

Permit

Environmental Protection Act 1994

Environmental authority EPPR00978413

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

Environmental authority number: EPPR00978413

Environmental authority takes effect on the day of approval.

The anniversary date of this environmental authority is the same day each year as the take effect date. The payment of the annual fee will be due each year on this day.

Environmental authority holder

Name	Registered address
HAMILTON ISLAND ENTERPRISES LIMITED	1 Front Street HAMILTON ISLAND QLD 4803

Environmentally relevant activity and location details

Environmentally relevant activities	Location
ERA 16 - Extraction and screening activities - 1(a) - Dredging, in a year, 1000t to 10000t of material	Catseye Beach, Lot 8/CP861993
ERA 49 – Boat Maintenance or Repair – Operating, on a commercial basis, a boat maintenance or repair facility for maintaining or repairing hulls, superstructure or mechanical components of boats or seaplanes, or cleaning or maintaining hulls in water at another place on a commercial basis	Lot 8/CP861993
ERA 57 - Regulated Waste Transport - Transporting regulated waste	Adjacent to Lot 8 on CP861993
ERA 63 - Sewage Treatment (1): Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of, (d) more than 4,000 to 10,000 EP.	Lot 8/CP861993

Environmentally relevant activities	Location
ERA 64 - Water treatment - 1(a) - Desalinating, in a day, the following quantity of water, allowing the release of waste only to seawater - 0.5ML to 5ML	Lot 8/CP861993

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).

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:

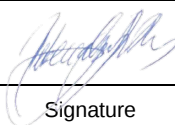
- a) if the authority is for a prescribed ERA and it states that it takes effect on the day nominated by the holder of the authority in a written notice given to the administering authority – on the nominated day; or
- b) if the authority states a day or an event for it to take effect – on the stated 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.

The anniversary day of this environmental authority is the same day each year as the original take effect date unless you apply to change the anniversary day. The payment of the annual fee will be due each year on this day.

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.



Signature

Rebecca Griffiths
Department of Environment and Science
Delegate of the administering authority
Environmental Protection Act 1994

04/12/2023

Date

Enquiries:
Utilities and Government Organisations
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)

Other permits required

This permit only provides an approval under the *Environmental Protection Act 1994*. In order to lawfully operate you may also require permits / approvals from your local government authority, other business units within the department and other State Government agencies prior to commencing any activity at the site. For example, this may include permits / approvals with your local Council (for planning approval), the Department of Transport and Main Roads (to access state controlled roads), the Department of Resources (to clear vegetation), and the Department of Agriculture and Fisheries (to clear marine plants or to obtain a quarry material allocation).

Development Approval

This permit is not a development approval under the *Planning Act 2016*. The conditions of this environmental authority are separate, and in addition to, any conditions that may be on the development approval. If a copy of this environmental authority is attached to a development approval, it is for information only, and may not be current. If you are unsure that you have the most current version of the environmental authority relating to this site please visit <https://apps.des.qld.gov.au/env-authorities/> to access all environmental authorities currently approved.

Conditions of environmental authority

Part 1 – General Conditions

Environmentally relevant activities	Location
ERA 16 - Extraction and screening activities - 1(a) - Dredging, in a year, 1000t to 10000t of material	Catseye Beach, Lot 8/CP861993
ERA 49 – Boat Maintenance or Repair – Operating, on a commercial basis, a boat maintenance or repair facility for maintaining or repairing hulls, superstructure or mechanical components of boats or seaplanes, or cleaning or maintaining hulls in water at another place on a commercial basis	Lot 8/CP861993
ERA 57 - Regulated Waste Transport - Transporting regulated waste	Adjacent to Lot 8 on CP861993
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ERA 64 - Water treatment - 1(a) - Desalinating, in a day, the following quantity of water, allowing the release of waste only to seawater - 0.5ML to 5ML	Lot 8/CP861993

The environmentally relevant activity conducted at the locations as described above must be conducted in accordance with the following conditions of approval.

Agency interest: General	
Condition number	Condition
P1-G1	All reasonable and practicable measures must be taken to prevent or minimise any environmental harm caused, or likely to be caused by the activities .
P1-G2	Unless specifically authorised by a condition of this environmental authority, this environmental authority does not authorise a relevant act which is: (a) an act that causes serious or material environmental harm or an environmental nuisance; or (b) an act that contravenes a noise standard; or (c) a deposit of a contaminant, or release of stormwater run-off, mentioned in section 440ZG of the <i>Environmental Protection Act 1994</i>.

