Permit

Environmental Protection Act 1994

Environmental authority EA0002345

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

Environmental authority number: EA0002345

Environmental authority takes effect on 30 June 2023.

Environmental authority holder(s)

Name(s)	Registered address
DE COSTI SEAFOODS PTY LTD	15050 Bruce Hwy GREGORY RIVER QLD 4800 Australia

Environmentally relevant activity and location details

Environmentally relevant activity/activities	Location(s)
ERA 01 - Aquaculture 1: Cultivating or holding crustaceans in enclosures that are on land and have a total area of (c) more than 100ha ERA 27 - Seafood processing: Seafood processing (the relevant activity) consists of processing, in a year, 500t or more of seafood or seafood products	LOT 2 on SP241760 LOT 3 on SP241760 LOT 4 on SP241760

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).

Queensland Government

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.

Amanda Gray
Department of Environment and Science
Delegate of the administering authority
Environmental Protection Act 1994

Date issued: 30 June 2023

Amanda Gray

Enquiries:
Coastal and Marine 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:

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

Conditions of environmental authority EA0002345

Relevant Activities:	**Location:**
1(c) Aquaculture**;** Cultivating or holding crustaceans in enclosures that are on land and have a total area of (c) more than 100ha. 27 Seafood processing: Seafood processing consists of processing, in a year, 500t or more of seafood or seafood products.	Lot 2 SP241760 Lot 3 SP241760 Lot 4 SP241760

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

Agency interest: General	
Condition number	**Condition**
G1	Activities under this environmental authority must be conducted in accordance with the following limitations: 1. Within the bounds and specification of the approved plans listed below: a) 'Site Layout' prepared by Capital Consulting Engineers, dated 26/03/20, reference TIT-P-ST4-501, revision E.
G2	This approval permits the operation of: a) Not more than 535 hectares of production **ponds**; b) Not more than 137 hectares of treatment **ponds**; c) Two hatcheries to supply juvenile prawns; and d) Seafood processing plant for the purpose of processing seafood produced at the site.
G3	The owner of the **land** must ensure that any person who they allow or employ to carry out the activities permitted by this environmental authority: a) Is competent, or under the supervision of a person who is competent, to carry out the activities; and b) Understands the conditions of this environmental authority.
G4	All **records** required by the conditions of this environmental authority must be kept for a minimum of five years and all environmental monitoring results and underlying raw data, must be kept until surrender of this environmental authority.
G5	All **records** required by the conditions of this environmental authority must be provided to the **administering authority** upon request by the time and in the format requested.
G6	An Environmental Management Plan[1] for the **activity** must be developed and implemented by 1 February 2022. [1] Note: The Environmental Management Plan is subject to review and amendment as required by changing regulation, monitoring results or **administering authority** recommendations.

G7	The Environmental Management Plan must contain all of the following: 1. Clearly stated aims and objectives. 2. Description of operation including: a) Identification of all potential risks to the environment from the **activity**, including during and outside routine operations, during closure and in an emergency. b) **Measures** to prevent or minimise the potential for **environmental harm** for each of the potential risks identified. c) An inspection and maintenance program for plant and equipment including calibration and servicing that is in accordance with manufacturer's instructions. d) A staff training program on obligations under this environmental authority and the *Environmental Protection Act 1994* to be conducted as part of staff inductions and at least annually. e) Operational procedures detailing operation, management, accountabilities, recording and reporting requirements and actions to be taken in the event of non-conformance with the procedure for the following aspects of the **activity**: (a) Water management (**pond** water and discharges); (b) Organic waste (sludge) management (handling, storage and monitoring); (c) Land management (vegetation, sediment and erosion, **acid sulfate soils**, wildlife, weed and feral animals, fire and cultural heritage); (d) Hazardous substances and chemicals management; (e) Waste management; (f) Air emissions (odour and noise); and (g) Complaints management. f) Duration and timing of the growout and harvest cycles. g) Characterisation of the organic waste (sludge) material including a chemical analysis and estimated volume of material that will be produced. h) Timing and procedure for inspecting the waste disposal area and drainage systems. i) Methods to maintain the proper functioning of the sediment basin.
G8	The Environmental Management Plan required by condition G7 must be: a) Implemented; and b) Reviewed at least annually; and c) Provided to the administering authority upon request at the time and in the format requested.
G9	Plant and equipment necessary to comply with the conditions of this environmental authority must be installed, operated and maintained: a) In a proper and effective manner; and b) In accordance with any written procedures developed under condition G7 for the plant and equipment.
G10	The Environmental Management Plan must not be implemented or amended in a way that contravenes, or is inconsistent with, any condition of this environmental authority.

