Permit[1]

Environmental Protection Act 1994

Environmental authority

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

Permit[1] number: EPPR00190713

Environmental authority takes effect on 13-JAN-2016.

The anniversary date of this environmental authority remains as 15 January. An annual return and the payment of the annual fee will be due each year on this day.

Environmental authority holder(s)

Name	Principal address
CCIG Investments Pty Ltd	PMB 22 MACKAY QLD 4740

Environmentally relevant activity and location details

Environmentally relevant activity	Location(s)
63-(1c) Sewage treatment >1500 to 4000EP	Daydream Island Resort & Spa DAYDREAM ISLAND QLD 4741 - Lot 287 Plan HR1740, Lot 1 HR805863 and Lot 3 HR805863

Additional information for applicants

Environmentally relevant activities

The description of any environmentally relevant activity (ERA) for which an environmental authority is issued is a restatement of the ERA as defined by legislation at the time the approval is issued. Where there is any inconsistency between that description of an ERA and the conditions stated by an environmental authority as to the scale, intensity or manner of carrying out an ERA, then the conditions prevail to the extent of the inconsistency.

An environmental authority authorises the carrying out of an ERA and does not authorise any environmental harm unless a condition stated by the authority 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).

[1] Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation

Contaminated land

It is a requirement of the EP Act that an owner or occupier of land give written notice to the chief executive if they become aware of the following:

- a notifiable activity (as defined in Schedule 3) that is being, or has been, carried out on the land (notice must be given within 20 business days)
- an event involving a hazardous contaminant on the land, or a change in the condition of the contaminated land, that is causing, or is reasonably likely to cause, serious or material environmental harm (notice must be given within 24 hours).

For further information, including the form for giving written notice, refer to the Queensland Government website http://www.qld.gov.au/ (using the search term 'managing contaminated land').

	13-Jan-2016
Signature	Date

James Mackenzie
Department of Environment and Heritage Protection
Delegate of the administering authority
Environmental Protection Act 1994

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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

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

This development approval consists of the following schedules:

Schedule A- Activity
Schedule B –Air
Schedule C- Water
Schedule D- Noise and vibration
Schedule E-Waste
Schedule F - Land
Schedule G- Community

Schedule A- Activity

Prevent and/or minimise likelihood of environmental harm

(A1-1) In carrying out the environmentally relevant activities, the holder must take all reasonable and practicable measures to prevent and/or to minimise the likelihood of environmental harm being caused. Any environmentally relevant activity, that, if carried out incompetently, or negligently, may cause environmental harm, in a manner that could be prevented, shall be carried out in a proper manner in accordance with the conditions of this authority.

NOTE: This authority authorises the environmentally relevant activity. It does not authorise environmental harm unless a condition contained within this authority explicitly authorises that harm. Where there is no condition or the authority is silent on a matter, the lack of a condition or silence shall not be construed as authorising harm.

Maintenance of measures, plant and equipment

(A2-1) The holder must:

- install all measures, plant and equipment necessary to ensure compliance with the conditions of
- this environmentally authority; and
- maintain such measures, plant and equipment in a proper and efficient condition; and operate such measures, plant and equipment in a proper and efficient manner.

Records

(A5-1) Record, compile and keep all monitoring results required by this document and present this information to the administering authority when requested, in a specified format.

(A5-2) Records must be kept for five years, and must include the following information:

- date of pickup of waste;
- description of waste;
- cross reference to relevant waste transport documentation;
- quantity of waste;
- origin of the waste;
- destination of the waste; and
- intended fate of the waste, for example, type of waste treatment, reprocessing or disposal.

NOTE: Records of documents maintained in compliance with a waste tracking system established under the *Environmental Protection Act 1994* or any other law for regulated waste will be deemed to satisfy this condition.

Integrated Environmental Management System (IEMS)

(A9-1) The holder of this integrated environmental authority must develop, implement and maintain an Integrated Environmental Management System (IEMS), which provides for the management by the holder of this integrated environmental authority of the environmental impacts of the carrying out of the environmentally relevant activities.

(A9-2) The holder of this integrated environmental authority must:

a. on or before the 1 March 2003, have completed and implemented the updated Integrated Environmental Management System; and

b. have due regard to that comments made by the administering authority in the finalisation of the Integrated Environmental Management System.