P1-G3	Contravention of conditions Unless specifically authorised by a condition of this environmental authority, details of any contravention of a condition of this environmental authority must: (a) be reported to the administering authority within 24 hours of becoming aware of the contravention; and (b) include the nature and circumstances of the contravention and any immediate actions taken.
P1-G4	As soon as reasonably practicable but no later than 20 business days of a report made under condition P1-G3 (or a longer period agreed to in writing by the administering authority), an investigation must be undertaken to determine: (a) the potential circumstances and actions that may have contributed to the contravention; and (b) reasonable and practicable measures that will be implemented to address the cause of the contravention to prevent future contraventions of this nature.
P1-G5	As soon as reasonably practicable but no later than 20 business days of investigating a contravention under condition P1-G4 (or a longer period agreed to in writing by the administering authority), the reasonable and practicable measures identified in the investigation must be implemented.
P1-G6	The outcome of the investigation carried out under condition P1-G4 and the reasonable and practicable measures implemented under condition P1-G5 must be recorded.
P1-G7	Complaints The following details must be recorded for all complaints received and provided to the administering authority upon request: (a) date and time the complaint was received; and (b) if authorised by the person making the complaint, their name and contact details; and (c) nature and details of the complaint.
P1-G8	As soon as reasonably practicable but no later than 10 business days of receiving a complaint (or a longer period agreed to in writing by the administering authority), an investigation must be undertaken to determine: (a) the potential circumstances and actions on site that may have contributed to the basis of the complaint; and (b) reasonable and practicable measures that will be implemented to address the complaint.
P1-G9	As soon as reasonably practicable but no later than 10 business days of investigating a complaint under condition P1-G8 (or a longer period agreed to in writing by the administering authority), the reasonable and practicable measures identified in the investigation must be implemented.
P1-G10	The outcome of the investigation carried out under condition P1-G8 and the reasonable and practicable measures implemented under condition P1-G9 must be recorded.
P1-G11	Environmental risk management procedures Written procedures must be developed and implemented by an appropriately qualified person that ensure: (a) all potential risks to the environment from the carrying out of the activity are identified

	and assessed, including: (i) during routine operations; and (ii) outside routine operations (e.g., maintenance, start up and shut down); and (iii) during preparation, rehabilitation, and closure; and (iv) in an emergency (e.g., fire, flood or other natural disaster); and (b) for each potential risk identified, any necessary measures to prevent or minimise the potential for environmental harm are implemented; and (c) staff understand their obligations under this environmental authority and the <i>Environmental Protection Act 1994</i>; and (d) environmental risk management procedures are continually reviewed and improved, based on a reasonable risk-management approach.						
P1-G12	Plant and equipment An appropriately qualified person must install, operate, calibrate, and maintain the plant and equipment required to carry out the activity (including monitoring devices) in a proper and effective manner.						
P1-G13	Records of installation, calibration and maintenance carried out under condition P1-G12 must be kept.						
P1-G14	Record keeping Unless otherwise specified by a condition of this environmental authority, records must be: (a) kept for the period outlined in <i>Table 1 – Record keeping requirements</i>; and (b) provided to the administering authority upon request and in the format requested. Table 1 – Record keeping requirements <table border="1"> <tr> <th>Description of records</th><th>Retention requirement</th></tr> <tr> <td>Monitoring results</td><td>Retain for 15 years</td></tr> <tr> <td>All other records</td><td>Retain for 5 years</td></tr> </table>	Description of records	Retention requirement	Monitoring results	Retain for 15 years	All other records	Retain for 5 years
Description of records	Retention requirement						
Monitoring results	Retain for 15 years						
All other records	Retain for 5 years						
P1-G15	Chemical storage Chemicals and fuels in containers of greater than 15 litres must be stored within a secondary containment system.						
P1-G16	Monitoring and sampling All monitoring and sampling required by the conditions of this environmental authority must be carried out, interpreted, and recorded by an appropriately qualified person.						
Agency interest: Air							
Condition number	Condition						
P1-A1	Odours or airborne contaminants from the activity must not cause environmental nuisance to any sensitive place or commercial place .						
Agency interest: Noise							
Condition number	Condition						

P1-N1	Noise generated by the activity must not cause environmental nuisance to any sensitive place or commercial place .
Agency interest: Waste	
Condition number	Condition
P1-W1	All waste generated in carrying out the activity must be lawfully reused, recycled, or lawfully removed to a facility that can lawfully accept the waste.

Conditions of environmental authority

Part 2 - Site specific conditions

Environmentally relevant activity	Location
ERA 16 - Extraction and screening activities - 1(a) - Dredging, in a year, 1000t to 10000t of material	Catseye Beach, Lot 8 Plan CP861993