G11	The Environmental Management Plan must be provided to the **administering authority** at either of the addresses below: PALM@DES.qld.gov.au; or Department of Environment and Science Permit and License Management Implementation and Support Unit GPO Box 2454 Brisbane Qld 4001
G12	The Environmental Management Plan must be submitted to the **administering authority** by 1 February 2022 and amended in accordance with any comments made by the **administering authority**.
G13	Each time the Environmental Management Plan is amended it must be submitted to the **administering authority** and amended in accordance with any comments made by the **administering authority** prior to its implementation.
G14	Chemicals and fuels in containers of greater than 15 litres must be stored within a **secondary containment system.**
G15	By 1 February 2022, a **Receiving Environment Monitoring Program**[1] for the **activity** must be developed and implemented to monitor, identify and describe any adverse impacts to surface water **environmental values**, quality and flows due to the authorised **activity**[2]. [1] Note: The **Receiving Environment Monitoring Program** is subject to review and amendment as required by changing regulation, monitoring results or **administering authority** recommendations. [2] All sampling must be in accordance with the latest edition of the administering authority's Monitoring and Sampling Manual.

G16	The **Receiving Environment Monitoring Program** must contain all of the following: 1. Clearly stated aims and objectives of the **Receiving Environment Monitoring Program**. 2. A monitoring program[1] to monitor the effects of the **activity** on the receiving environment regularly and while wastewater is being discharged from the site, that includes: a) Suitable test sites within the receiving waters[2] that are potentially impacted by the release; b) Control sites where relevant background or reference conditions can be established; and c) Monthly sampling not including periods during or immediately after rainfall. 3. A monitoring program to monitor the effects of the **activity** on the receiving environment[1] regularly and while wastewater is being discharged from the site[2]. 4. A program to assess water quality. 5. A program to assess seagrass[3]. 6. A program to assess any change to coastal processes (including erosion) due to wastewater releases and impacts to tidal prism. 7. A program to specifically monitor the erosion area on the opposing bank of **Release Point** W1, which, at a minimum includes the following: a) Is conducted at least monthly; and b) includes a hydrographic survey of the potentially affected area, and adjacent areas within 25m, on lines not more than 10m apart. 8. A program for annual assessment and reporting that complies with the requirements of conditions G31 and G32. 9. A detailed description of the assessment methodology to provide data in relation to **trigger values** that will define **alert levels**[4]. 10. Clearly set out data handling and evaluation procedures that demonstrate how exceedance of **alert levels** will be determined. 11. Management actions to be initiated if **alert levels** are exceeded[5]. [1] For the purposes of the **Receiving Environment Monitoring Program**, the receiving environment is the waters of the unnamed tributary of Eden Lassie Creek, the Eden Lassie Creek estuary, Gregory River Estuary and parts of Edgecombe Bay surrounding waterways within 10km of the release. The **Receiving Environment Monitoring Program** should encompass any sensitive receiving waters or **environmental values** that will potentially be directly affected by an authorised release from the facility. [2] At a minimum, the requirements of WT19 must be met by the program. [3] Seagrass monitoring must be undertaken in accordance with the "Guidance on Seagrass Monitoring" set out in the administering authority's Monitoring and Sampling Manual. [4] At a minimum, the requirements of WT19 must be met when setting **trigger values**. [5] At a minimum, the requirements of WT22 and WT23 must be met by the management actions.
G17	The **Receiving Environment Monitoring Program** must not be implemented or amended in a way that contravenes, or is inconsistent with, any condition of this environmental authority.

