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.

Sealord King Reef Pty Ltd (ACN 105 576 609)
Suite 3, Level 1
19 Harris Street
PYRMONT NSW 2009

cc: ~~Scott.Shanks@sealord.com.au~~ Rob.McKendrick@sealord.com.au

Your reference: EPPR00390913

Our reference: C-CPLRC-100000603, STAT-E-100068167

~~3 March 2021 1 December 2021~~ 8 November 2022

Take notice: that under the *Environmental Protection Act 1994* (the Act) an amended notice to conduct or commission an environmental investigation is issued to Sealord King Reef Pty Ltd (ACN 105 576 609) (you) by the administering authority. The administering authority is the Chief Executive of the Department of Environment and Science (the department).

The amended notice to conduct or commission an environmental investigation is issued in respect of the **"farm operation"** activities of Sealord King Reef Pty Ltd on land described as Lot 1 Plan NR5347, Lot 2 CP886368, Lot 295 RP814124 and Lot 1 RP721954 (the premises) and Cowley Creek.

This notice to conduct or commission an environmental investigation (the notice) was originally issued on 3 March 2021, amended on 1 December 2021 and 8 November 2022. New text in the amended notice is shown as underlined and deleted text is shown as strikethrough. The notice issued on 1 December 2021 remained in force until the issue of this amended notice.

A. Grounds

The notice to conduct or commission an environmental investigation is issued on the following grounds:

I. In accordance with section 326B(1)(b) of the Act, the department is satisfied that "*an activity or proposed activity is causing, or is likely to cause environmental harm*".

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

1. You own and operate a barramundi farm facility at the premises which is run in conjunction with a barramundi nursery facility nearby on the Bruce Highway, Mourilyan.
2. You are the holder of environmental authority EPPR00390913 (EA) which was issued 7 January 2021 and authorises ERA 1 – Aquaculture.
3. The location of the premises is within the Johnstone River Basin, adjacent to both Cowley and Liverpool Creeks and up-gradient of their confluence.
4. The EA authorises releases in the form of "aquaculture wastewater" to the waters of Cowley Creek and Liverpool Creek and prescribes release limits for multiple quality characteristics. The limits have been assessed and approved by the administering authority.
5. Release of contaminants is authorised via three release points, W1 and W2 via drainage line into Cowley Creek and W3 via drainage line into Liverpool Creek system (which you are not currently utilising).
6. The receiving environment of Cowley Creek includes MSES regulated vegetation (category R – GBR riverine).
7. Every month for 15 months between July 2019 to September 2020 you exceeded contaminant release limits set by condition Part 2 C5 of the EA for both total nitrogen and total phosphorous at W1 and W2.
8. During July 2019 to September 2020, you also had a number of exceedances of limits set by condition Part 2 C5 of the EA for Chlorophyll 'a' and Dissolved Oxygen.
9. These exceedances have also coincided with a significant number of exceedances of EA condition Part 2 C4 for wastewater discharge volumes across this period indicating a likely increase in nutrient loadings in the receiving environment.
10. Further, these exceedances have coincided with the later stage of a five (5) year period (between November 2015 and July 2020) where you did not undertake any receiving environment monitoring program as required by your EA condition Part 2 H9. This program is necessary to identify and monitor potential impacts as a result of the activity. Without this monitoring, investigation is required to assess the impact of the increased concentrations and volume of contaminants.
11. Water samples taken by department officers on 12 August 2020 (departmental sampling) reported concentrations from W1 and W2 for total nitrogen (1.2 mg/L and 2.8 mg/L) and total phosphorus (0.22 mg/L and 1.42 mg/L) exceeding the respective EA limits at both W1 and W2 release points, confirming the continuation of non-compliant releases.
12. Departmental sampling has confirmed:
    a. total nitrogen concentrations (1.4 mg/L) at a downstream site within Cowley Creek exceeded total nitrogen concentrations of both upstream reference sites (0.4 mg/L and 0.7 mg/L) indicating a likely impact from premises releases; and
    b. total phosphorous concentrations (0.03 mg/L) at a downstream site within Cowley Creek exceeded the total phosphorous concentration of one upstream reference site (<0.01 mg/L) indicating a likely impact from premises releases; and
    c. both total nitrogen and total phosphorus concentrations at the downstream site within Cowley Creek exceeded the Water Quality Objectives (total nitrogen <0.34 mg/L and total phosphorous <0.025 mg/L) to protect aquatic ecosystem environmental values (*Environmental Protection (Water and Wetland Biodiversity) Policy 2019)* (EPP Water); and
    d. ammonia concentrations at the downstream site (1.29 mg/L) was higher than both the upstream reference sites (0.22 mg/L and 0.13 mg/L) indicating downstream impacts; and
    e. wastewater is a source of ammonia with concentrations of 0.23 mg/L at release point W1 and 1.45 mg/L at release point W2.