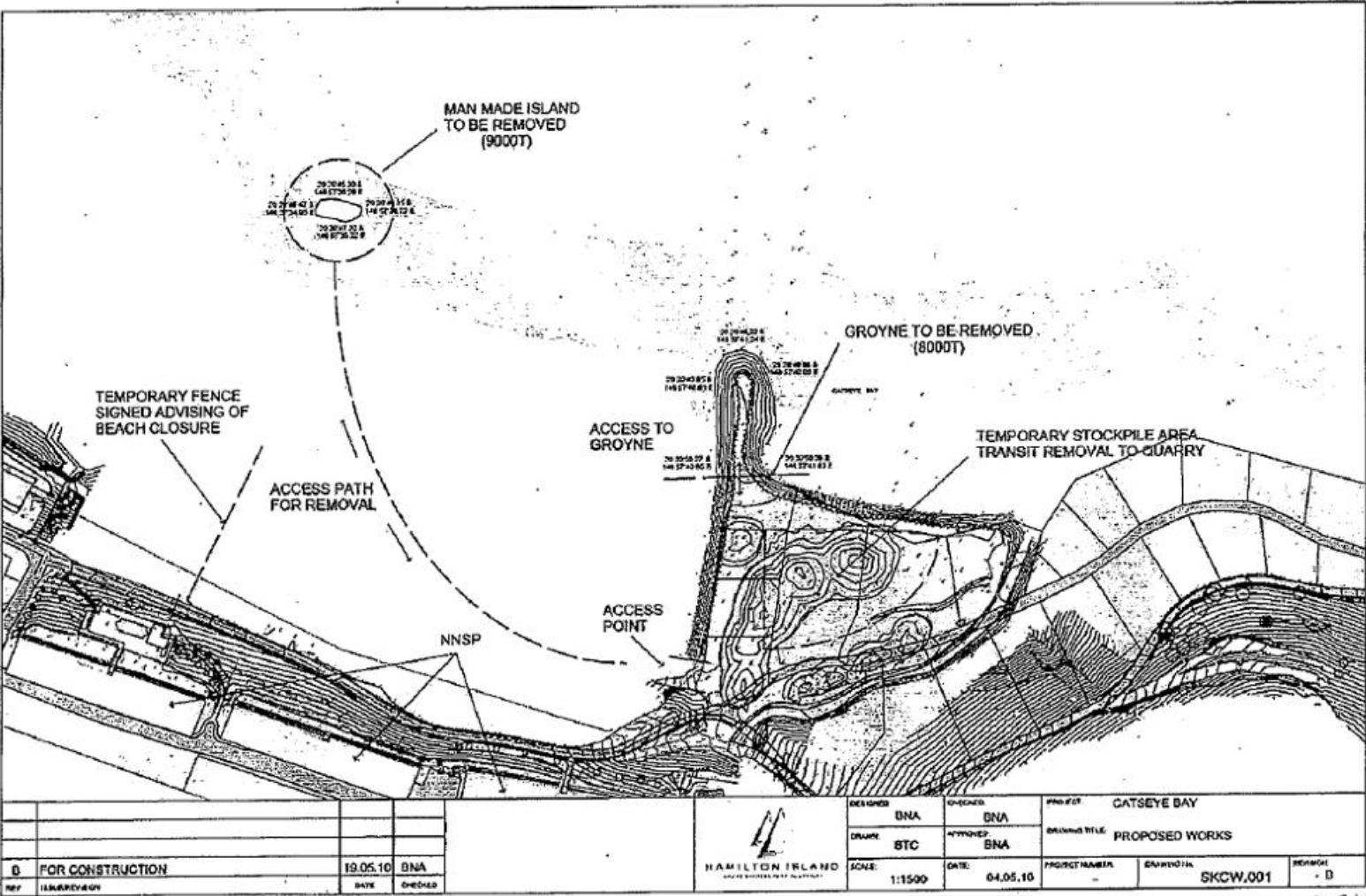
The environmentally relevant activity conducted at the location(s) as described above must be conducted in accordance with the following conditions of approval.

Agency interest: General	
Condition number	Condition
P2-G1	Scope Activities under this environmental authority must be conducted in accordance with the following limitations: dredging of a maximum 20,000 cubic metres of terrestrial material to remove a man-made island Lot 8 Plan CP861993 and groyne as shown on Drawing No. SKCW.001 Rev. B, <i>Appendix 1 – Site Plan</i>.
P2-G2	Access to the beach Only a single entry access point to the beach is permitted, shown as 'Access' on Drawing No. SKCW.001 Rev. B, <i>Appendix 1 – Site Plan</i>.
P2-G3	Acid Sulphate Soils If acid sulphate soils are found to be present through testing of areas subject to excavation in accordance with the requirements of State Planning Policy 2/02, then the works must be managed to prevent release of acidic drain water to any natural waters and comply with procedures outlined in the current version of the Queensland Acid Sulphate Soils Technical Manual Soil Management Guidelines.
P2-G4	Acid sulfate soils must be managed such that contaminants are not directly or indirectly released to any waters. In the event of severe weather events, including but not limited to high rainfall, flooding and cyclone, acid sulfate soils must be managed to ensure these soils and associated contaminated waters are not discharged from the site.
P2-G5	Excluding rock, all excavated material should be placed in a bunded area as shown in Drawing SKCW.001 Revision A., with an impervious base until tested to determine if it contains acid sulfate soils. Should the excavated material contain acid sulfate soils treatment would be required before final placement at the island quarry.
P2-G6	Stockpiling and treatment areas to be located at a minimum of 50m from any surface waters. Stockpiles and treatment areas must be managed as per the <i>Queensland Acid Sulfate Manual</i>. The risks of stockpiling acid sulphate soils are high and should be undertaken as a short term activity (time frames to be implemented as per <i>Queensland Acid Sulfate Technical Manual</i>).