G18	The **Receiving Environment Monitoring Program** must be provided to the **administering authority** at either of the addresses below by 1 February 2022: PALM@DES.qld.gov.au; or Department of Environment and Science Permit and License Management Implementation and Support Unit GPO Box 2454 Brisbane Qld 4001
G19	The **Receiving Environment Monitoring Program** must be amended in accordance with any comments made by the **administering authority**.
G20	Condition G18 applies each time the **Receiving Environment Monitoring Program** is amended.
G21	Any contravention 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.
G22	A report under condition G21 that relates to a release to **waters** must be submitted via **WaTERS**, unless otherwise agreed by the **administering authority**.
G23	Within **ten (10) business days** following the initial notification of any contravention of a condition of this environmental authority in accordance with **Condition G21**, or receipt of monitoring results, whichever is the latter, further written advice must be provided to the **administering authority**, including the following: a) Results and interpretation of any samples taken and analysed; b) Outcomes of actions taken at the time to prevent or minimise unlawful **environmental harm**; and c) Proposed actions to prevent a recurrence of the emergency or incident.
G24	Before applying to surrender this environmental authority, the site must be rehabilitated to achieve a safe, stable, non-polluting landform.
G25	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 Dissolved Oxygen, pH, temperature and Electrical Conductivity.
G26	All monitoring required by this environmental authority must be recorded.
G27	All monitoring required by this environmental authority must be carried out and interpreted by an **appropriately qualified person(s)**.

G28	Details of all **environmental complaints** received must be recorded including: a) Date and time the complaint was received; and b) Name and contact details of the complainant when provided by the complainant; and c) Nature and details of the complaint; and d) Investigations undertaken; and e) Conclusions formed; and f) Actions taken.
G29	When required by the **administering authority**, monitoring must be undertaken in the manner prescribed by the **administering authority** to investigate any alleged **environmental harm** caused by the **activity**.
G30	Any report, results and underlying raw data, of monitoring required by condition G29 must be recorded.
G31	An annual monitoring report must be prepared and submitted to the **administering authority** by 31 August each year, for the preceding **financial year**.
G32	The annual monitoring report required by condition G31 must include: a) Findings as a result of the **Receiving Environment Monitoring Program** for the period; and b) Calculation of **Annual Mass Load** of **Total Nitrogen**, **Total Phosphorus** and **Total Suspended Solids** in accordance with condition WT18; and c) A summary of the previous 12 months monitoring results including graphical representations identifying relevant indicator limits, if this data has not already been reported to the **WaTERS** database; and d) An assessment of reference water quality for each water type; and e) The condition of all water quality monitoring sites compared against water quality objectives; and f) An assessment of the suitability of current discharge limits to protect downstream **environmental values**; and g) An outline of actions taken or proposed to minimise any environmental risk identified from, for example, monitoring and **environmental complaints**; and h) Calculations of the volume and frequency of wet weather storage overflows, where applicable; and i) The results of monitoring required by condition WT26 and WT27; and j) A calculation of the quantity of contaminants released to waters under WT28 for the preceding year.

G33	Unless otherwise specified in a condition of this environmental authority, all **records** required to be submitted to the **administering authority** under this environmental authority, must be submitted to: 1300 130 372 (option 2) / pollutionhotline@des.qld.gov.au (for notifications under condition G21 that do not relate to a release to **waters**); or palm@des.qld.gov.au; or Permit and Licence Management Department of Environment and Science GPO Box 2454 Brisbane QLD 4001
Agency interest: Noise	
Condition number	**Condition**
N1	Noise from the **activity** must not cause **environmental nuisance** to any **sensitive place** or **commercial place**.
Agency interest: Air	
A1	Odours or airborne contaminants from the **activity** must not cause **environmental nuisance** at any **sensitive place** or **commercial place**.
Agency interest: Waste	
Condition number	**Condition**
W1	Other than as permitted by this environmental authority, all waste generated by the **activity** must be lawfully reused or recycled, and/or lawfully removed to a facility that can lawfully accept the waste.
W2	All packaging and general waste produced at the site must be disposed of at a facility which has a current environmental authority under the *Environmental Protection Act 1994* to receive the waste.
W3	Regulated wastes shall only be removed from the licensed place by a person holding a current environmental authority for regulated waste transport which included the type of regulated waste transported.
W4	Where regulated waste is removed from the site, **records** of the following must be kept: a) The date, quantity, and type of waste removed; and b) Name of the waste transporter and/or disposal operator that removed the waste; and c) The intended treatment/disposal destination of the waste.

