

Environmental Protection Act 1994

Environmental Protection Order

This environmental protection order is issued by the administering authority pursuant to section 358 of the Environmental Protection Act 1994.

Debbie Lee Langfield
Burrum River Caravan Park
141 Old Bruce Highway
BURRUM TOWN QLD 4659

Your reference: EPPR00660913

Our reference: C-CPLPO-100566640 / E-100566641

7/02/2024

Dear Debbie Lee Langfield

Take notice: that under the *Environmental Protection Act 1994* (the Act) this environmental protection order (EPO) is issued to Debbie Lee Langfield (you) by the administering authority. The administering authority is the Chief Executive of the Department of Environment, Science and Innovation (the department).

The EPO is issued with respect to the activity of 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 on land described as Lot 2 on SP290423 situated at 141 Old Bruce Highway, Burrum Town, 4659 (the premises).

A. Grounds

This EPO is issued on the following grounds:

1. In accordance with section 358(d)(iii) of the Act the department requires you to take reasonable measures to secure compliance with the conditions **G1, G2, L2, L4, L6, L12, WT2** and **WT3** of environmental authority (EA) EPPR00660913 dated 7 June 2019 (the EA).

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

1. You are the holder of EA EPPR00660913 (the EA) which authorises the environmentally relevant activity (ERA) 63 – Sewage Treatment, 1(a)(i): Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of 21 to 100EP – if treated effluent is discharged from the works to an infiltration trench or through an irrigation scheme.
2. The department is satisfied that you are operating the sewage treatment plant (STP) and have been responsible for the operation and maintenance of the STP at the premises under the EA since 15 November 2017.



3. **s14** of the Act states—

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

4. **s9** of the Act defines **environmental value** 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.

5. The scheduled environmental values for protection under the Environmental Protection (Water and Wetland Biodiversity) Policy 2019 for the Burrum River are published in: *Environmental Protection (Water) Policy 2009 Burrum, Gregory, Isis, Cherwell and Elliott Rivers environmental values and water quality objectives Basin No. 137 July 2010* which can be found at:

https://environment.des.qld.gov.au/data/assets/pdf_file/0021/87600/burrum-river-ev-2010.pdf

6. The site is located on the banks of the Burrum River which is mapped as high ecological value (HEV) waters at this location. For HEV waters, the management intent is to maintain or improve the natural values/condition, and water quality objectives are set accordingly to achieve this.
7. The scheduled values of groundwaters are aquatic ecosystems, irrigation, farm supply, stock water and drinking water. In addition, the management intent (level of protection) for aquatic ecosystems is for high ecological value and where ground waters interact with surface waters, groundwater quality should not compromise identified environmental values and water quality objectives for those waters.
8. On 4 October 2018 the department issued a formal warning to you for failing to undertake treated effluent monitoring and for non-compliances with treated effluent quality characteristics.
9. It is an offence to contravene a condition of an EA under section 430 of the Act.
10. **Condition G1** states *all reasonable and practicable measures must be taken to prevent the likelihood of environmental harm being caused.*
11. **Condition G2** states *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.*

12. **Condition L2** requires the only contaminant permitted to be released to **land** is treated effluent to the areas shown in Figure 1 in Appendix 1 in compliance with the limits stated in Table 1 – Contaminant Release Limits to Land and the conditions of this approval.

Table 1 – Contaminant Release Limits to Land

Quality Characteristic	Release Limit			
	Minimum	50 th Percentile	80 th Percentile	Maximum
BOD5 (mg/L)	N/A	N/S	10	15
Suspended Solids (mg/L)	N/A	N/S	10	15
E. coli (CFU per 100 mL)	N/A	N/S	<10	N/S
pH (pH units)	6.5	N/S	N/S	8.5
Turbidity* (NTU)	N/A	N/S	2	5
Total Nitrogen (mg/L)	N/A	N/S	10	15
Total Phosphorus (mg/L)	N/A	N/S	5	8
Residual chlorine (mg/L)	0.3	N/S	N/S	1.0
Total Dissolved Solids (mg/L)	N/A	N/S	800	1000

N/A = Not applicable

N/S = Not specified

*Turbidity limit is applicable at the point of treatment directly preceding disinfection.

