

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.

Douglas Shire Council
64-66 Front Street
MOSSMAN QLD 4873

Attention: Ms Rachel Brophy, Chief Executive Officer

Your reference: EPPR01790513

Our reference: C-CPLRC-100643314; STAT-E-100644947

3/05/2024

Dear Rachel

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

The EPO is issued with respect to the activities of Douglas Shire Council at the Port Douglas Sewage Treatment Plant on land described as Lot 8 on Plan CP890713 situated at Port Road, Port Douglas QLD 4873 (the premises).

A. Grounds

This EPO is issued on the following grounds:

1. To secure compliance with condition 7.C4 of environmental authority EPPR01790513 (the EA), which requires:

“The release of contaminants to waters from Release Point W1 must comply with each of the limits specified in Schedule 7.C Table 1 for each quality characteristic.”

*Schedule 7.C – Table 1 (Release Quality Characteristic Limits) specifies the median and 80th percentile release limits for faecal coliforms to be 1000 cfu/100mL and 4000 cfu/100mL, respectively.

2. To secure compliance with section 319(1) of the EP Act, which states that:

*“A person must not carry out any activity that causes, or is likely to cause, environmental harm unless the person takes all reasonable and practicable measures to prevent or minimise the harm (the **general environmental duty**).”*



3. To secure compliance with section 440ZG(a)(i) of the EP Act, which requires:

“A person must not unlawfully deposit a prescribed water contaminant in waters.”

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

1. You are the holder of the EA, which took effect on 23 July 2021.
2. The EA authorises environmentally relevant activities 63(1d) sewage treatment of >4,000 but <10,000 EP and 58 regulated waste treatment at the premises.
3. On the morning of 21 April 2024, during a routine weekend inspection of the Port Douglas Sewage Treatment Plant (STP) by an on-call officer from the Douglas Shire Council (DSC), a burnt-out ultraviolet (UV) disinfection system was discovered, herein referred to as “the incident”.
4. On the same day, DSC notified the administering authority via the Pollution Hotline of the incident and the subsequent release of partially treated effluent into the receiving waters, known as Packers Creek and Dickson Inlet.
5. The *Environmental Protection (Water) Policy 2009 Wet Tropic Map Series*¹ identifies the following environmental values of Dickson Inlet: aquatic ecosystem, primary recreation, secondary recreation, aquaculture, visual recreation, industrial use and cultural/spiritual values.
6. The Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC/ARMCANZ 2000 Guidelines) specify the median bacterial content in samples of fresh or marine waters used for secondary contact recreation not to exceed 1000 faecal coliform organisms/100 mL (minimum of five samples taken at regular intervals not exceeding one month, with four out of five samples containing less than 4000 organisms/100 mL).
7. Condition 7.C4 of the EA requires that the release of contaminants to waters from Release Point W1 must comply with each of the limits specified in Schedule 7.C – Table 1 for each quality characteristic. Schedule 7.C – Table 1 (Release Quality Characteristic Limits) specifies the median and 80th percentile release limits for faecal coliforms to be 1000 cfu/100mL and 4000 cfu/100mL, respectively.
8. Interim results of final effluent samples taken on 24 April 2024 by DSC indicate contaminant concentrations between 39,000 cfu/100mL to 56,000 cfu/100mL, significantly exceeding the EA median and 80th percentile limits.
9. Schedule 10 of the *Environmental Protection Regulation 2019* identifies “sewage and sewage residues, whether treated or untreated, and any other matter containing faecal coliforms or faecal streptococci, including, for example, wastewater pumped out from a septic tank” as ‘prescribed water contaminants’.
10. In accordance with Schedule 4 of the EP Act, “waters” are defined as Queensland waters. Both Packers Creek and Dickson Inlet, designated as the receiving waters for the Port Douglas STP effluent, fall within the definition of Queensland waters.
11. Since the incident occurred, partially treated sewage containing a significant amount of faecal coliforms has been consistently releasing into the Packers Creek and Dickson Inlet. Consequently, the administering authority has determined that you are in breach of section 440ZG of the EP Act.
12. Section 14 of the EP Act defines “environmental harm” 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.

¹ [WQ1081 Daintree and Mossman River Basins plan map for environmental values and water quality objectives \(des.qld.gov.au\)](#)

13. The release of inadequately treated sewage from the premises poses a substantial risk of causing environmental harm to Packers Creek and Dickson Inlet waters, such as:
 - a. High levels of faecal coliforms can render the water unsafe for human use, such as swimming and fishing.²
 - b. High levels of faecal coliforms can directly harm aquatic organisms. Some pathogens present in faecal matter can infect and kill fish and other aquatic life, disrupting the natural balance of ecosystems.³
 - c. Water bodies contaminated by high levels of faecal coliforms are unsuitable for recreational activities such as swimming, boating and fishing. This can have economic implications for local communities that rely on tourism and recreational industries.
14. The administering authority considers it is appropriate to require you to take reasonable measures to fulfil your general environmental duty to prevent or minimise the environmental harm.
15. The administering authority has determined that, pursuant to section 358 of the EP Act, an environmental protection order (EPO) is the most suitable mechanism to secure your compliance with condition 7.C4 of the EA, sections 319 (general environmental duty) and 440ZG of the EP Act.