W5	Where **diseased** organisms and/or **affected water** require offsite disposal the following **records** must be kept: a) The date, quantity and type of waste disposed of; and b) Name of the waste transporter and/or disposal operator that removed the waste; and c) Details of suspected or confirmed **disease**; and d) The intended treatment and/or disposal destination of the waste.
W6	The **administering authority** must be notified as soon as practicable, but no more than 24 hours, after becoming aware of any **disease** outbreak requiring treatment and/or drainage of **ponds**.
W7	A bunded waste disposal area must be provided for the treatment of **pond** sediments.
W8	Sludge removed from any **ponds** must be stored and/or disposed of in a manner that does not cause or have the potential to cause a release of contaminants.
W9	Any **diseased**, or potentially **diseased**, organisms and **affected water** removed from the **ponds** for disposal onsite must be disposed of in a separate lined and bunded disposal area.
W10	At the end of each day that **diseased**, or potentially **diseased**, organisms and **affected water** have been placed in the waste disposal area, the organisms and **affected water** must be covered with at least 200mm of earth.
W11	If organisms and/or **affected water** are placed in an onsite waste disposal area, the following **records** must be kept: a) Date and location placed; and b) Quantity of organism and/or **affected water** disposed; and c) Suspected or confirmed **disease**; and d) Details of any treatment applied to neutralise **disease**.
Agency interest: Water	
Condition number	**Condition**
WT1	Other than as permitted by this environmental authority, contaminants from the **activity** must not be released to **waters**.

WT2

Contaminants must only be released to surface **waters** where:

a) They are from the discharge locations; and
b) The release limits for each indicator are met at the discharge locations; and
c) Monitoring at all monitoring locations and at the frequency; and

as per '*Table 1 – Release Quality Characteristic limits and monitoring frequency';* and

d) The associated requirements are complied with.

Table 1 – Release Quality Characteristic limits and monitoring frequency

Monitoring location	Discharge location	Indicator	Release limit			Minimum monitoring frequency
			Minimum	Mean	Maximum	
Release point W1	**Release point W1**	pH	6.5		8.7	Daily
		Dissolved oxygen	90% of background or 5.0 (whichever is greater)			
		Turbidity				
		Electrical conductivity				
		Temperature				
		Total nitrogen (mg/L)		1.2	3.8	Weekly
		Ammonia (**mg/L**)				
		Oxidised nitrogen (**mg/L**)				
		Total phosphorus (mg/L)		0.11	0.28	
		Filtered reactive phosphorus (**mg/L**)				
		Total suspended solids (**mg/L**)		30	100	
		Chlorophyll-a (**µg/L**)				
		5-day Biochemical Oxygen Demand (mg/L)				

Associated requirements

1. Mean is calculated from a minimum of 14 consecutive samples taken during release during each **financial year.**
2. *Monitoring must be carried out in accordance with the methods prescribed in the current edition of the Department of Environment and Science Monitoring and Sampling Manual.*
3. *Water samples must be representative of the general condition of the water body.*
4. *All determinations must employ analytical techniques of sufficient sensitivity to enable comparisons to be made against water quality objectives/triggers/limits relevant to the particular water or sediment quality characteristics.*
5. *Monitoring must be undertaken during a release and at the frequency stated.*
6. *All monitoring devices must be calibrated and maintained according to the manufacturer's instruction manual.*

	7. *Ammonia, NOx and filterable reactive phosphorus (FRP) must be measured when **total nitrogen** and **total phosphorus** are monitored.*
WT3	The intake water at location Latitude -20.1786, Longitude 148.4497 must be monitored for the indicators and frequency specified in '*Table 1 – Release Quality Characteristic limits and monitoring frequency*'.
WT4	Notwithstanding any other condition of this environmental authority, the wastewater must be directed from the discharge structure **Release Point W1** in a manner which does not erode or otherwise disturb mangrove vegetation, the stream banks or the habitat in general.
WT5	The total quantity of water released from **Release Point W1** during any **day** must not exceed 500 ML.
WT6	The **annual daily mean** quantity of water released from **Release Point W1** during any **financial year** must not exceed 143 ML.
WT7	The volume of wastewater discharged at **Release Point W1** must be continuously measured upstream of the discharge point by use of a method which has been shown to be accurate by a Registered Engineer which includes a height measurement device and a data logger.
WT8	Notwithstanding any other condition of this environmental authority, any release of contaminants to **waters** must not produce any slick or other visible evidence of oil or grease, nor contain visible floating oil, grease, scum, litter or other **objectionable matter**.
WT9	Hourly and daily **records** of discharge volume must be kept.
WT10	All **ponds**, channels and containment structures used for the storage, use or treatment of aquaculture waters must be constructed and maintained: a) To minimise the likelihood of any release of water through the bed or banks of the **pond**, channels or containment structures to any **waters**; and b) To ensure the stability of the **ponds**, channels or containment structures; and c) In accordance with the relevant edition of the Queensland Government guideline titled 'Guideline for constructing and maintaining aquaculture containment structures'.
WT11	The floor of all **ponds** and channels shall be tested for compaction by a **NATA** registered soil tester.
WT12	All **ponds** will be constructed, operated and maintained to have 500mm of freeboard.
WT13	Diversion channels must be constructed to divert stormwater away from construction areas.
WT14	Stormwater from disturbed areas must be directed to the treatment **ponds**.
WT15	All growing **ponds**, settlement **ponds** and chemical storage areas shall be constructed at an elevation of 4.5 metres AHD or higher.
WT16	Contaminants from the **activity** must not be released to **groundwater** or to a location where they are likely to release to **groundwater**.

