Permit

Environmental Protection Act 1994

Environmental authority EA0002910

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

Environmental authority number: EA0002910

Environmental authority takes effect on the date issued**.** The payment of the annual fee will be due each year on this day.

Environmental authority holder(s)

Name(s)	Registered address
Hinchinbrook Shire Council	25 Lannercost Street INGHAM QLD 4850

Environmentally relevant activity and location details

Environmentally relevant activity/activities	Location(s)
ERA 63 - Sewage Treatment 1: Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of (a-i) 21 to 100EP if treated effluent is discharged from the works to an infiltration trench or through an irrigation scheme	Wattle Street, Forrest Beach. Lot 383 Plan CWL3014

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-on the day the authority is issued.

However, if the EA is authorising an activity that requires an additional authorisation (a relevant tenure for a resource activity, a development permit under the *Planning Act 2016* or an SDA Approval under the *State Development and Public Works Organisation Act 1971*), this EA will not take effect until the additional authorisation has taken effect.

If this EA takes effect when the additional authorisation takes effect, you must provide the administering authority written notice within 5 business days of receiving notification of the related additional authorisation taking effect.

If you have incorrectly claimed that an additional authorisation is not required, carrying out the ERA without the additional authorisation is not legal and could result in your prosecution for providing false or misleading information or operating without a valid environmental authority.

E Clarke

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

Date issued: 02 July 2021

Enquiries:
Utilitied Government Assessment
Department of Environment and Science

Phone: 1300 130 372
Email: palm@des.qld.gov.au

Obligations under the *Environmental Protection Act 1994*

In addition to the requirements found in the conditions of this environmental authority, the holder must also meet their obligations under the EP Act, and the regulations made under the EP Act. For example, the holder must comply with the following provisions of the Act:

1) general environmental duty (section 319)
2) duty to notify environmental harm (section 320-320G)
3) offence of causing serious or material environmental harm (sections 437-439)
4) offence of causing environmental nuisance (section 440)
5) offence of depositing prescribed water contaminants in waters and related matters (section 440ZG)
6) offence to place contaminant where environmental harm or nuisance may be caused (section 443)

Other permits required

This permit only provides an approval under the *Environmental Protection Act 1994*. In order to lawfully operate you may also require permits / approvals from your local government authority, other business units within the department and other State Government agencies prior to commencing any activity at the site.

Development Approval

This permit is not a development approval under the *Planning Act 2016*. The conditions of this environmental authority are separate, and in addition to, any conditions that may be on the development approval. If a copy of this environmental authority is attached to a development approval, it is for information only, and may not be current. Please contact the Department of Environment and Science to ensure that you have the most current version of the environmental authority relating to this site.

Conditions of environmental authority

Environmentally relevant activity	Location/s
ERA 63 - Sewage Treatment 1: Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of (a-i) 21 to 100EP if treated effluent is discharged from the works to an infiltration trench or through an irrigation scheme	Wattle Street, Forrest Beach. Lot 383 Plan CWL3014

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

Agency interest: General	
Condition number	**Condition**
G1	**Activities** conducted under this environmental authority must be conducted in accordance with the following: (a) Inflows must not exceed 14500L on any day.
G2	All reasonable and practicable **measures** must be taken to prevent or minimise environmental harm caused by the **activities**.
G3	Any breach of a condition of this environmental authority must be reported to the **administering authority** as soon as practicable within 24 hours of becoming aware of the breach. Records must be kept including full details of the breach and any subsequent actions taken.
G4	Other than as permitted by this environmental authority, the **release of a contaminant into the environment** must not occur.
G5	All information and records required by the conditions of this environmental authority must be kept for a minimum of five years with the exception of environmental monitoring results which must be kept until surrender of this environmental authority. All information and records required by the conditions of this environmental authority must be provided to the **administering authority** upon request and in the format requested.
G6	An **appropriately qualified person(s)** must monitor, record and interpret all parameters that are required to be monitored by this environmental authority and in the manner specified by this environmental authority.
G7	All analyses required under this environmental authority must be carried out by a laboratory that has National Association of Testing Authorities (**NATA**) certification, or an equivalent certification, for such analyses. The only exception to this condition is for in situ monitoring of pH and electrical conductivity.