Associated monitoring requirements

1. All determinations of the quality of contaminants released to **land** must be made in accordance with methods prescribed in the latest edition of the Water Quality Sampling Manual, and carried out on samples that are representative of the discharge.

13. **Condition L4** requires that *monitoring must be undertake and records kept of a monitoring program of contaminant releases to the irrigation area at the monitoring points, and for the parameters specified in Table 2 – Contaminant Releases to Land Monitoring Frequencies.*

Table 2 – Contaminant Release to Land Monitoring Frequencies

Monitoring point	Quality characteristics	Units	Monitoring Frequency 1	Monitoring Frequency 2
Discharge from STP to effluent irrigation area and/or wet weather storage facility	BOD5	mg/L	Monthly	Quarterly
	Suspended Solids	mg/L	Monthly	Quarterly
Discharge from STP to effluent irrigation area and/or wet weather storage facility, at a point just prior to disinfection	Turbidity	NTU	Continuous	Continuous
Discharge from STP to effluent irrigation area and/or wet weather storage facility	E. coli	CFU per 100 mL	Weekly	Quarterly
	pH	pH units	Weekly	Quarterly
	Dissolved Oxygen	mg/L	Weekly	Quarterly
	Total Nitrogen	mg/L	Monthly	Quarterly
	Total Phosphorus	mg/L	Monthly	Quarterly
	Residual chlorine	mg/L	Monthly	Quarterly
	TDS	mg/L	Monthly	Quarterly

Continuous = provision for monitoring of effluent turbidity using an inline turbidity meter such that monitoring and recording of effluent turbidity is continuous.

Monitoring Frequency 1 = Monitoring frequency to be implemented for 3 months following:

1. The commissioning of the Sewage Treatment Plant that is the subject of this Development Approval; or
2. An analysis result that reveals the effluent quality is not complying with any of the applicable limits stated in Table 2.

Monitoring Frequency 2 = Monitoring frequency to be implemented following demonstrated compliance with quality characteristics for Monitoring Frequency 1, at the completion of Monitoring Frequency 1.

14. **Condition L6** states that a minimum area of 5,538m² of **land**, excluding any necessary buffer zones, must be utilised for the irrigation of treated effluent.
15. **Condition L12** states a buffer zone of at least 4m shall be maintained between the designated effluent disposal area and residential and caravan sites.

16. **Condition WT2** requires a **groundwater** monitoring network must be installed for the effluent irrigation area that ensures any variability in the effluent irrigation area is incorporated (ie. soil types, vegetation types, altitude, aspect, etc.). The network must:
- (i) be installed and maintained by a person possessing appropriate qualifications and experience in the fields of hydrogeology and **groundwater** monitoring program design to be able to competently make recommendations about these matters; and
 - (ii) be constructed in accordance with methods prescribed in the latest editions of the Agriculture and Resource Management Council of Australian and New Zealand manual titled 'Minimum Construction Requirement for Water Bores in Australia'; and/or AS/NZS 1547:2000 "on-site domestic wastewater management", and
 - (iii) include a sufficient number of monitoring bores that provide the following:
 - representative **groundwater** samples from the uppermost aquifer; and any other potentially affected aquifers,
 - background **groundwater** quality in hydraulically up-gradient or background bore(s) that have not been affected by any release of contaminants to **groundwater**; and
 - the quality of **groundwater** within the treated sewage effluent irrigation area(s); and
 - the quality of **groundwater** down gradient of any potential sources of contamination.
17. **Condition WT3** states you must conduct monitoring and keep **records** of **groundwater** quality for the relevant monitoring bores required by condition WT2 of this approval. All determinations of **groundwater** quality must be:
- (i) conducted for the water quality characteristics and at the minimum frequency stated in **Table 3 – Groundwater Monitoring Parameters and Frequencies**;
 - (ii) taken from sufficient monitoring points and/or wells to obtain representative samples of **groundwater** both up-gradient, down-gradient of, and within, the potential influence;
 - (iii) carried out with sufficient regularity and spatial and temporal replication to make statistically valid conclusions about changes to **groundwater** levels prior to, and following proposed development of the site;
 - (iv) carried out with sufficient number of sampling events to determine **groundwater** quality characteristics, standing **groundwater** levels prior to, and following proposed development of the site.
 - (v) made in accordance with methods prescribed in the latest edition of the **administering authority's** Water Quality Sampling Manual.
 - (vi) followed by an assessment of whether or not there has been any statistically significant adverse change at locations within and hydraulically down-gradient of the potential source of contamination for each quality characteristic in **Table 3 – Groundwater Monitoring Parameters and Frequencies**, compared to background values.