<table>
<tr><td>WT17</td><td>The Annual Mass Load of Total Nitrogen, Total Phosphorus and Total Suspended Solids released to waters from Release Point W1 must comply with the release limits listed in 'Table 2 – Contaminant Release to Waters – Annual Mass Load Limits'.

Table 2 — Contaminant Release to Waters – Annual Mass Load Limits
<table>
<tr><th>Release Point Name</th><th>Indicator</th><th>Limit Type</th><th>Release Limit</th></tr>
<tr><td rowspan="3">Release Point W1</td><td>Total Nitrogen (TN) Annual Mass Load</td><td>Maximum</td><td>33.872 tonnes/yr</td></tr>
<tr><td>Total Phosphorus (TP) Annual Mass Load</td><td>Maximum</td><td>2.968 tonnes/yr</td></tr>
<tr><td>Total Suspended Solids</td><td>Maximum</td><td>1,284 tonnes/yr</td></tr>
</table>
</td></tr>
<tr><td>WT18</td><td>The yearly sum of Daily Release Volume (ML) and Annual Mass Load of Total Nitrogen, Total Phosphorus and Total Suspended Solids released to waters must be calculated for each financial year.</td></tr>
</table>

WT19

The quality of the receiving **waters** must be monitored at the locations specified in '*Table 3 - Receiving water impact monitoring points'* for each quality characteristic and at the monitoring frequency stated in '*Table 4 - Receiving waters contaminant trigger level'*.

Table 3 - Receiving water impact monitoring points

Monitoring points*	**Receiving waters location description**	**Latitude (decimal degree, GDA94)**	**Longitude (decimal degree, GDA94)**
Impact monitoring points			
ELC_WQ_1	Eden Lassie Creek Mid Estuary	-20.1824	148.4136
EB_WQ_1	Eden Lassie Creek Lower Estuary	-20.1610	148.4152
EB_WQ_3	Edgecumbe Bay	-20.1389	148.4014

* A minimum of two reference sites located outside of the Eden Lassie Creek and Gregory River estuaries must also be monitored during impact monitoring.

Table 4 - Receiving waters contaminant trigger level

Quality Characteristic	**Median Trigger Limits***			**Monitoring Frequency**
	Eden Lassie Creek Mid Estuary	**Eden Lassie Creek Lower Estuary**	**Edgecumbe Bay**	
Total Nitrogen (**µg/L**)	250	200	140	Monthly, on outgoing tide
Total Phosphorus (**µg/L**)	20	20	20	
Suspended solids (**mg/L**)	20	15	10	
Chlorophyll-a (**µg/L**)	2	2	1	

* Median calculated from all monthly monitoring results taken over a 12-month rolling period.

