

STAT1317

Notice

Environmental Protection Act 1994

Environmental Evaluation

Notice to conduct or commission an environmental evaluation

This notice to conduct or commission an environmental evaluation is issued by the administering authority pursuant to section 326B of the Environmental Protection Act 1994.

Aquarium Avenue Pty Ltd
Unit 3, 38 Wambool Street
BULIMBA QLD 4171

Your reference:

Our reference: CA50774, COMP01252

(Refer CR 84410)

24 October 2018

Take notice: that under the *Environmental Protection Act 1994* (the Act) a notice to conduct or commission an environmental investigation is issued to Aquarium Avenue Pty Ltd ACN 097 471 666 (you) by the administering authority. The administering authority is the Chief Executive of the Department of Environment and Science (the department).

The notice to conduct or commission an environmental investigation is issued with respect of the activities of Aquarium Avenue Pty Ltd ACN 097 471 666 at the Greenacres Caravan Park on land described as Lot 3 on RP123875 at 508-520 Mr Cotton Road, Capalaba QLD 4157 (the premises).

A. Grounds

The department can under section 326B of the *Environmental Protection Act 1994* (the Act) require an environmental investigation if it is satisfied on reasonable grounds that:

1. An activity or proposed activity is causing, or is likely to cause environmental harm.

The facts and circumstances forming the basis for these grounds are:

1. You operate the Greenacres Caravan Park and operate a sewage treatment plant under an environmental authority EPPR00754013 (also known as IPDE01001008 and SR0077) which authorises Environmentally Relevant Activity (ERA) 63 Sewage Treatment 1(b) (ii) >100>1500EP- (no discharge to an infiltration trench or irrigation scheme) at the premises.
2. As part of carrying out this activity you are releasing treated effluent to a stormwater inlet at the premises. The treated effluent moves along the stormwater drain and releases to a tributary of the Coolnwynpin Creek.
3. The waters are then discharged to Tingalpa Creek and then into Moreton Bay.

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4. The tributary is ephemeral, only flowing after periods of rainfall. This indicates that there is little to no dilution of the treated effluent occurring in the receiving waterway during dry periods.
5. On 1 January 2018 you provided flow meter records for the period between 1 January 2018 and 8 July 2018 which show an average of 32,571 litres of treated effluent is discharged from the premises per day.
6. Based on your monthly monitoring records of the treated effluent since November 2016, the average Total Nitrogen in the treated effluent is 23.76 mg/L and for Total Phosphorous is 6.38 mg/L.
7. On 5 July 2018, authorised officers of the department collected water samples which returned the following results:
 - a. The stormwater outlet releasing into the tributary of Coolnwynpin Creek contained 13mg/L of Total Nitrogen and 6.2mg/L of Ammonia; and
 - b. 120m downstream in the tributary of Coolnwynpin Creek contained 15mg/L of Total Nitrogen and 13mg/L of Ammonia.
8. Environmental Harm is defined in section 14 of the Act as *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.*
9. Environmental value is defined in section 9 of the Act as *(a) a quality or physical characteristic of the environment that is conducive to ecological health or public amenity or safety; or (b) another quality of the environment identified and declared to be an environmental value under an environmental protection policy or regulation.*
10. The relevant Water Quality Objectives (WQOs) specified under the *Environmental Protection (Water) Policy* for the lowland freshwaters of Redland Creeks (including Coolnwynpin Creek) for Ammonia is <0.02 mg/L and for Total Nitrogen is 0.5mg/L. (Refer to "Redland Creeks environmental values and water quality objectives – Basin No. 145 (part), including Coolnwynpin, Erapah, Hilliards, Lota, Moogurrapum, Tarradarrapin, Tingalpa and Wynnum creeks." July 2010.)
11. "The Australian and New Zealand Guidelines for Fresh and Marine Water Quality (Australian and New Zealand Environment and Conservation Council – ANZECC, 2000) (the ANZECC guidelines) lists ammonia as a toxicant in freshwater and suggest a trigger value of 0.9mg/L ammonia for 95% species protection (relevant for a slightly to moderately disturbed system).
12. The instream water quality in the tributary of Coolnwynpin Creek is above WQOs and 6 to 13 times the toxicant trigger value for ammonia under the ANZECC guidelines.
13. The department considers that the discharge of treated effluent from your premises has the potential to cause environmental harm to the receiving waters due to the release of high levels of nutrients.
14. You are in non-compliance with your EA release limits for faecal coliforms in treated effluent (which is 1,000 organisms per 100 mL as a median value of a minimum of five samples and four out of five samples containing less than 4,000 organisms per 100 mL) as follows:
 - a. May 2018: 4 out of 5 samples at >6000 cfu/100ml with one sample at 280 cfu/100ml;
 - b. Early June 2018: Median value at 1200 cfu/100ml;
 - c. Late June 2018: 4 out of 5 samples at >6000 cfu/100ml with one sample at 5900 cfu/100ml; and
 - d. July 2018: 4 out of 5 samples at >6000 cfu/100ml with one sample at 4000 cfu/100ml.