Agency interest: Air																																																												
Condition number	Condition																																																											
P2-A1	Dust Nuisance The release of dust and/or particulate matter resulting from the ERA must not cause an environmental nuisance at any nuisance sensitive or commercial place .																																																											
Agency interest: Noise																																																												
Condition number	Condition																																																											
P2-N1	Noise from the activity must not exceed the levels identified in <i>Table 2 – Noise limits</i> when measured in accordance with the associated monitoring requirements. Table 2 – Noise limits <table><tr><th rowspan="3">Noise level dB(A) measured as</th><th colspan="3">Monday to Saturday</th><th colspan="3">Sundays and public holidays</th></tr><tr><th>7am – 6pm</th><th>6pm – 10pm</th><th>10pm – 7am</th><th>9am – 6pm</th><th>6pm – 10pm</th><th>10pm – 9am</th></tr><tr><th colspan="6">Noise measured at a ‘Noise sensitive place’</th></tr><tr><td>LA 10, adj, 10 mins</td><td>Bkg + 5</td><td>Bkg + 5</td><td>Bkg + 0</td><td>Bkg + 5</td><td>Bkg + 5</td><td>Bkg + 0</td></tr><tr><td>LA 1, adj, 10 mins</td><td>Bkg + 10</td><td>Bkg + 10</td><td>Bkg + 5</td><td>Bkg + 10</td><td>Bkg + 10</td><td>Bkg + 5</td></tr><tr><th></th><th colspan="6">Noise measured at a Commercial place</th></tr><tr><td>LA 10, adj, 10 mins</td><td>Bkg + 10</td><td>Bkg + 10</td><td>Bkg + 5</td><td>Bkg + 10</td><td>Bkg + 10</td><td>Bkg + 5</td></tr><tr><td>LA 1, adj, 10 mins</td><td>Bkg + 15</td><td>Bkg + 15</td><td>Bkg + 10</td><td>Bkg + 15</td><td>Bkg + 15</td><td>Bkg + 10</td></tr></table>						Noise level dB(A) measured as	Monday to Saturday			Sundays and public holidays			7am – 6pm	6pm – 10pm	10pm – 7am	9am – 6pm	6pm – 10pm	10pm – 9am	Noise measured at a ‘Noise sensitive place’						LA 10, adj, 10 mins	Bkg + 5	Bkg + 5	Bkg + 0	Bkg + 5	Bkg + 5	Bkg + 0	LA 1, adj, 10 mins	Bkg + 10	Bkg + 10	Bkg + 5	Bkg + 10	Bkg + 10	Bkg + 5		Noise measured at a Commercial place						LA 10, adj, 10 mins	Bkg + 10	Bkg + 10	Bkg + 5	Bkg + 10	Bkg + 10	Bkg + 5	LA 1, adj, 10 mins	Bkg + 15	Bkg + 15	Bkg + 10	Bkg + 15	Bkg + 15	Bkg + 10
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LA 1, adj, 10 mins	Bkg + 15	Bkg + 15	Bkg + 10	Bkg + 15	Bkg + 15	Bkg + 10																																																						
P2-N2	Noise monitoring When required by the administering authority , noise monitoring must be undertaken in accordance with the associated monitoring requirements of <i>Table 2 – Noise limits</i> , and the results notified within 14 days to the administering authority . Monitoring must include: (a) airblast overpressure (dB (Lin) Peak); (b) LA 10, adj, 10 mins ; (c) LA 1, adj, 10 mins ; (d) the level and frequency of occurrence of impulsive or tonal noise; (e) atmospheric conditions including wind speed and direction; (f) effects due to extraneous factors such as traffic noise; and (g) location, date and time of recording.																																																											

P2-N3	All monitoring of noise emissions from the activity must be undertaken in accordance with the latest edition of the <i>Noise measurement manual</i> (available on the Queensland government website), the relevant Australian Standard and the Environmental Protection Regulation 2019 (Chapter 5, Part 4).
Agency interest: Land	
Condition number	Condition
P2-L1	Contaminants must not be released to land .

Appendix 1 – Site Plan



Part 3 – Site specific conditions

Environmentally relevant activity	Location
ERA 49 – Boat Maintenance or Repair – Operating, on a commercial basis, a boat maintenance or repair facility for maintaining or repairing hulls, superstructure or mechanical components of boats or seaplanes, or cleaning or maintaining hulls in water at another place on a commercial basis	Lot 8 Plan CP861993

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

Agency interest: Air	
Condition number	Condition
P3-A1	Dust nuisance The release of dust and/or particulate matter resulting from the ERA must not cause an environmental nuisance at any nuisance sensitive or commercial place .
P3-A2	Dust and particulate matter emissions from the activity must not exceed the following concentrations at any sensitive place or commercial place : (a) dust deposition of 120 milligrams per square metre per day , averaged over 30 days , when monitored in accordance with the latest edition of Australian Standard AS/NZS 3580.10.1 <i>Methods for sampling and analysis of ambient air, Method 10.1: Determination of particulate matter – Deposited matter – Gravimetric method</i> ; or (b) a concentration of particulate matter with an aerodynamic diameter of less than 10 micrometre (µm) (PM ₁₀) suspended in the atmosphere of 150 micrograms per cubic metre over a 24-hour averaging time, when monitored in accordance with the latest edition of the relevant Australian Standards.
Agency interest: Land	
Condition number	Condition
P3-L1	Contaminants must not be released to land .
P3-L2	Spillage of all chemicals and fuels must be contained within an on-site containment system and controlled in a manner that prevents environmental harm . <i>NOTE: All petroleum product storage's must be designed, constructed and maintained in accordance with AS 1940 – Storage and Handling of Flammable and Combustible Liquids.</i>
P3-L3	Any spills of wastes, contaminants or other materials must be cleaned up as quickly as practicable. Spills must not be cleaned up by hosing, sweeping or otherwise releasing such wastes, contaminants or other materials to any stormwater drainage system, roadside gutter or waters .
Agency interest: Water	

Condition number	Condition
P3-WT1	Release to waters Contaminants must not be released from the site to any waters or the bed and banks of any waters .