(A9-3) The Integrated Environmental Management System must provide for at least the following functions:

i) The monitoring of releases of contaminants into the environment, for example measurement of the quantities and concentrations of releases of contaminants to the environment as required under-this environmental authority.

ii) The assessment of the environmental impacts of any releases of contaminants into the environment.

iii) The training of all relevant staff in the awareness of environmental issues, including:

   a. The environmental policy of the holder of this integrated environmental authority so that staff are aware of any relevant commitments to environmental management; and

   b. Any relevant environmental objectives and targets so that all staff are aware of the relevant performance objectives and can work towards these; and

   c. Control procedures for routine operations for day to day operational activities to prevent or minimise environmental harm, however occasioned or caused; and

   d. Contingency plans and emergency procedures for non-routine situations to deal with foreseeable risks and hazards including corrective responses to prevent and mitigate environmental harm (including any necessary site rehabilitation); and

   e. Organisational structure and responsibility to ensure that roles, responsibilities and

   f. authorities are appropriately defined to manage environmental issues effectively; and

   g. Effective communication to ensure two-way communication on environmental matters between operational staff and higher management; and

   h. Their obligations in respect of record keeping required under this environmental authority.

iv) The conducting of environmental and energy audits.

v) Waste management plans for waste prevention, treatment and disposal.

vi) A storm water management plan for Daydream Island Resort.

vii) The sustainable disposal of effluent to land.

viii) A bio-solids management plan for the Daydream Island Resort.

ix) Contingency plans and emergency procedures for the operation of the environmentally relevant activities.

(A9-4) The Waste Management Plans referred to in condition A9-3 (v) must address at least the following:

- the estimated quantity and nature of each waste produced;
- the current method of disposal;
- proposed methods of pre-treatment or disposal; and
- proposals for reductions in the quantity of waste produced through waste minimisation and cleaner production.

(A9-5) The Stormwater Management Plan referred to in condition A9-3 (vi) must address at least the following issues:

- prevention of incident storm water and storm water run-off from contacting wastes or contaminants;
- diversion of upstream run-off away from areas containing wastes or contaminants;
- collection, treatment and disposal of contaminated storm water run-off, for example, from waste disposal sites and any short term solid waste storage areas; and
- periodic monitoring of the quality of any storm water released to ensure the measures adopted prevent the discharge of contaminated storm water.

(A9-6) The sustainable disposal of effluent to land (referred to in condition A9-3 (vii)) must be outlined within an Irrigation Management Plan that addresses at least the following:

- the efficient application of effluent to land utilising best practice methods;
- the control of salinity and sodicity in any receiving soils;
- the minimal soil structure degradation;
- the control of nutrient and heavy metal build up in both soils and subsoil from effluent and other sources;
- the prevention of subterranean flows of effluent to waters;
- the prevention of impacts on the groundwater resource through infiltration;
- the prevention of effluent run-off from receiving soils by limiting application rates and/or the use of tail-water dams;
- the prevention of surface pending in areas accessible to the general public;
- the prevention of spraydrift or overspray from effluent disposal areas;
- the prevention of damage to native vegetation;
- maximisation of health and safety protection in relation to effluent handling and irrigation and
- defines the effluent irrigation area.

(A9-7) The Bio-solids Management Plan referred to in condition A9-3 (viii) must address at least the following:

- the estimated quantity and nature of bio-solids produced;
- the current method of disposal;
- any proposed methods of pre-treatment or disposal; and
- the subsequent environmental impacts and corrective and preventive measures taken to prevent and I or minimise the likelihood of environmental harm associated with biosolids.

(A9-8) If biosolids reuse is undertaken then the Bio-solids Management Plan referred to in condition A9-3 (viii) must also meet the following:

- Biosolids must not be stored on the application site.
- All biosolids must be incorporated into soil within 36 hours of receipt at the site.

- Biosolids must be spadeable.
- Land application times and practices according to prevailing weather conditions must be detailed.
- Buffer zones to water bodies must be determined to prevent release to sensitive receiving environments.
- Contaminants must not be directly or indirectly released from any application site to any waters or the bed and banks of any waters.

(A9-9) An up to date copy of the Integrated Environmental Management System must be kept in a location readily accessible to personnel carrying out the activities.

(A9-10) The IEMS must be updated at least once every five years.

(A9-11) The holder of this environmental authority must submit details of any amendment to the Integrated Environmental Management System to the administering authority with the annual return, which follows the enactment of any such amendment.

Notification

(A12-1) The holder of this environmental authority must notify the administering authority as soon as practicable when the release of contaminants is not in accordance with the conditions of this document or any event where environmental harm may be caused.

(A12-2) Written advice of the following information must be provided within fourteen (14) days following any event as identified in condition number (Notification A12-1):

- the location of the event;
- the time of the event;
- the time the holder of the environmental authority became aware of the event;
- the suspected cause of the event;
- a description of the resulting effects of the event;
- actions taken to mitigate any environmental harm and or environmental nuisance caused by the event; and
- proposed actions to prevent a recurrence of the event.

