release Within 24 hours after becoming aware of a notifiable release in accordance with condition 11, email or written notification of the release must be submitted to the **administering authority** outlining the event, its nature and the circumstances in which it happened.	Where there has been a threat to public health this notification should include evidence that owners or occupiers of the affected land have been notified. This can be by public notification.
Condition 13 – Notifiable release A final report must be provided to the **administering authority** within 14 business days of the conclusion of the spill response and remediation of a notifiable release, but no later than 20 business days after the commencement of the release.	Any additional information such as sampling results maybe added to the report in the form of attachments at any time. If the commencement of the release is unknown, an estimation of the time and date of the commencement of the release is to be provided.
Condition 14 – General release reporting All releases must be reported to the **administering authority** in the form of an annual report by 30 September covering the period 1 July – 30 June of the previous year.	All discharges include notifiable releases and all other releases from the pumping station. These should be clearly identified in the report. Where the **activity** is part of a sewage network, annual reporting for the network may be provided to satisfy this condition.
Condition 15 – General release reporting Annual reports outlining all releases in accordance with condition 14 must clearly identify: (a) the waste water treatment plant which the pumping station is connected to (b) the number of releases (c) the volume (or estimate of the volume) of each release (d) the location of each release by suburb post code (e) if the release was reported under ss. 320-320G of the *Environmental Protection Act 1994*.	Reporting should be provided in a way in which the data is easy to handle and review. It would be beneficial to also include the reason for the release when reporting. An example would be in an excel spreadsheet.
Condition 16 – Monitoring The **operator** must ensure that all monitoring, assessments and reports required by this **approval** are conducted by a person with appropriate experience and/or qualifications. Water monitoring must be undertaken in accordance with the **administering authority's** Water Quality Sampling Manual and other relevant standards.	

Standard environmental condition	Advice
Condition 17 – Trained/experienced operator(s) The **operator** must ensure that the daily **operation** and maintenance of the pumping station is carried out by a person with experience and/or qualifications appropriate to ensuring the effective operation of the pumping station.	
Condition 18 – Equipment calibration The **operator** must ensure that all instruments, equipment and measuring devices used for measuring or monitoring in accordance with any condition of this **approval** are calibrated, operated and maintained in accordance with the manufacturer's specifications.	
Condition 19 – Complaint response The **operator** must record the following details for all complaints received and this information must be provided to an **authorised person** or the **administering authority** on request: (a) time, date, name and contact details of the complainant (b) reasons for the complaint (c) any investigation undertaken (d) conclusions formed (e) any actions taken.	If the complainant does not wish to have their name and contact details recorded, note this as an anonymous complaint.
Condition 20 – Air nuisance The **operator** must ensure that the release of odours or airborne contaminants resulting from the **activity** do not cause **environmental nuisance** at a nuisance **sensitive place** or **commercial place**.	
Condition 21 – Noise nuisance The **operator** must ensure that noise resulting from the **activity** does not cause **environmental nuisance** at a nuisance **sensitive place** or **commercial place**.	

Standard environmental condition	Advice
Condition 22 – Noise monitoring When requested by the **administering authority**, the **operator** must undertake noise monitoring to investigate any complaint of noise nuisance. The monitoring must be undertaken and results must be notified to the **administering authority** in the format and within the time specified by the **administering authority**. Monitoring must include: (a) measurement of $L_{A90, adj, 15 mins}$ (b) measurement of $L_{A10, adj, 10 mins}$ (c) measurement of $L_{Aeq, adj, 10 mins}$ (d) the level and frequency of occurrence of impulsive or tonal noise (e) atmospheric conditions including wind speed and direction (f) effects due to extraneous factors such as traffic noise (g) the location, date and time of monitoring.	
Condition 23 – Noise monitoring The **operator** must ensure that the method of measurement and reporting of noise levels complies with the latest edition of the **administering authority**'s Noise Measurement Manual.	The **administering authority**'s Noise Measurement Manual is available at www.ehp.qld.gov.au.
Condition 24 – Responding to potential releases The **operator** must ensure that there are appropriate physical systems in place to anticipate a potential release.	This may include an alarm system using one or more of the following; pump-failure alarms or level alarms for sewage contained in the pump well.
Condition 25 – Responding to potential releases Any system developed in line with condition 24 must be able to operate for a sufficient time to allow for notification of the potential release to the **operator** and an appropriate response.	This may include having back up power available or providing additional detention capacity.
Condition 26 – Responding to potential releases Any identification of a potential release must be responded to by the **operator**.	Response times should consider the potential for **environmental harm** based on site specific details and the potential volume of release from the pumping station.