Part 4 – Site specific conditions

Environmentally relevant activity	Location
ERA 57 – Regulated Waste Transport – Transporting regulated waste	Adjacent to Lot 8 Plan CP861993

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

Agency interest: Noise	
Condition number	Condition
P4-N1	When requested and within the time frame specified by the administering authority, noise monitoring must be undertaken to investigate any environmental complaint of noise nuisance, and the results notified within 7 days to the administering authority. Monitoring must include: (a) L_{Aeq}, adj, 15min; (b) L_{A10}, adj, 15 min; (c) L_{A1}, adj, 15min; (d) The level and frequency of occurrence of impulsive or tonal noise; (e) Atmospheric conditions including wind speed and direction; (f) Effects due to extraneous factors such as traffic noise; and (g) Location, date and time of recording.
P4-N2	All monitoring of noise emissions from the activity must be undertaken in accordance with the latest edition of the <i>Noise measurement manual</i> (available on the Queensland government website), the relevant Australian Standard and the Environmental Protection Regulation 2019 (Chapter 5, Part 4).
Agency interest: Waste	
Condition number	Condition
P4-W1	Regulated waste must be handled and transferred in a proper and efficient manner to prevent any leakage or spillage of waste.
P4-W2	Wastes must not be stored, transferred or disposed contrary to any condition of this environmental authority.
P4-W3	Records of all regulated waste must be kept detailing the following information; (a) date of pickup of waste; (b) description of waste; (c) quantity of waste; (d) origin of the waste; and

	(e) destination of the waste
P4-W4	Nightsoil may only be transported in the galvanised steel containers as specified in <i>Hamilton Island Enterprises Ltd Regulated Waste Transportation Development Application</i> authored by <i>McCollum Environmental Management Services (Final Version 18 May 2011)</i> .
P4-W5	The permit holder must not cause or permit incompatible wastes to be mixed in the same container.
P4-W6	All nightsoil transport skips must be roofed, rubber sealed and secured shut for the duration of transport to the receiving landfill.
Agency interest: Land	
Condition number	Condition
P4-L1	Contaminants must not be released to land .
Agency interest: Water	
Condition number	Condition
P4-WT1	The maintenance and cleaning of vehicles, transport skips and any other equipment must be carried out in areas where contaminants cannot be released to any waters .
P4-WT2	The holder of this permit must comply with the conditions of Registration Certificate 900004215 issued by Maritime Safety Queensland under the <i>Marine Safety Queensland Act 2002</i> in regard to management and operation of the barge during adverse or extreme environmental conditions.
P4-WT3	Contaminants must not be released to waters .

Part 5 – Site specific conditions

Environmentally relevant activity	Location
ERA 63 - Sewage Treatment (1): Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of, (d) more than 4,000 to 10,000 EP.	Lot 8 Plan CP861993

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

Agency interest: General	
Condition number	Condition
P5-G1	Total daily peak design capacity must not exceed 1,750kL/day.
P5-G2	Daily inflows into the sewage treatment plant must not exceed 5,250kL/day on any day.
P5-G3	An Annual Monitoring Report must be prepared and submitted to the administering authority by 30 November each year, for the preceding financial year.
P5-G4	Unless otherwise authorised in writing by the administering authority, all laboratory analyses required under this environmental authority must be carried out by a laboratory that has National Association of Testing Authorities (NATA) accreditation for such analyses. The only exception to this condition is for <i>in situ</i> monitoring of pH, Ammonia, Dissolved Oxygen, Total Chlorine, Free Chlorine Residual and Electrical Conductivity.
P5-G5	When all reasonable and practicable steps have been undertaken to send samples to a NATA accredited laboratory in accordance with condition P5-G4, in response to an extreme event or where a NATA accredited laboratory cannot accept samples for analysis as the accredited laboratory is closed for business: (a) monitoring of enterococci may be undertaken in situ, and follow up samples must be analysed by a laboratory that has NATA certification, or an equivalent certification, as soon as practicable when access to the laboratory is available, and (b) BOD₅ must be analysed by a laboratory that has NATA certification, or an equivalent certification as soon as practicable when access to the laboratory is available.
P5-G6	The use of an alternative location for analyses of the parameters specified in condition P5-G5 must be notified within 7 days to the administering authority .
Agency interest: Land	
Condition number	Condition
P5-L1	Contaminants generated by the activity must only be released to the effluent disposal area where the following requirements are complied with:

- (a) the release limits for each quality characteristic are complied with at the **monitoring** locations as specified in *Table 3 – Contaminant limits for releases to land*; and
- (b) releases are **monitored** at all **monitoring** locations and at the minimum **monitoring** frequency for each quality characteristic specified in *Table 3 – Contaminant limits for releases to land*.