13. Ammonia concentrations in the receiving environment exceed the toxicity guideline for ammonia for freshwater (0.9 mg/L), based on the 2000 ANZECC/ARMCANZ National Water Quality Guidelines (ANZECC 2000), as well as the water quality objectives to protect aquatic ecosystem environmental values (<0.01 mg/L) stated in the EPP Water.
14. ANZECC 2000 identifies that ammonia can be acutely toxic above 0.5 mg/L for freshwater invertebrates and above 0.88 mg/L for freshwater fish.
15. The enrichment of waters with nutrients (eutrophication) can cause an abundance of aquatic plant growth (leading to deficiencies in dissolved oxygen) and can stimulate algal blooms (including toxic cyanobacteria). Direct and indirect results of eutrophication within freshwater ecosystems include increased pH, the production and release of algal toxins and gill obstruction and irritation in fish.
16. Environmental harm is described under 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…*"
17. Due to the long-term exceedances of EA limits in released wastewater quality and quantity, the identified changes in water quality downstream of the release points and the environmental harm known to be associated with the monitoring results for nitrogen, phosphorous and ammonia the department considers that your activities are likely causing environmental harm.
18. The department has determined that the facts and circumstances support the issuing of this notice to conduct or commission an environmental investigation under section 326B(1)(b) of the Act and that the requirements of this notice are considered reasonable and relevant for you to investigate the environmental harm from the **farm operation**.

B. Requirements

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

1. By 24 March 2021 you must engage an appropriately qualified person to plan, commence and complete a detailed environmental evaluation (investigation) to examine the source, cause and extent of environmental harm to Cowley Creek from your **farm operation**, with the scope of the investigation being detailed in an "Investigation Scope", as also described in Requirement 2.

2. The Investigation Scope must:
   a) assess the **farm operation** against a detailed assessment of environmental values, water quality objectives and management goals of Cowley Creek (the waters) as specified in Schedule 1 of the *Environmental Protection (Water and Wetland Biodiversity) Policy 2019* "Johnstone River Basin Environmental Values and Water Quality Objectives, Basin 112"; and
   b) evaluate aquaculture wastewater releases against limits within EA EPPR00390913; and
   c) monitor and measure water quality at a representative number of sites within Cowley Creek, both upstream and downstream of the release points (including mixing zones), during the wet season, during the dry season and during intermittent high flow events, in order to determine any changes in water quality for the entire creek system from the upstream sample points to the confluence with Liverpool Creek; and
   d) monitor and measure water quality observations and critical water quality changes through the farm operation from supply water intake to aquaculture wastewater releases, including in production ponds, drains, settlement areas, bioremediation areas and zig-zag wetland (polishing) areas; and
   e) conduct a minimum of fortnightly nutrient monitoring and daily flow monitoring of both the water supply intake and the aquaculture wastewater releases; and

f) conduct a robust estimate of flows in Cowley Creek at the time of each sampling event; and
g) include the planned operational measures for monitoring events that will be implemented to overcome and control both the Saltwater Crocodile risk and biosecurity risk involving access to monitoring sites in consideration of Panama Disease.