Schedule B - Air

Nuisance

(B1-2) The release of noxious or offensive odours or any other noxious or offensive airborne contaminants resulting from the activity/ies must not cause a nuisance at any odour sensitive place.

Dust nuisance

(B2-1) The release of dust and/or particulate matter resulting from the activity/ies must not cause an environmental nuisance at any dust sensitive place.

Schedule C- Water

Stormwater management

(C5-1) There must be no release of stormwater runoff that has been in contact with any contaminants at the site to any waters, roadside gutter or stormwater drain.

Contaminant and sewage pump station

(C6-1) Contaminant pumping stations must be fitted with stand-by pumps and pump-failure alarms as well as high-level alarms to warn of imminent pump station overflow. All alarms must be able to operate without mains power.

(C6-2) Pump failure alarms must be detectable by the maintenance staff, in such a manner as to facilitate compliance with general environmental duty.

(C6-3) A list of pump stations associated with this schedule of the integrated environmental authority must be maintained by the holder of this integrated environmental authority and be made available to the administrative authority when requested.

Storage pond and tank conditions

(C7-1) All ponds and tanks used for the storage or treatment of contaminants, sewage or wastes at or on the authorised place must be constructed, installed and maintained:

- to minimise the likelihood of any release of effluent through the bed or banks of the pond to any waters (including ground water);
- to ensure a freeboard of not less than 0.5 metres is maintained at all times, except in emergencies; and
- to ensure the stability of the ponds' or tanks' construction.

(C7-2) Suitable banks and/or diversion drains must be installed and maintained to exclude stormwater runoff from entering any ponds or other structures used for the storage or treatment of contaminants or wastes.

Schedule D- Noise and vibrations

Noise nuisance

(D1 1) Noise from activities must not cause an environmental nuisance at any noise affected premises.

Schedule E- Waste

Waste handling

(E5-1) All regulated waste removed from the site must be removed by a person who holds a current authority to transport such waste under the provisions of the *Environmental Protection Act 1994*.

Biosolid wastes

(E6-1) A hardstand area for dewatered sewerage sludge must be developed to achieve the following: ·

- prevention of leachate release to ground water
- diversion of uncontaminated stormwater
- control and capture of incidental stormwater
- capture of and disposal of incidental stormwater to appropriate facilities.

For the use of sewerage sludge (pathogenic waste) as soil conditioner

(E7-1) All dewatered sewage sludge to be disposed of at the licensed place must meet the acceptance criteria specified in table 1 of this schedule.

Schedule E Table 1-Contaminant Acceptance Concentration Thresholds

Contaminant	mg/kg (Dry weight)
Arsenic	20
Cadmium	3
Chromium (total)	100
Copper	100
Lead	150
Mercury	1
Nickel	60
Selenium	5
Zinc	200

(E7-2) Any dewatered sewage sludge must be tested to confirm that the material complies with the respective limits for each quality characteristic specified in Schedule E- Table 1 prior to being utilised at the licensed place. The sample obtained to determine compliance with Schedule E- Table 1 must:

i) Be taken, at least, on a yearly basis.

ii) Be > than 5 litres in volume.

iii) Be comprised of 5 sub samples of approximately equal size.

iv) Sub samples must be obtained by digging holes at equal intervals along the mid height of the heap of material to a depth of approximately 400 mm.

(E7-3) The composting process must be undertaken with sufficient number of turning cycles and generate such heat to achieve pathogen destruction in order to comply with the levels set in Table 2 of this schedule.

(E7-4) To facilitate the destruction of pathogens, all materials being com posted must be subjected to a pasteurising temperature of either:

i) not less than 55°C for three (3) consecutive days; or

ii) between 50°C and 55°C for twelve (12) days.

Schedule E Table 2- Quality Characteristics

QUALITY CHARACTERISTICS	QUALITY CHARACTERISTICS LIMIT
Enteric viruses	<1 PFU per 4 grams total solids
Helminth ova (Ascaris sp. and Taenia sp.)	<1 per 4 grams total solids
E. coli (MPN/gram)	<100
Faecal coliforms (MPN/gram)	<1000
Salmonella sp.	Not Detected/50 grams of final product

Note: PFU- Plaque-forming unit
MPN means Most Probable Number

(E7-5) Each finished stockpile containing pathogenic waste (dewatered sewage sludge) product must be monitored to confirm that the pathogenic waste product complies with the respective limits for each quality characteristic specified in Schedule E- Table 2. The sample obtained to determine compliance with Schedule E:- Table 2 must:

i) Be taken, at least, on a two yearly basis.

ii) Be > than 5 litres in volume.

iii) Be comprised of 5 sub samples of approximately equal size.

iv) Sub samples must be obtained by digging holes at equal intervals along the mid height of the heap of material to a depth of approximately 400 mm.