Table 3 – Contaminant limits for releases to land

Monitoring location	Quality characteristic (units)	Release limits			Monitoring Frequency
		Minimum	Mean	Maximum	
STP treated effluent storage tank	Irrigation rate (mm/day)	-	-	2	Daily
	Escherichia coli (E.coli) (cfu/100mL)	-	-	<10	Weekly
	pH (pH units)	6	-	8.5	Weekly
	Total Nitrogen (mg/L as N)	-	9.2	10	Monthly
	Total Phosphorus (mg/L as P)		1.9	2.0	Monthly
	Electrical conductivity (µS/cm)	-	-	3,000	Daily

Associated requirements:

- (a) A single irrigation event and/or daily application must not exceed 2 mm of irrigation regardless of weather, and must be evenly distributed across the **effluent disposal area**; and
- (b) The **effluent disposal area** must be maintained with an appropriate crop in a **viable state**; and
- (c) **Monitoring** must be in accordance with the **administering authority's** latest Water Quality Sampling Manual and all **monitoring** devices must be effectively calibrated and maintained; and
- (d) Mean calculations required must be taken as a Long-Term Rolling Limit, meaning a limit applied to consecutive samples taken over a 12-month period where consecutive samples are taken at the minimum frequency specified in *Table 3 – Contaminant limits for releases to land*; and
- (e) Releases of treated sewage **effluent** must not occur outside of the designated **effluent disposal area** indicated on **Appendix 2 – Site Plan**; and
- (f) **Monitoring** must be undertaken when treated sewage is being irrigated, unless irrigation has ceased for longer than the relevant parameters specified minimum frequency (e.g., if TSS was only required to be **monitored** once a week, then a TSS sample would not be required after the first week following cessation of the release; and

	(g) Indicators for TN and TP are recommended to be done as grab samples.																										
P5-L2	The allocated land area for treated sewage irrigation (the effluent disposal area) for Stage 1 must be at least 60.7ha in size.																										
P5-L3	An additional 500m ² of land must be made available for each m ³ of treated effluent produced, up to a maximum of 80ha in total.																										
P5-L4	The sewage influent volume of the sewage treatment plant must be measured daily.																										
P5-L5	The irrigation of effluent must be carried out in a manner such that: (a) vegetation is not damaged; (b) soil erosion and soil structure damage are avoided; (c) there is no surface ponding of effluent ; (d) percolation of effluent beyond the plant root zone is minimised; (e) the capacity of the land to assimilate nitrogen, phosphorus, salts, organic matter as measured by oxygen demand and water is not exceeded; and (f) the quality of ground water is not adversely affected.																										
P5-L6	Wet weather storage, with a minimum volume of 2.18ML must be maintained on the site for the storage of effluent .																										
P5-L7	All reasonable and practical measures must be taken to drain the wet weather storage when the wet weather storage is in use.																										
Agency interest: Water																											
Condition number	Condition																										
P5-WT1	Treated sewage effluent may be released to waters only when no more effluent is able to be stored in wet weather storages, and further irrigation of treated sewage effluent to land would otherwise be in excess of the maximum irrigation rate as per condition P5-L1.																										
P5-WT2	The only contaminants to be released to surface waters are treated sewage effluent from the sewage treatment plant to waters described as Dent Passage, Coral Sea through release point W1 in accordance with <i>Table 4 - Surface water release limits</i> and the associated requirements. Table 4 - Surface water release limits <table><tr><th>Release Point Name</th><th>Quality characteristic (units)</th><th>Minimum</th><th>Long-term 50th percentile</th><th>Long term 80th percentile</th><th>Long-term 90th percentile</th><th>Maximum</th></tr><tr><td rowspan="3"></td><td>BOD₅ (mg/L)</td><td>-</td><td>-</td><td>7.5</td><td>-</td><td>15</td></tr><tr><td>Daily Volume (L)</td><td>-</td><td>-</td><td>-</td><td>-</td><td>Monitor only</td></tr><tr><td>Total Suspended</td><td>-</td><td>-</td><td>10</td><td>-</td><td>20</td></tr></table>	Release Point Name	Quality characteristic (units)	Minimum	Long-term 50th percentile	Long term 80 th percentile	Long-term 90 th percentile	Maximum		BOD ₅ (mg/L)	-	-	7.5	-	15	Daily Volume (L)	-	-	-	-	Monitor only	Total Suspended	-	-	10	-	20
Release Point Name	Quality characteristic (units)	Minimum	Long-term 50th percentile	Long term 80 th percentile	Long-term 90 th percentile	Maximum																					
	BOD ₅ (mg/L)	-	-	7.5	-	15																					
	Daily Volume (L)	-	-	-	-	Monitor only																					
	Total Suspended	-	-	10	-	20																					