Table 3 – Ground Water Monitoring Parameters and Frequencies

Quality Characteristic	Units	Monitoring Frequency 1	Monitoring Frequency 2
Nitrate Nitrogen	mg/L	Monthly	Biannually
Total Nitrogen	mg/L		
Ammonia Nitrogen	mg/L		
Nitrite Nitrogen	mg/L		
Total Phosphorus	mg/L		
pH	pH scale		
E.coli	cfu/100mL		
Electrical conductivity	µS/cm		

Monitoring Frequency 1 = Monitoring frequency to be implemented for 3 months following:

1. The commissioning of the Sewage Treatment Plant that is the subject of this approval; or
2. An analysis result that indicates an increase above background of 10% or greater in any of the parameters required to be measured in Table 3.

Monitoring Frequency 2 = Monitoring frequency to be implemented following demonstrated compliance with quality characteristics for Monitoring Frequency 1 for 3 consecutive monitoring events, at the completion of Monitoring Frequency 1.

18. On 21 August 2023, the department received a notification from everGreen Wastewater on your behalf which included treated effluent monitoring results that were non-compliant with contaminant release limits specified in **condition L2** of the EA.
19. On 15 September 2023, the department requested the previous 2 years of treated effluent and groundwater monitoring records required under **condition L2** and **condition WT3** of the EA.
20. On 18 September 2023 and 21 August 2023, you provided the department with laboratory analysis reports (the lab reports) for sampling of treated effluent conducted on 26 July 2023, 31 May 2023, 15 March 2023, 22 November 2022 and 04 July 2022.
21. The lab reports confirm that treated effluent did not comply with contaminant release limits to land (non-compliant results highlighted below in Table A). Failure to comply with contaminant release limits to land is an alleged contravention of **condition L2** of the EA.

Table A - Non-compliant results

	EA Limit	26/07/2023	31/05/2023	15/03/2023	22/11/2022	4/07/2022
BOD	15 mg/L	25	4.9	5	no result	2.6
Suspended Solids	15 mg/L	20	4.1	30	12	38
Turbidity	5 NTU	27.4	4.8	21.2	21.7	6.12
Nitrogen (total)	15 mg/L	67	44.6	26.5	24.1	37.2
Phosphorus (total)	8 mg/L	15.4	11.5	11.3	14.5	13.6
Residual Chlorine	1 mg/L	0.79	0.16	1.3	900	<0.08
E. coli	< 10 CFU per 100 mL	< 10	< 10	< 10	< 10	14000

22. A review of the lab reports indicates non-compliances with release limits specified in **condition L4** of the EA and as a result you were required to monitor releases in accordance with monitoring frequency 1 as specified in **condition L4 (Table 2)** of the EA. Failing to conduct monitoring at the required frequency specified in the EA is an alleged contravention of **condition L4** of the EA.
23. Information contained in your email of 18 September 2023 confirms that you had not carried out monitoring of treated effluent during the 12 months prior to 04 July 2022. Failure to monitor contaminant releases to land (treated effluent) is an alleged contravention of **condition L4** of the EA.
24. Information contained in your email of 18 September 2023 states that you had not carried out monitoring of groundwater during the 12 months prior to 04 July 2022. It's the departments understanding that groundwater monitoring has not been conducted in accordance with the conditions of the EA since then. Failure to conduct monitoring of groundwater is an alleged contravention of **condition WT3** of the EA.
25. Laboratory analysis certificates received by the department indicate that you were issued copies of the certificates generally within 7 Days of laboratory completion of analysis. A search of departmental records indicates that notifications were not made to the department within 24 hrs of becoming aware of non-compliant contaminant release limits. Failure to notify the department within 24hrs of becoming aware of a breach of the EA is an alleged contravention of **condition G2** of the EA.
26. On 23 November 2023 departmental officers inspected sewage treatment activities at the premises. During this inspection departmental officers were shown three (3) groundwater monitoring bores at the premises. A review of departmental records indicates that there should be a total of five (5) groundwater monitoring bores at the premises. During this inspection departmental officers were advised that a building has been constructed over the top of groundwater monitoring well 5 (MW5). Officers did not sight monitoring well 2 (MW2) and subsequent reviews of aerial imagery raises concerns about possible

impacts of recent construction on this monitoring bore as well. This is an alleged contravention of **condition WT2** of the EA.