10. Definitions

Words and phrases used throughout this guideline are defined below. Where a definition for a term used in this guideline is sought and the term is not defined the administering authority may be contacted to provide clarification.

One in 100 year flood level means the level reached by a flood event with an annual recurrence interval of one in 100 years.

Activity means ERA 63 (3).

Administering authority means the Department of Environment and Heritage Protection, or the department responsible for administering the *Environmental Protection Act 1994.*

Authorised person means a person authorised under the *Environmental Protection Act 1994*.

Approval means this code of environmental compliance.

Commercial place means a place used as an office or for business or commercial purposes.

Environmental harm (as defined in Section 14 of the *Environmental Protection Act 1994*) is any adverse effect, or potential adverse effect (whether temporary or permanent and of whatever magnitude, duration or frequency) on an environmental value, and includes **environmental nuisance**. **Environmental harm** may be caused by an activity:

a) whether the harm is a direct or indirect result of the activity

b) whether the harm results from the activity alone or from the combined effects of the activity and other activities or factors.

Environmental nuisance (as defined in Section 15 of the *Environmental Protection Act 1994*) means— 'unreasonable interference or likely interference with an environmental value' caused by:

a) aerosols, fumes, light, noise, odour, particles or smoke

b) an unhealthy, offensive or unsightly condition because of contamination

c) another way prescribed by regulation.

Existing pumping stations means pumping stations that were constructed before 1 January 2009.

$L_{A\ 90,\ adj,\ 15\ mins}$ means the A-weighted sound pressure level, (adjusted for tonal character and impulsiveness of the sound) exceeded for 90 per cent of any 15 minute measurement period, using fast response.

$L_{A\ 10,\ adj,\ 10\ mins}$ means the A-weighted sound pressure level, (adjusted for tonal character and impulsiveness of the sound) exceeded for 10 per cent of any 10 minute measurement period, using fast response.

$L_{A\ eq}$ means the equivalent continuous A-weighted sound pressure level of the residual noise determined over a specified time interval.

Major upgrades means upgrades which will involve expenditure in excess of $150 000. This figure is relevant as of 1 January 2012 and will increase by three per cent as of 1 January hereafter.

New pumping stations means pumping stations that were constructed on or after 1 January 2009.

Operation means the development approved under this **approval.**

Operator means any of the following:

a) a person having the benefit of this **approval**

b) the holder of a registration certificate for this **approval**

c) anyone undertaking the **activity** to which this **approval** relates

Note: it is an offence to carry out work under an **approval** without a relevant registration certificate.

Sensitive place means:

a) a dwelling (including residential allotment, mobile home or caravan park, residential marina or other residential premises, motel, hotel or hostel

b) a library, childcare centre, kindergarten, school, university or other educational institution

c) a medical centre, surgery or hospital

d) a protected area

e) a public park or garden that is open to the public (whether or not on payment of money) for use other than for sport or organised entertainment.

Waters means all Queensland waters and includes rivers, streams, lakes, lagoons, ponds, swamps, wetlands, surface waters, bed and bank of any waters, dams, non-tidal or tidal waters (including the sea), any ground water and any part thereof.