W1	Solids (mg/L)					
	Total Nitrogen (mg/L as N)	-	3.0	-	5.0	10
	Ammonia (mg/L as N)	-	-	-	-	1.0
	Total Phosphorus (mg/L as P)	-	0.3	-	1.0	2.0
	pH (pH units)	6.5	-	-	-	8.5
	Dissolved Oxygen (mg/L)	2.0	-	-	-	-
	Enterococci (cfu/100mL)	-	-	-	-	<200cfu/100mL
	Free Chlorine Residual (mg/L)	-	-	-	-	0.7
	Total Chlorine (mg/L)	-	-	-	-	Monitor only
	Associated requirements 1. Release point W1 is identified as the outfall to Dent Passage, Coral Sea, as per <i>Appendix 2 – Site Plan</i>, which is located at E 703183.454, N 7747919.783, Zone 55. 2. Indicators for TN and TP must be done as 24 hour composite samples. 3. Sampling must be in accordance with the Monitoring and Sampling Manual and all monitoring devices must be effectively calibrated and maintained. 4. Monitoring must be undertaken during a release. 5. Samples must be representative of the release.					
P5-WT3	The outfall pipeline for release point W1 must be constructed and maintained in accordance with the following specifications: (a) 250m in length; (b) a hydraulic capacity of 260 L/s; and (c) the outfall must always be submerged to a depth of at least at least 20 metres below Low Water Datum.					

P5-WT4	Regular investigations of additional treated water reuse measures and/or treatment technologies must be undertaken to further reduce the release of contaminants to waters . The investigations must inform a Contaminant and Release Reduction Strategy in accordance with following objectives: (a) implementation of cost-effective additional or alternative treatment technologies; and (b) implementation of cost-effective reuse options.
P5-WT5	A report on the outcomes of the investigation and the current level of water reuse, including justification where reuse options are not adopted, must be prepared and provided to the administering authority biennially.
P5-WT6	The information recorded under condition P5-WT2 must be submitted to the administering authority upon request in the specified electronic format via WaTERS .

Appendix 2 – Site Plan



Part 6 – Site specific conditions

Environmentally relevant activity	Location
ERA 64 – Water treatment – 1(a) – Desalinating, in a day, the following quantity of water, allowing the release of waste only to seawater – 0.5ML to 5ML	Lot 8/CP861993

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

Agency interest: Air	
Condition number	Condition
P6-A1	Dust nuisance The release of dust and/or particulate matter resulting from the activity must not cause an environmental nuisance at any dust sensitive place .
Agency interest: Noise	
Condition number	Condition
P6-N1	Noise monitoring When requested by the administering authority , noise monitoring must be undertaken to investigate any environmental complaint of noise nuisance, and the results notified within 14 days to the administering authority . Monitoring must include: (a) L_A 10, adj, 10 mins; (b) L_A 1, adj, 10 mins; (c) the level and frequency of occurrence of impulsive or tonal noise; (d) atmospheric conditions including wind speed and direction; (e) effects due to extraneous factors such as traffic noise; and (f) location, date and time of recording.
P6-N2	All monitoring of noise emissions from the activity must be undertaken in accordance with the latest edition of the <i>Noise measurement manual</i> (available on the Queensland government website), the relevant Australian Standard and the Environmental Protection Regulation 2019 (Chapter 5, Part 4).
Agency interest: Land	
Condition number	Condition
P6-L1	Contaminants must not be released to land .

Agency interest: Water																			
Condition number	Condition																		
P6-WT1	Monitoring Monitoring must be undertaken, and records kept of contaminant releases to waters from the discharge location for the parameters and not less frequently than specified in <i>Table 5 – Surface water release limits</i>. All determinations of the quality of contaminants released must be: (a) made in accordance with methods prescribed in the latest edition of the Environmental Protection Agency Water Quality Sampling Manual; and (b) carried out on samples that are representative of the discharge. Table 5 – Surface water release limits <table border="1"> <thead> <tr> <th rowspan="2">Monitoring point</th><th rowspan="2">Discharge location</th><th rowspan="2">Quality characteristics</th><th colspan="2">Release limit</th><th rowspan="2">Monitoring Frequency</th></tr> <tr> <th>Minimum</th><th>Maximum</th></tr> </thead> <tbody> <tr> <td>Prior to release</td><td>W1 on site map (see Appendix 3)</td><td>Conductivity</td><td>-</td><td>85,000 µS/cm</td><td>3 monthly</td></tr> </tbody> </table>					Monitoring point	Discharge location	Quality characteristics	Release limit		Monitoring Frequency	Minimum	Maximum	Prior to release	W1 on site map (see Appendix 3)	Conductivity	-	85,000 µS/cm	3 monthly
Monitoring point	Discharge location	Quality characteristics	Release limit		Monitoring Frequency														
			Minimum	Maximum															
Prior to release	W1 on site map (see Appendix 3)	Conductivity	-	85,000 µS/cm	3 monthly														
P6-WT2	Release to waters Contaminants must only be released to waters from the discharge location and in compliance with the release limits listed in <i>Table 5 – Surface water release limits</i>. Discharge Location W1 – namely release of saline waste waters from the water treatment plant to Dent Passage at W1 (see <i>Appendix 3 – Site Plan</i>, discharge point water treatment plant).																		
P6-WT3	The daily volume of contaminants released to waters must be determined or estimated by an appropriate method, for example a flow meter, and records kept of such determinations and estimates.																		
P6-WT4	Pond conditions All ponds used for the storage or treatment of contaminants, sewage or wastes at or on the site must be constructed, installed and maintained: (a) so as to minimise the likelihood of any release of effluent through the bed or banks of the pond to any waters (including ground water); (b) so that a freeboard of not less than 0.5 metres is maintained at all times, except in emergencies; and (c) so as to ensure the stability of the ponds' construction.																		