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15. The department considers that because people can access the receiving waterway, the high level of faecal coliforms being released from the premises has the potential to cause environmental harm as it is likely to adversely effect recreational use of the area. An indicator organism shows the possible presence of disease-causing microorganisms (pathogens) and there is a potential risk of infection upon contact.
16. Section 4(5) of the Act explains that effective environmental strategies will be developed and that this is achieved by developing environmental policies. In particular, the *Environmental Protection (Water) Policy 2009* (Water EPP) details the management hierarchy for surface or ground water in section 13:

13 Management hierarchy for surface or ground water

- (1) *This section states the management hierarchy for an activity that may affect water.*
- (2) *To the extent it is reasonable to do so, release of waste water or contaminants to waters must be dealt with using the following hierarchy of preferred procedures—*
- (a) *step 1—evaluate water conservation measures to reduce the use of water and the production of waste water or contaminants;*
 - (b) *step 2—evaluate waste prevention options and implement appropriate waste prevention measures;*
 - (c) *step 3—if waste prevention does not, or is not likely to, eliminate the release of waste water or contaminants to waters, evaluate treatment and recycling options and implement appropriate treatment and recycling;*
 - (d) *step 4—if treatment and recycling does not, or is not likely to, eliminate the release of waste water or contaminants to waters, evaluate the following options for waste water or contaminants, in the order in which they are listed—*
 - (i) *appropriate treatment and release to a waste facility or sewer;*
 - (ii) *appropriate treatment and release to land;*
 - (iii) *appropriate treatment and release to surface waters or ground waters.*
- (3) *In this section—*
- appropriate treatment**, of waste water or contaminants, means—
- (a) *for release to a sewerage service provider's waste facility or sewer—treatment that meets the service provider's requirements for the release to the waste facility or sewer; or*
 - (b) *for release to land—treatment that ensures the release to land is ecologically sustainable; or*
 - (c) *for release to surface waters or ground waters—treatment that ensures the release will not affect the environmental values for the waters.*
- waste facility** means a facility for the recycling, reprocessing, treatment, storage, incineration, conversion to energy or disposal of waste.

17. As detailed above, the Water EPP water sets out a preferred management hierarchy, which is as follows:
- a. Water conservation measures to minimise the generation of waste water; then
 - b. Appropriate treatment of waste water and release to a waste facility or sewer; then
 - c. Appropriate treatment of waste water and release to land; and then
 - d. Appropriate treatment of waste water and release to surface waters or ground waters (as the least desirable option).

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18. As detailed above, the Water EPP defines appropriate treatment for releases to waters to protect receiving waters which is of a higher standard of treatment than for releases to sewage or releases to land.
19. The department considers that waters and the recreational use of those waters are environmental values that should be protected from treated effluent with high levels of nutrients and faecal coliforms.
20. The department is satisfied that the sample results detailed above demonstrate that the sewage treatment activity conducted at the premises, is causing or is likely to cause environmental harm and that it is appropriate to require you to conduct or commission an environmental investigation about the activity and submit a report about the investigation to the department.

B. Requirements

The report on the environmental investigation must address the following relevant matters:

1. By **Friday 14 December 2018** you must review the current performance of the sewage treatment plant and:
 - a. Provide specific recommendations about the measures required to meet the treated effluent release limits for faecal coliforms whilst ensuring all other release limits for quality characteristics also continue to be met; and
 - b. Implement these measures.
2. Conduct an investigation into the following options for the release of waste water from the sewage treatment plant at the premises and evaluate each option against section 13 of the EPP Water.
 - a. A release of waste water to sewer;
 - b. If the release of waste water to sewer is not viable, the appropriate treatment required for the release of waste water to land;
 - c. If only a portion of the waste water generated is able to be released to land, the appropriate treatment required for the release of the remaining waste water to waters.
3. The investigation and evaluation required for requirement 2.a. must outline:
 - a. Any approvals required from Redland City Council including all associated application requirements;
 - b. Actual costs associated with the sewer connection and any other relevant approvals;
 - c. Any other relevant requirements for the waste water to be released to sewer such as a level of treatment of the waste water required by Redland City Council if applicable;
 - d. Details of any advice received Redland City Council about the development application requirements, application process and likelihood of obtaining the approval; and
 - e. A detailed summary of how you are going to obtain any relevant approvals, meet costs (including any financing) or any other requirements.
4. The investigation and evaluation required for requirement 2.b. must model the sustainable irrigation of waste water from the sewage treatment plant at the premises to Lot 5 on RP123875 using daily time step modelling (preferably MEDLI version 2) and using climate data for the local area to simulate the material mass balance for wastewater and nutrients. The modelling must use appropriate inputs based on:

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- a. Actual waste water quality and quantity produced by the sewage treatment plant at the premises;
 - b. Any wet weather storage to be provided;
 - c. The irrigation strategy, management and methods to be used; and
 - d. The available land area, soil characteristics in the irrigation area and crop type (grass or trees etc).
5. The investigation and evaluation required for requirement 2.b. must also consider:
- a. Any available information on groundwater and groundwater use in the local area; and
 - b. The management of irrigation to prevent impacts on neighbouring landholders.
6. The investigation and evaluation required for requirement 2.c must outline:
- a. Augmentation of the sewage treatment plant to achieve improved nutrient removal for periodic releases to waters;
 - b. The amount of rainfall required within a specific duration to achieve and maintain adequate dilution of the treated effluent being released to the receiving waterway so that the risk of environmental harm to the receiving waterway is minimised;
 - c. The volume of storage required to capture and hold treated effluent prior to implement the release during times when the receiving waterway can support the release; and
 - d. A water balance model demonstrating the sustainability of the effluent release strategy.
7. Depending on the volume and frequency of waste water proposed to be discharged to waters and the level of dilution able to be achieved, the investigation and evaluation required for requirement 2.c must also include a risk based assessment in accordance with the "Technical guideline; Licensing; Wastewater release to Queensland water" (Document number ESR/2015/1654 Version 2.01, Effective 12 Sep 2016) available at <https://www.ehp.qld.gov.au/assets/documents/regulation/pr-gl-wastewater-to-waters.pdf>. The risk based assessment must determine:
- a. The waste water quality to be achieved by the sewage treatment plant at the premises in order to protect the relevant Environmental Values and Water Quality Objectives stated in "Redland Creeks environmental values and water quality objectives – Basin No. 145 (part), including Coolnwynpin, Eprapah, Hilliards, Lota, Moogurrapum, Tarradarrapin, Tingalpa and Wynnum creeks." July 2010, as referenced by the EPP Water; and
 - b. Any release management measures which must be utilised to protect the relevant Environmental Values and Water Quality Objectives.
8. The environmental investigation and report must be carried out by an **appropriately qualified person**. You must provide details of the appropriately qualified person(s) who will be undertaking the investigation to the department on or before **Friday 9 November 2018**.
9. The environmental report must be submitted to the department on or before **Friday 26 April 2019**.

Appropriately qualified person is a person (or persons) who has demonstrated professional qualifications, training, skills or experience relevant to the requirements of the environmental investigation, who can give authoritative assessment, advice and analysis to performance relative to the subject matter using the relevant protocols, standards, methods or literature.

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As the recipient of this notice, you are also required to provide a statutory declaration in the form attached, to accompany the environmental report submitted to the department.

Take notice:

- The requirements of the notice to conduct or commission an environmental investigation take effect immediately upon service of this notice;
- This notice remains in force until further notice from the department; and
- You are responsible for meeting the costs of conducting or commissioning the environmental evaluation, preparing the environmental report and providing any further information as requested by the department.

C. Reviews and appeals

The provisions regarding reviews of decisions and appeals are found in sections 519 to 539 of the Act.

A person who is dissatisfied with certain decisions of the department, may be able to apply to have the department review that original decision.

Generally, a request to have a decision reviewed must:

- be made within 10 business days of the decision being notified to the person;
- be supported by enough information to enable the department to decide the application for review; and
- be made using the application form, Application for review of original decision ([ESR/2015/1573](#)) available on the Queensland Government website at www.qld.gov.au, using the publication number (ESR/2015/1573) as a search term.

Where an application has been made for a decision to be reviewed, the applicant may also apply to the relevant court for a stay of the decision to secure the effectiveness of the review.

Once the original decision has been reviewed, a person who is dissatisfied with the review decision may be able to appeal against that decision to the relevant court within 22 business days after receiving notice of the review decision.

A person whose interests are or would be adversely affected by a decision of the department may also be able to request a statement of reasons for a decision or a statutory order review under the *Judicial Review Act 1991*.

For further information about reviews and appeals see the information sheet, Internal review and appeals ([ESR/2015/1742](#)) available on the Queensland Government website at www.qld.gov.au, using the publication number (ESR/2015/1742) as a search term.

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You may have other legal rights or obligations and should seek your own legal advice.

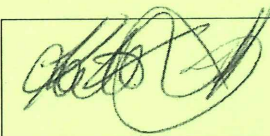
D. Penalty

Failure to comply with a notice to conduct or commission an environmental evaluation is an offence.

- The maximum penalty for an individual is 300 penalty units, totalling \$39, 165.
- The maximum penalty for a corporation is 1500 penalty units, totalling \$195, 825.

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Should you have any queries in relation to this notice, please contact Hayley McGuire of the department on telephone number 07 5526 6865.



Signature

24 October 2018

Date

Kate Harbert
Manager Compliance
Delegate of the Chief Executive
Department of Environment and Science
Environmental Protection Act 1994

Enquiries:

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