27. Inspection observations and a review of aerial imagery indicates residential and/or caravan sites have encroached into the designated irrigation area as indicated by Area A, map 2 of Appendix 1 of the EA. This is an alleged contravention of **condition L12** of the EA.
28. Given the above facts and circumstances, it is also considered that you have failed to meet **condition G1**.
29. By having effluent quality release exceedances, failing to notify and failing to monitor effluent releases and conduct an adequate groundwater quality monitoring program, you have not taken all reasonable and practical measures to prevent the likelihood of environmental harm being caused. You have therefore failed to comply with your General Environmental Duty.
30. The department considers that it is reasonable to issue this EPO to require you to take reasonable steps to comply with the conditions of the EA and with your General Environmental Duty.

B. Requirements

In accordance with this EPO, you are required to do the following:

1. **By 16 February 2024**, you must:

- a) engage an **appropriately qualified person(s) (AQP)** to undertake the requirements of this EPO and confirm the engagement in writing to widebay.esr@des.qld.gov.au. The written confirmation of the engagement must include each persons' qualifications and suitable experience relevant to the scope of work each AQP will undertake.

Investigations, assessments and reporting by AQP

2. You must require the AQP to:

- a) carry out a performance assessment of the sewage treatment plant (STP) and develop recommendations to achieve compliance with **Table 1 – Contaminant Release Limits to Land** (please reference Table 1 below); and
- b) carry out an assessment of the current irrigation area and develop recommendations to achieve compliance with condition L6 and condition L12, (including minimum size requirements for the irrigation area of 5,538m² and buffer zones of at least 4 metres between the irrigation area and caravan/residential sites); and
- c) carry out an assessment of the groundwater monitoring network and develop recommendations to achieve compliance with **condition WT2** of the EA, in particular recommend a sufficient number of monitoring bores that provide the following:
 - i. representative groundwater samples from the uppermost aquifer; and any other potentially affected aquifers,
 - ii. background groundwater quality in hydraulically up-gradient or background bore(s) that have not been affected by any release of contaminants to groundwater; and
 - iii. the quality of groundwater within the treated sewage effluent irrigation area(s); and
 - iv. the quality of groundwater down gradient of any potential sources of contamination.

3. By **28 June 2024**, you must require the AQP(s) to prepare report(s) with the findings of:
 - a) the performance assessment of the STP, and the assessment of the irrigation area in accordance with **requirements 2. a and b**; and
 - b) the assessment of the groundwater monitoring network in accordance with **requirements 2. c and an assessment of the groundwater monitoring carried out in accordance with requirement 8 of this EPO**; and
 - c) the report(s) must include recommended actions, including a timeline for the implementation of any improvement works and measures to be implemented at the premises to achieve compliance with **conditions L2, L4, L6, L12 and conditions WT2 and WT3** of the EA.
4. By **12 July 2024**, you must submit the reports required by **requirement 3** of this EPO to widebay.esr@des.gov.au.
5. By **26 July 2024**, you must commence implementation of the recommended actions, improvement works and measures recommended by the **AQP(s)** as specified by the report required by **requirement 3** of this EPO.
6. By **1 November 2024** the works and measures recommended by the AQP(s) as specified by **requirement 3** of the EPO must be fully completed.

Treated Effluent Monitoring

7. By **23 February 2024**, you must commence and continue to carry out monitoring of treated effluent in accordance with condition L4 of the EA.

Groundwater Monitoring

8. By **23 February 2024**, you must commence and continue to carry out **monthly** monitoring of groundwater in accordance with condition WT3 of the EA. In the event that the groundwater monitoring bores are dry, this must be recorded as evidence of conducting monitoring.