3. By 18 May 2021 you must submit the Investigation Scope to the department.

4. By 1 June 2021 you must incorporate any recommendations provided to you from the department into the Investigation Scope.

5. By 18 November 2021 you must provide a Six Month Report of the environmental investigation prepared by the appropriately qualified person that describes:
   a) the water quality characteristics of the receiving waters, being Cowley Creek, and
   b) any measured impact from the **farm operation** on Cowley Creek, and
   c) any operational measures implemented at the **farm operation** to improve water quality and detailed comment on their specific impact on water quality, and
   d) based on the findings of the initial stage of the investigation, provide recommendations to improve the water quality released from the **farm operation**.

6. By 18 May 2022 you must provide a Twelve Month Report of the environmental investigation prepared by the appropriately qualified person that describes:
   a) the water quality characteristics of the receiving waters, being Cowley Creek, and
   b) any measured impact of the farm operation on Cowley Creek, and
   c) a review of all measures implemented at the **farm operation** since commencement of the environmental investigation and detailed comment on their specific impact to water quality, and

7. By ~~17 June 2022~~ ~~17 November 2022~~ **31 March 2023** you must provide an Environmental Report about the environmental investigation that:
   a) reviews and assesses the environmental impact of the release of aquaculture wastewater into Cowley Creek from the **farm operation**, and
   b) reviews and assesses your compliance with relevant water quality and quantity limits in the EA, and
   c) reviews and assesses your ability to secure releases that support the water quality objectives in the EPP Water, and
   d) reviews and assesses the current infrastructure of the **farm operation**, and makes any necessary recommendations in order to:
      - comply with EA water quality and quantity limits, and
      - minimise impact on the receiving environment, and
   e) identifies a timeframe for an implementation program for 7. part (d) above,
   f) documents the process for managing water quality at the **farm operation** to be incorporated into operational plans for water quality management. The documented process is to include a Risk Assessment (including mitigating actions) for potential impacts to water quality,
   g) identifies any required changes to your Receiving Environment Monitoring Program required under your EA Part 2 condition H9, including timeframes for implementation.

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.

I. The maximum penalty for an individual is 300 penalty units, totalling $40,035.

II. The maximum penalty for a corporation is 1500 penalty units, totalling $200,175.

Should you have any queries in relation to this notice, please contact ~~Peter Montague~~ Alex Apostol of the department on telephone number (07) ~~4222 5161~~ 4222 5316.

	8 November 2022
Signature	Date

~~Nadine Cooper~~ Tim Brain

~~A/~~Manager - Compliance

Delegate of the Chief Executive

Department of Environment and Science

Environmental Protection Act 1994

Enquiries:

~~Peter Montague~~ Alex Apostol

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Definitions
"farm operation" – means the Sealord King Reef Pty Ltd barramundi aquaculture facility activity located at 188 Cowley Creek Road on land parcels Lot 1 Plan NR5347, Lot 2 CP886368, Lot 295 RP814124 and Lot 1 RP721954.

The environmental investigation must be carried out, and the environmental report prepared by a suitably qualified person. A suitably quality person is defined as a person or persons who has demonstrated professional qualifications, training, skills or experience relevant to performing the function.

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.

The suitably qualified person who prepares the environmental report must also provide a statutory declaration in the form attached to the environmental report submitted to the department.

Copies of the template statutory declarations can also be accessed from the Queensland Government website at www.qld.gov.au, using the publication number as a search term:

I. Statutory declaration environmental evaluation for recipient (ESR/2016/1997)

II. Statutory declaration for suitably qualified person (ESR/2016/2266)

Take notice:

1. The requirements of the notice to conduct or commission an environmental investigation take effect immediately upon service of this notice;
2. This notice remains in force until further notice from the department; and
3. 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.