WT20	In addition to the requirements of WT19, quality characteristics taken at each monitoring point must also include: a) pH; and b) Dissolved oxygen (percent saturation); and c) Turbidity; and d) Electrical Conductivity; and e) Temperature; and f) Ammonia (as N); and g) Oxidised nitrogen (as N); and h) Filterable Reactive phosphorus (as P).
WT21	Sampling under condition WT19 must be conducted during any month where discharge occurs from **Release Point W1** and a minimum of 8 samples are to be taken each calendar year.
WT22	If median of quality characteristics of the receiving water at impact monitoring points, calculated over a 12-month rolling period, exceed any of the median trigger limits specified in '*Table 4 - Receiving waters contaminant trigger level*', the environmental authority holder must undertake the following investigation: a) Compare water quality results of the impact monitoring point location to scheduled water quality objectives, historical monitoring and water quality measurements from reference sites to ascertain the cause of the limit exceedance; and b) Determine the nutrient release load and concentrations from **Release Point W1** during the period of the exceedance and compare this to release concentration and load limits in WT2 and WT17, respectively; and c) Review operation of the facility and potential methods for reducing the volume and concentration of contaminants in wastewater released from **Release Point W1.** Methods and timelines for implementing improvements must be proposed. d) If median of quality characteristics of the receiving water at impact monitoring points, calculated over a second consecutive 12-month period, exceed any of the median trigger limits specified in '*Table 4 - Receiving waters contaminant trigger level*', the environmental authority holder must propose revised discharge characteristics for WT2, including release concentrations and load limits, which will ensure receiving water contaminant trigger levels are not exceeded in the future.
WT23	The holder of this environmental authority must provide a report of the investigation to the **administering authority** via **WaTERS** within 28 days of completion of the investigation under condition WT22.

<table>
<tr><td>WT24</td><td>All determinations of water quality and biological monitoring and sampling must be performed by an appropriately qualified person and method of sampling of all water samples must comply with that set out in the latest edition of the administering authority’s Monitoring and Sampling Manual.</td></tr>
<tr><td>WT25</td><td>All water monitoring data must be uploaded to WaTERS quarterly in accordance with ‘Table 5 – WaTERS Upload Schedule’.

Table 5 – WaTERS Upload Schedule
<table>
<tr><th>Quarter</th><th>Reporting Period</th><th>Upload Due</th></tr>
<tr><td>1</td><td>January 1 – March 31</td><td>April 30</td></tr>
<tr><td>2</td><td>April 1 – June 30</td><td>July 31</td></tr>
<tr><td>3</td><td>July 1 – September 30</td><td>October 31</td></tr>
<tr><td>4</td><td>October 1 – December 31</td><td>January 31</td></tr>
</table></td></tr>
<tr><td>WT26</td><td>The quality of the receiving waters must be monitored at Harvest Monitoring 1 and Harvest Monitoring 2 at 0.2m depth weekly during harvest on and outgoing tide for each of the following quality characteristics:
a) Salinity; and
b) pH; and
c) Dissolved oxygen (percent saturation); and
d) Turbidity; and
e) Electrical Conductivity; and
f) Temperature; and
g) Total Nitrogen; and
h) Ammonia (as N); and
i) Oxidised nitrogen (as N); and
j) Organic Nitrogen; and
k) Total Phosphorus; and
l) Filterable Reactive phosphorus (as P); and
m) Total Suspended Solids; and
n) Chlorophyll a.</td></tr>
<tr><td>WT27</td><td>In addition to the requirements of WT26, the following must be recorded:
a) Sampling time; and
b) Time of the last high tide; and
c) Time of the next low tide; and
d) At least one clear photograph taken at the time and location of sampling showing the waterway immediately upstream.</td></tr>
</table>

WT28

In addition to the limitations of condition WT2, chemicals may only be added to ponds or **waters** which drain to the water treatment pond at the locations and concentrations specified in '*Table 6 - Chemicals Permitted to Water*'. Chemicals marked by an asterisk (*) may be substituted with other fertilisers or soil ameliorants which provide the equivalent active component.

Table 6 - Chemicals Permitted to Water

Chemical	Addition Location	Use Concentration/Application Rate
Calcium Hydroxide*	Ponds	50g/m^2
Calcium Peroxide*	Ponds	50g/m^2
Calcium Superphosphate*	Ponds	0.3mg/L
Magnesium Hydroxide*	Ponds	50g/m^2
Magnesium Oxide*	Ponds	50g/m^2
Potassium Nitrate*	Ponds	3mg/L
Sodium silicate	Ponds	0.2mg/L
Benz alkonium chloride	Hatchery	100mg/L
Formalin	Production Ponds and Hatchery	Maximum 20mg/L (Production Ponds), 30mg/L (Hatchery)
Iodine	Hatchery	15 mg/L
Sodium hypochlorite	Ponds, Hatchery and Processing	100mg/L
Sodium Nifurstyerenate	Hatchery	5 mg/L
Sodium Thiosulphate	Hatchery	30mg/L
Sodium metabisulphate	Processing	1%