G8	**You** must record the following details for all environmental complaints received: 1. date and time complaint was received; and 2. name and contact details of the complainant when provided and authorised by the complainant; and 3. nature of the complaint; and 4. investigations undertaken; and 5. conclusions formed; and 6. actions taken.
G9	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; and 2. establish and maintain control **measures** that minimise the potential for environmental harm; and 3. ensure plant, equipment and **measures** are maintained in a proper and effective condition; and 4. ensure plant, equipment and **measures** are operated in a proper and effective manner; and 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.
G10	A **receiving environment monitoring program** must be designed and implemented by an appropriately qualified person(s) to monitor the effects of the activity on **groundwater**.
G11	The **receiving environment monitoring program** required by condition G10, must include at least the following: 1. be able to determine the impacts of the licensed **activity** on the **groundwater** quality in the underlying aquifer; and 2. include, but not be limited to, a sufficient number of bores installed at locations and depths which yield representative **groundwater** samples from at least the upper-most aquifer so as to: a) establish the quality of **groundwater** that has not been affected by seepage or drainage of contaminants to **groundwater** from the **activity**; and b) detect any seepage of contaminants to **groundwater** from the licensed place; and 3. include monitoring of background **groundwater** quality, hydraulically up-gradient of any release of contaminants to **groundwater**; and 4. include monitoring of downstream **groundwater** quality, hydraulically down gradient of all storage ponds, sewage treatment plant and irrigation areas; and 5. include, but not limited to, six monthly monitoring of the quality of **groundwater** to detect any possible release(s) of contaminants; and 6. consider the potential use of **groundwater** in the vicinity.

G12	A **groundwater** monitoring report must be prepared by an **appropriately qualified person(s)** and submitted to the **administering authority** with the annual monitoring report as required under condition G16
G13	The **groundwater** monitoring report required by condition G12 must include: 1. a summary of the monitoring data for the preceding financial year obtained in accordance with G11; and 2. an evaluation of the data from any monitoring programs, including graphical representations showing trends against all historical data; and 3. determine whether any seepage of contaminants has occurred.
G14	The **groundwater** monitoring report required by condition G12 must include recommendations of appropriate action(s) to mitigate any adverse impacts caused, or likely to be caused, by the **activity**.
G15	The recommendations required under condition G14 in the **groundwater** monitoring report must be undertaken: 1. as soon as practicable, and no more than 14 **days** after receiving the **groundwater** monitoring report; or 2. another period with written agreement with the **administering authority**.
G16	An annual monitoring report must be prepared and submitted to the **administering authority** by 30 November each year, for the preceding financial year.
G17	When required by the **administering authority**, monitoring must be undertaken in the manner prescribed by the **administering authority** to investigate a complaint of **environmental nuisance** arising from the **activity**. The monitoring results must be provided within 10 business days to the **administering authority** upon its request.
Agency interest: Air	
Condition number	**Condition**
A1	Other than as permitted within this environmental authority, odours or airborne contaminants must not cause **environmental nuisance** at a **sensitive place** or **commercial place**.
Agency interest: Water	
Condition number	**Condition**
WT1	Contaminants must not be released to **waters**.
Agency interest: Noise	
Condition number	**Condition**

N1	Other than as permitted within this environmental authority, noise generated by the activity must not cause **environmental nuisance** to any **sensitive place** or **commercial place**.

Agency interest: Land

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

Table 1 - Treated effluent release limits to irrigation area

Discharge location	Quality Characteristic (units)	Minimum	Long Term Median	Maximum
Sewage treatment plant outflow	Volume (L/day)	-	5200	14500
	BOD5 (mg/L)	-	10	15
	Total Suspended Solids (mg/L)	-	20	30
	Total Nitrogen (mg/L as N)	-	22	30
	Total Phosphorus (mg/L as P)	-	8	15
	pH (pH units)	6.5	-	8.5
	E.coli (CFU/100ml)	-	10	100
	Electrical Conductivity (µS/cm)	-	-	1600
	Total Chlorine (mg/L)	-	-	1.5
Mound base	**Total Nitrogen** (mg/L as N)	-	3	-
	Total Phosphorus (mg/L as P)	-	1	-

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Associated requirements

1. The minimum application area of 1205 square metres consists of a Wisconsin Mound system having a combined basal area of at least 805 square metres with a nutrient uptake belt of at least 400 square metres as detailed in ***Appendix 1 – Wisconsin Mound Layout***.
2. Releases of treated sewage effluent must only occur sub-surface within the Wisconsin Mound system.