Appendix 3 – Site Plan



END OF CONDITIONS

Definitions

Where a word or phrase in this document is defined in this definitions section or within the document, it has its corresponding meaning. Where a word or phrase in this document is not defined in this definitions section, it has the meaning given to it in (in order of priority):

- the *Environmental Protection Act 1994* (EP Act), its regulations or its environmental protection policies;
- the *Acts Interpretation Act 1954*;
- the Macquarie Dictionary (taking account of the context in which the word or phrase is used in this document).

For example, environmental value, environmental harm, environmental nuisance, material environmental harm, serious environmental harm and relevant act are defined in the EP Act and groundwater is defined in the Environmental Protection Regulation 2019.

Defined words or phrases in the singular include the plural and vice versa.

Activity means the environmentally relevant activity(s) to which the environmental authority relates.

Administering authority means the Chief Executive administering the *Environmental Protection Act 1994*.

Appropriately qualified person means a **person** or persons who has professional qualifications, training, skills and experience relevant to the EA requirements and can give authoritative assessment, advice and analysis in relation to the EA requirements using the relevant protocols, standards, methods and/or literature.

BOD₅ means the 5-day biochemical oxygen demand determined using standard tests (e.g., those used by **NATA** laboratories). This test is not inhibited for nitrification, otherwise would be referred to as “carbonaceous” BOD.

cfu means colony forming unit.

Composite samples mean taking one sub sample of equal volume every 8 hours over 24 hours in a **day** to make a single sample.

Note: composite sampling includes the use of an automatic sampler as well as a portable sampler.

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

Daily peak design capacity means the volume, in litres, of the average dry weather flow of sewage that can be treated at the works in a **day**.

Day means any 24-hour period of a calendar day.

Dust sensitive place means -

- (a) a dwelling, mobile home or caravan park, residential marina or another residential place; a motel, hotel or hostel;
- (b) a kindergarten, school, university or other educational institution; a medical centre or hospital,
- (c) a protected area;
- (d) a park or gardens; or
- (e) a place used as an office or for business or commercial purposes and includes the curtilage of any such place; or
- (f) **Environmental nuisance** as defined in Chapter 1 of the *Environmental Protection Act 1994*.

Effluent means the liquid fraction of treated sewage.

Effluent disposal area means the effluent disposal area identified in *Appendix 2 – Site Plan*.

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

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

Extreme event means a significant weather event that results in prevention of access to a **NATA** laboratory for the sampling requirements of this environmental authority.

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

Impervious means a barrier with an in-situ permeability (K) of less than 10^{-9} ms^{-1} .

L_A 10, adj, 10 mins means the A-weighted sound pressure level, (adjusted for tonal character and impulsiveness of the sound) exceeded for 10% of any 10 minute measurement period, using Fast response.

L_A 1, adj, 10 mins means the A-weighted sound pressure level, (adjusted for tonal character and impulsiveness of the sound) exceeded for 1% of any 10 minute measurement period, using Fast response.

Land means land excluding **waters** and the atmosphere. For clarity, 'land' does not include: **impervious** surfaces, or within **secondary containment systems**.

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

mg/L means milligrams per litre.

Monitor, monitored and monitoring means monitoring the impact of an **activity** on the receiving environment and includes analysing, assessing, examining, inspecting, measuring, modelling or reporting any of the following matters—

- (a) the quantity, quality, characteristics, timing and variability of the release of any contaminant; and
- (b) the effectiveness of any control measure; and
- (c) the characteristics of, and impact on, the receiving environment; and
- (d) the effectiveness of remedial or rehabilitation **measures** (if applicable to the relevant **monitoring** requirement).

NATA means National Association of Testing Authorities.

Person means an individual and a corporation, as per section 32D of the *Acts Interpretation Act 1954*.

Records include any written procedures, plans, monitoring results, and monitoring programs required under a condition of this environmental authority.

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

Sensitive place includes any of the following places:

- (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 refers to treatment of sewage where the sewage influent volume of the sewage treatment plant is less than 1,214kL/day.

Stage 2 refers to ongoing treatment of sewage from the first **day** that sewage influent volume of the sewage treatment plant exceeds 1,214kL/day.

Surface water means water other than **groundwater**.

The site means the area of land identified as being approved for the carrying out of the activity as per this environmental authority.

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.

Viable state means able to live and grow.

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 Wastewater Tracking and Electronic Reporting System, or subsequent updated system, used to submit monitoring data and notify the Queensland Government. It is available at www.waters.des.qld.gov.au or by contacting psd.help@qld.gov.au.

50th percentile means not more than three (3) of the measured values of the quality characteristic are to exceed the stated release limit for any six (6) consecutive samples for a release/monitoring point at any time during the environmental activity(ies) works.

80th percentile means not more than one (1) of the measured values of the quality characteristic is to exceed the stated release limit for any five (5) consecutive samples for a sampling point at any time during the environmental activity(ies) works.

90th percentile means not more than one (1) of the measured values of the quality characteristic is to exceed the stated release limit for any ten (10) consecutive samples for a sampling point at any time during the environmental activity(ies) works.

END OF ENVIRONMENTAL AUTHORITY