<table>
<tr><td>WT29</td><td>Formalin is permitted to be added to Production Ponds only where:
a) Alternate options for treatment have been deemed inappropriate or ineffective; and
b) Pond Depth is reduced to 1.0 m for treatment period, then refilled to 1.5 m post treatment; and
c) Treated water is held within production ponds for a minimum period of 72 hrs following application; and
d) Treated ponds are monitored for Dissolved Oxygen concentrations at a minimum frequency of one (1) sample per 2 hours during treatment; and
e) Discharge of treated pond water to the settlement pond system only occurs when DO concentrations reach a 24-hr average of 4 mg/L DO, with a peak value of at least 6 mg/L DO; and
f) The application must comply with the application limits specified in ‘Table 7 – Concurrent application of Formalin’

Table 7 – Concurrent Application of Formalin
<table><tr><th>Stage</th><th>Formalin Application Concentration</th><th>Number of Production Ponds permitted to be administered per day</th></tr><tr><td rowspan="2">Stage 1</td><td>10mg/L</td><td>2</td></tr><tr><td>20mg/L</td><td>1</td></tr><tr><td rowspan="2">Stage 2</td><td>10mg/L</td><td>3</td></tr><tr><td>20mg/L</td><td>1</td></tr><tr><td rowspan="2">Stage 3</td><td>10mg/L</td><td>3</td></tr><tr><td>20mg/L</td><td>1</td></tr><tr><td rowspan="2">Stage 4</td><td>10mg/L</td><td>7</td></tr><tr><td>20mg/L</td><td>3</td></tr></table></td></tr>
<tr><td>WT30</td><td>The application of formalin in accordance with condition WT29 is subject to the following:
a) Formalin is permitted to be applied to ponds in all stages concurrently; and
b) The application of formalin must not exceed the maximum number of ponds permitted to have formalin administered for that application rate in each stage in a day; and
c) The application rates are exclusive for each stage.

Note: For example, the maximum number of ponds authorised to have formalin administered at 10mg/L application rate when all four stages are operational is 15. The application rates are exclusive, for example, if administering to 2 ponds at 10mg/L in Stage 1, no additional ponds are permitted to have formalin administered at either 10mg/L or 20mg/L in Stage 1 on that day.</td></tr>
<tr><td>WT31</td><td>Records must be kept demonstrating compliance with each component of condition WT29 and WT30.</td></tr>
<tr><td>WT32</td><td>Records of monitoring data required for WT29 and WT30 much be kept and submitted at least quarterly while formalin is in use within production ponds.</td></tr>
<tr><td>WT33</td><td>Where the maximum number of ponds for more than one (1) stage is being utilised in accordance with WT30, Release Point W1 must be monitored for Formalin in accordance with the following:
a) Weekly for four (4) weeks; and
b) Commencing seven (7) days after the release of water containing formalin from any pond.</td></tr>
</table>

Agency interest: Land	
Condition number	**Condition**
L1	Contaminants from the **activity** must not be released to **land.**
L2	Treatment and management of **acid sulfate soils** must comply with the latest edition of the Queensland Acid Sulfate Soil Technical Manual.
L3	Dispersive soils shall not be used in construction of **pond** and channel walls.

Definitions

Acid sulfate soils means a soil, sand, mud or clay containing significant levels of pyrite (iron sulphide), which on exposure to oxidising conditions results in, or has the potential to result in, the generation of sulphuric acid in quantities greater than the inherent buffer capacity of the soil.

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 Science or its successors or predecessors.

Affected water means water that has come into contact with **diseased**, or potentially **diseased**, organisms.

Alert levels mean tiers in a hierarchy of increasing environmental risk and are defined by **trigger values**. Three **alert levels** (low, moderate, and high) are typically used in a management action framework to indicate adverse conditions and guide management responses that aim to prevent and minimise **environmental harm**.

Annual daily mean is calculated as the yearly sum of Daily Release Volume divided by the number of days in that calendar year.

Annual Mass Load is calculated as follows:

> Annual Mass Load TN (kg) = Yearly sum of Daily Release Volume (ML) x Yearly Long Term **Mean** TN Concentration (**mg/L**)
>
> Annual Mass Load TP (kg) = Yearly sum of Daily Release Volume (ML) x Yearly Long Term **Mean** TP Concentration (**mg/L**)
>
> *Note: calculations should be undertaken on a rolling basis based on nutrient sampling during periods of release.*
>
> **OR** can be calculated as the sum of the **Annual Mass Load** minus a **nutrient offset** approved by the **Administering authority** in writing**.**

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

Commercial place means a place, or part of a place, used as a workplace, an office or for business or commercial purposes.