L2

Treated effluent released to land under condition L1 must be monitored in accordance with *Table 2 – Monitoring of treated effluent release to effluent disposal area(s)* and must comply with the associated requirements.

Table 2 - Monitoring of treated effluent release to effluent disposal area(s)

Monitoring Point	Quality Characteristic / (units)	Minimum monitoring frequency
Sewage treatment plant outflow	Volume (L/ha/day)	Daily
	BOD_5 (mg/L)	Quarterly
	Total Suspended Solids (mg/L)	Quarterly
	Total Nitrogen (mg/L as N)	Quarterly
	Total Phosphorus (mg/L as P)	Quarterly
	pH (pH units)	Quarterly
	E. coli (CFU/100ml)	Quarterly
	Electrical Conductivity (µS/cm)	Quarterly
	Total Chlorine (mg/L)	Quarterly
Mound base	**Total Nitrogen** (mg/L as N)	Monthly

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		Total Phosphorus (mg/L as P)	Monthly

Associated requirements

1. Monitoring must be in accordance with the most recent edition of the **administering authority**'s Monitoring and Sampling Manual.
2. Monitoring must be undertaken when treated effluent is being disposed, unless land disposal has ceased for longer than the relevant parameters specified minimum frequency (e.g. if TSS was only required to be monitored once a week, then a TSS sample would not be required after the first week following cessation of the release).
3. Volume of release must be calculated based on the total effluent disposal area(s) when irrigating the maximum volume - or worked out for the area of application, based on the actual volume disposed of to land.
4. Indicators for TN and TP are recommended to be done as grab samples.

L3	Treated effluent must be released to land in a way that ensure: 1. drainage to **groundwater** and subsurface flows of contaminants to surface waters are minimised; and 2. surface pondage and run-off of effluent are prevented; and 3. treated effluent does not migrate beyond the boundary of the **authorised place**; and 4. degradation of soil structure is minimised; and 5. soil sodicity and the build-up of nutrients and heavy metals in the soil and subsoil are minimised; and 6. the nutrient uptake belt is maintained with an appropriate crop in a viable state for transpiration and nutrient uptake; and 7. sufficient buffer zones are maintained between the application and sensitive environmental receptors. 8. the treated effluent must be distributed evenly within the land application area; and 9. biomass removed from plants growing on the nutrient uptake belt and revegetation area must be removed from the site for disposal.
L4	When weather conditions or soil conditions preclude the release of treated sewage effluent to land, effluent must not be irrigated to land.

Agency interest: Waste	
Condition number	**Condition**
W1	All waste generated in carrying out the **activity** must be lawfully reused, recycled or removed to a facility that can lawfully accept the waste.

W2	Waste tracking records required under the *Waste Reduction and Recycling Act 2011* must be maintained and made available to the **administering authority** upon request.

Definitions

Note that where a term is not defined, the definition in the *Environmental Protection Act 1994*, its regulations or environmental protection policies must be used. If a word remains undefined it has its ordinary meaning.

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

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

Appropriately qualified person(s) means a person or persons who has professional qualifications, training, skills and experience relevant to the EA requirements and can give authoritative assessment, advice and analysis in relation to the EA requirements using the relevant protocols, standards, methods or literature.

Authorised place means Lot 340 CWL2296 and Lot 383 CWL3014.

BOD5 means the 5 day biochemical oxygen demand determined using standard tests (e.g. those used by **NATA** laboratories). This test is not inhibited for nitrification, otherwise would be referred to as "carbonaceous" BOD.

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.

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.

Long Term (limit) means a limit applied to consecutive samples taken over a one-year period on a rolling basis for limit calculations where consecutive samples are taken at the minimum frequency specified in *Table 1 – Treated effluent release limits to irrigation area.*

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

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

NATA means National Association of Testing Authorities.

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

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

Release of a contaminant into the environment means to:

1. deposit, discharge, emit or disturb the contaminant
2. cause or allow the contaminant to be deposited, discharged, emitted or disturbed
3. fail to prevent the contaminant from being deposited, discharged emitted or disturbed
4. allow the contaminant to escape
5. 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:

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

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.

Appendix 1: - Wisconsin Mound Layout



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End of Environmental Authority