Monitoring Requirements

9. All monitoring conducted under this EPO must be in accordance with the administering authority's Monitoring and Sampling Manual and all monitoring devices must be effectively calibrated and maintained.
10. All analysis required under this EPO must be carried out by a laboratory that has National Association of Testing Authorities (NATA) certification, or an equivalent certification, for such analysis
11. All monitoring results required under this EPO must be submitted to the administering authority via email to widebay.esr@des.gov.au within 24 hours of receiving results from the laboratory.

Final Report Requirements

12. By **2 December 2024**, the AQP(s) engaged in accordance with requirement 1 of this EPO must prepare a completion report that verifies all site improvement works required by this EPO have been implemented. A copy of the report must be submitted to the administering authority via email to widebay.esr@des.qld.gov.au within 1 week of receiving the report.

Definitions

An **appropriately qualified person(s)** means a person(s) who has professional qualifications, training, skills, or experience relevant to the requirements of the Environmental Protection Order, and can give authoritative assessment, advice and analysis using relevant protocols, standards, methods, or literature.

C. Obligations

If you propose to dispose of the place or business to which the EPO relates, you **must** advise the buyer of the existence of this EPO.

If you cease to carry out the activity to which this EPO relates, you **must** give written notice of ceasing to carry out the activity to the department within 10 days of ceasing the activity.

Take notice:

- the requirements of this order take effect immediately upon service of the order;
- failure to comply with this order is an offence under the Act;
- this order remains in force until further notice from the administering authority.

D. Penalty

It is important that you know the impact to you personally as an individual or as a corporation for not meeting your obligations.

Failure to comply with an EPO is an offence.

- The maximum penalty for wilfully contravening an EPO is 6250 penalty units, totalling \$ 967,500 or five years imprisonment for an individual or \$ 4,837,500 for a corporation.
- The maximum penalty for contravening an EPO is 4500 penalty units, totalling \$ 696,600 for an individual or \$ 3,483,000 for a corporation.

Failure to provide written notice to the buyer of the existence of the order is an offence.

- The maximum penalty is 50 penalty units, totalling \$ 7,740, for an individual or \$ 38,700 for a corporation.

Failure to provide written notice to the department within 10 business days of ceasing the activity to which an environmental protection order relates is an offence.

- The maximum penalty is 50 penalty units, totalling \$ 7,740 for an individual or \$ 38,700 for a corporation.

Section 3 of the *Penalties and Sentences Regulation 2015* prescribes the monetary value of a penalty unit.

E. 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 an original decision made by the Department of Environment, Science and Innovation (the department) may apply to have that decision internally reviewed.

Information about initiating an appeal in relation to this notice is contained within the [Internal Reviews and Appeals Information Sheet](#) (available at www.qld.gov.au using the publication number ESR /2015/1742 as a search term)

A request for review or appeal is to be made using the approved form '[Application for review of original decision](#)' (available at www.qld.gov.au using the publication number ESR/2015/1573 as a search term).

Applications for reviews are to be sent to Permit and Licence Management, Department of Environment, Science and Innovation: via email at palm@des.qld.gov.au , or by mail to the following address: GPO. Box 2454, Brisbane, QLD, 4001.

Notice Environmental Protection Order

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 be able to request a statement of reasons for a decision or a statutory order review under the *Judicial Review Act 1991*.

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

Pursuant to section 540 of the Act, the department is required to maintain a register of certain documents and information authorised under the Act. A copy of this document will be kept on the public register. The register is available for inspection by members of the public who are able to take extracts, or copies of the documents from the register. Documents that are required to be kept on the register are published in their entirety, unless alteration is required by the Act. There is no general discretion allowing the department to withhold documents or information required to be kept on the public register. For more information on the department's public register, search 'public register' at www.qld.gov.au. For queries about privacy matters please email privacy@des.qld.gov.au or telephone 13 74 68.

Should you have any queries in relation to the notice, please contact Jacinta Padgett, Environmental Officer of the Maryborough Compliance Centre on 07 4302 8589.



Signature

Tim Brain
Manager Compliance
Delegate of the Chief Executive
Department of Environment, Science and Innovation
Environmental Protection Act 1994

7/02/2024

Date

Enquiries: Jacinta Padgett
Compliance Centre: Maryborough
Ph: (07) 3330 5210
Email: widebay.esr@des.qld.gov.au