B. Requirements

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

1. By **5:00pm on 13 May 2024**, in consultation with Queensland Health, you must develop and implement a public information dissemination plan aimed at informing the public about the potential risks associated with using the waters of Packers Creek and Dickson Inlet while partially-treated effluent is being released into the receiving waters.
2. By **5:00pm on 20 May 2024**, you must develop and implement an Environmental Monitoring Program and submit a copy to the department via email on ESTownsville@des.qld.gov.au.
3. The Environmental Monitoring Program developed under Requirement 2 must:
 - a. Identify the release and monitoring points (GPS coordinates) within the receiving water of Packers Creek and Dickson's Inlet, taking into consideration tidal movements and characterisation of upstream and downstream waters.
 - b. Specify the parameters to be monitored at each designated monitoring point.
 - c. Set out the proposed monitoring frequency for each parameter at each monitoring point.
 - d. Include daily monitoring of effluent release flow volume.
 - e. Include a plan/map detailing the location of the release point and proposed receiving water monitoring points.
 - f. Stipulate that all laboratory analysis must be conducted by a NATA accredited laboratory.
 - g. Include details regarding the frequency of reporting monitoring results to the department. The Report must include:
 - i. Analysis of the results against the relevant EA contaminant limits and/or ANZECC/ARMCANZ (2000) trigger/limit values.

² *Surface Water: the Role of Faecal Coliform and Waterborne Pathogens (knowyourh2o.com)*

³ *Surface Water: the Role of Faecal Coliform and Waterborne Pathogens (knowyourh2o.com)*

- ii. Raw monitoring data provided in electronic Excel format.
 - iii. Copies of CoA from the NATA accredited laboratory.
- 4. You must incorporate any comments provided by the department on the Environmental Monitoring Program.
- 5. By **5:00pm on 3 June 2024**, you must carry out an investigation into the incident and submit an Investigation Report. The investigation and report should comprehensively cover the following aspects:
 - a. The root cause of the incident.
 - b. Approximate date and time of the incident.
 - c. Quantification (and actual or likely quality) of the partially treated effluent released into the receiving water of Packers Creek and Dickson Inlet.
 - d. Assessment of the impacts and environmental harm caused by the incident.
 - e. Detailed strategies and preventative (including disinfection contingency) measures to prevent recurrence of similar incidents.
 - f. Plan and projected timeframe to replace the UV Disinfection System.
- 6. By **5:00pm on 3 June 2024**, you must investigate alternative measures to, at least, reduce the volume of partially-treated effluent released to receiving waters and/or prevent or reduce the amount of contaminants released to receiving waters.
- 7. The investigation referred to under Requirement 6 must include a risk assessment regarding the use of interim disinfection methods (e.g., chlorination). The risk assessment must consider:
 - a. The environmental values of the receiving waters and/or irrigation areas.
 - b. Options for disinfection, including the 'do nothing' option.
 - c. Potential environmental impacts of each option on the environmental values.
 - d. Selection of an appropriate disinfection option, after considering points (a-c) above.
- 8. By **5:00pm on 2 August 2024**, you must develop and commence implementing a detailed Design Plan/Report to replace the UV Disinfection System and submit a copy to the department via email on ESTownsville@des.qld.gov.au.
- 9. The detailed Design Plan/Report to replace the UV Disinfection System must:
 - a. Be prepared and certified by an appropriately qualified person.
 - b. Include specification and justification on the proposed UV Disinfection System.
 - c. Include reasonable timeframe to implement the UV Disinfection System.
 - d. Include operation and maintenance plan for the proposed UV Disinfection System.
 - e. Include measures to prevent failure of the UV Disinfection System.
- 10. By **5:00pm on 1 November 2024**, you must submit a status report detailing the progress of the UV Disinfection System implementation.
- 11. By **5:00pm on 3 February 2025**, you must complete the restoration/replacement of the UV Disinfection System in accordance with the detailed Design Plan/Report.

12. By **5:00pm on 2 May 2025**, you must submit a Final Report detailing compliance with the requirements of this EPO.
13. The following **definitions** apply to the requirements of this EPO:
- a. **‘Appropriately qualified person’** means a person who has professional qualifications, training, skills and experience relevant to the requirements and can give authoritative assessment, advice and analysis in relation to the requirements using the relevant protocols, standard, methods or literature.
 - b. **‘ANZECC/ARMCANZ’** means Australian and New Zealand Environment and Conservation Council/Agriculture and Resource Management Council of Australia and New Zealand.
 - c. **‘CoA’** means Certificate of Analysis.
 - d. **‘Department’** means the Administering Authority or the Department of Environment, Science and Innovation.
 - e. **‘EA’** means environmental authority EPPR01790513 issued on 23 July 2021.
 - f. **‘Incident’** means the burnt-out ultraviolet (UV) disinfection system at the Port Douglas STP.
 - g. **‘NATA’** means National Association of Testing Authorities
 - h. **‘Receiving waters’** mean the Packers Creek and Dickson Inlet.
 - i. **‘UV’** means ultra-violet.

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 EP 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 EP Act.

A person who is dissatisfied with an original decision made by the Department of Environment and Science (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 and Science: via email at palm@des.qld.gov.au , or by mail to the following address: GPO. Box 2454, Brisbane, QLD, 4001.

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 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 Alex Apostol on 07 4222 5316 or alex.apostol@des.qld.gov.au.

Notice
Environmental Protection Order



Signature

Mark Cavicchiolo

Compliance Delivery Manager

Delegate of the Chief Executive

Department of Environment, Science & Innovation

Environmental Protection Act 1994

3/05/2024

Date

Enquiries:

COMPLIANCE CENTRE: Cairns

Ph: (07) 4222 5324

Email: ESTownsville@des.qld.gov.au