Day means any continuous 24 hour period.

Disease as defined in Schedule 4 of the *Biosecurity Act 2014*.

Environmental complaints means an expression of dissatisfaction, concern or report, whether written or verbal, about the **activity** and/or its impact on the environment.

Environmental nuisance as defined in Chapter 1 of the *Environmental Protection Act 1994*.

Environmental harm as defined in Chapter 1 of the *Environmental Protection Act 1994*

Environmental value as defined in Chapter 1 of the *Environmental Protection Act 1994*.

Financial year means a period of one year beginning on 1 July.

Groundwater means water that occurs naturally in, or is introduced artificially into, an aquifer.

Harvest means the period during which ponds are being drained to gather prawns.

Harvest Monitoring 1 means the point located at Latitude -20.19027, Longitude 148.42163

Harvest Monitoring 2 means the point located at Latitude -20.19035, Longitude 148.42118

Land does not include **waters**.

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

mg/L means milligrams per litre.

µg/L means micrograms per litre.

Mean means the arithmetic mean obtained by adding several quantities together and dividing the sum by the number of quantities. For example, the arithmetic mean of 1, 5, 2, 8 is 4.

Minimum means that the measured valued of the quality characteristic or contaminant must not be less than the release limit stated.

NATA means National Association of Testing Authorities.

Objectionable Matter includes foam and algae in excess of the levels founds in the nearby receiving environment.

Pond includes a tank, channel or containment structure:

a) used to hold, or cultivate, freshwater, marine or estuarine organisms; or
b) used for the storage, use or treatment of aquaculture waters.

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, monitoring data, analysis results, monitoring reports and monitoring programs required under a condition of this authority.

Release Point W1 means the Discharge Structure to an unnamed tributary of Eden Lassie Creek located at Latitude -20.19193, Longitude 148.42114.

Secondary containment system means a system designed, installed and operated to prevent any release of contaminants from the system, or containers within the system, to **land**, **groundwater**, or surface **waters**.

Sensitive place includes places and parts of places as follows:

a) a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or

b) a motel, hotel or hostel; or

c) a kindergarten, school, university or other educational institution; or

d) a medical centre or hospital; or

e) a protected area under the *Nature Conservation Act 1992*, the *Marine Parks Act 2004* or a World Heritage Area; or

f) a public park or garden; or

g) for noise, a place defined as a sensitive receptor for the purposes of the Environmental Protection (Noise) Policy 2019.

Stage 1 means ponds identified as 'Existing Stage 1' on plan 'Site General Arrangement Stage 4 Inclusive' prepared by De Costi Seafoods, dated 22/07/20, reference TIT-P-ST4-201, revision B.

Stage 2 means ponds identified as 'Existing Stage 2' on plan 'Site General Arrangement Stage 4 Inclusive' prepared by De Costi Seafoods, dated 22/07/20, reference TIT-P-ST4-201, revision B.

Stage 3 means ponds identified as 'Stage 3' on plan 'Site General Arrangement Stage 4 Inclusive' prepared by De Costi Seafoods, dated 22/07/20, reference TIT-P-ST4-201, revision B.

Stage 4 means ponds identified as 'Stage 4' on plan 'Site General Arrangement Stage 4 Inclusive' prepared by De Costi Seafoods, dated 22/07/20, reference TIT-P-ST4-201, revision B.

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**.**

Trigger values are physicochemical, parameter-specific measurement values used to indicate a condition where an **environmental value** or **sensitive receptor** may be at low, moderate or high risk, or some other risk-related indicator.

Nutrient offset means projects in accordance with the *Point Source Water Quality Offsets Policy 2019* or more recent additions or supplements to the document that become available, as agreed to in writing by the **administering authority**.

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.

WaTERS is the department's Water Tracking and Electronic Reporting System (see https://www.business.qld.gov.au/industries/mining-energy-water/water/maps-data/submit-data).

Appendix 1 – Attached Plans

The following plans referenced in this permit are attached:

1. 'Site Layout' prepared by Capital Consulting Engineers, dated 26/03/20, reference TIT-P-ST4-501, revision E.
2. 'Site General Arrangement Stage 4 Inclusive' prepared by De Costi Seafoods, dated 22/07/20, reference TIT-P-ST4-201, revision B.

END OF PERMIT