(E7-6) All products derived from composting activities must not exceed the quality characteristics listed in Schedule E, Table 2.

(E7-7) Records of results and determinations must be kept and provided to the administering authority with the annual return.

Schedule F- Land

Land disposal

(F2-1) The only contaminants permitted to be released to land are treated effluents and stormwater to the areas shown in the Irrigation Management Plan in compliance with the limits levels stated in Table 1 of the Land Schedule and the conditions of this authority.

Schedule F- Table 1 (Release limits - 'Land')

	Release Limit		
Quality characteristics	**Minimum**	**Maximum**	**Median**
5-Day Biological Oxygen Demand		45 mg/L	
Suspended Solids		30 mg/L	
Faecal Coliforms		1000	400
Total Phosphorus		5mg/L	
Total Nitrogen		20 mg/L	
pH	6.5	8.5	

(F2-3) Notices must be prominently displayed on any effluent irrigation area warning the public that the area is irrigated with effluent and not to use or drink the effluent. These notices must be maintained in a visible and legible condition.

(F2-4) Conduct and keep records of any monitoring programs of contaminant releases from the treatment plant at the monitoring points, frequency and for the parameters specified in Schedule F-Table 2.

(F2-5) Monitoring must be undertaken and records kept of a monitoring program of contaminant releases to the irrigation area at the monitoring points, frequency and the parameters specified in Schedule F- Table 2.

Schedule F- Table 2 (Monitoring)

Monitoring point	Quality characteristics	Units	Frequency
Release point to irrigation system following chlorination	5-Day Biological Oxygen Demand	mg/L	Monthly
	Suspended Solids	mg/L	
	Faecal Coliforms	Colonies per 100 millilitres	
	Total Phosphorus	mg/L	
	Total Nitrogen	mg/L	
	pH	pH	

(F2-6) The daily volume of contaminants released to land must be determined or estimated by an appropriate method, for example a flow meter, and records kept of such determinations and estimates.

(F2-7) When conditions prevent the irrigation of treated effluent to land (such as during or following rain events), the contaminants must be directed to wet weather storage or alternative measures must be taken to store/lawfully dispose of effluent (such as tanking off site to another treatment plant or sewer). A record must be kept of any removal or discharge off site, including destination, transporter, dates and volumes.

(F2-8) Irrigation of treated effluent must not result in run-off beyond the boundary of any irrigation areas· defined in the Irrigation Management Plan specified in condition (A9-6). There must not be any release of effluent from any wet weather storage.

Preventing contaminant release to land

(F3-2) Spillage of all chemicals and fuels must be contained within an on-site containment system and controlled in a manner that prevents environmental harm.

NOTE: All petroleum product storages must be designed, constructed and maintained in accordance with AS 1940- Storage and Handling of Flammable and Combustible Liquids.

Schedule G- Community Complaint Response

(G1-1) All complaints received must be recorded including investigations undertaken, conclusions formed and action taken. This information must be made available to the administering authority on request.

Definitions

Key terms and/or phrases used in this document are defined in this section. Applicants should note that where a term is not defined, the definition in the *Environmental Protection Act 1994*, its regulations or environmental protection policies must be used. If a word remains undefined it has its ordinary meaning.

"administering authority" means the Department of Environment and Heritage Protection or its successor or predecessors.

"authorised place" means the place authorised under this environmental authority for the carrying out of the specified environmentally relevant activities.

"authority" means this environmental authority.

"commercial place" means a place used as an office or for business or commercial purposes.

"dwelling" means any of the following structures or vehicles that is principally used as a residence-

- a house, unit, motel, nursing home or other building or part of a building;
- a caravan, mobile home or other vehicle or structure on land;
- a water craft in a marina.

"dust sensitive place" means-

- a dwelling, mobile home or caravan park, residential marina or other residential place;
- a motel, hotel or hostel;
- a kindergarten, school, university or other educational institution;
- a medical centre or hospital;
- a protected area;
- a park or gardens; or
- a place used as an office or for business or commercial purposes and includes the curtilage of any such place.

"land" in the "land schedule" of this document means land excluding waters and the atmosphere. "mg/L" means milligrams per litre.

"odour sensitive place" has the same meaning as a "dust sensitive place"

"noise affected premises" means a "noise sensitive place" or a "commercial place".

"noise sensitive place" means -

- a dwelling, mobile home or caravan park, residential marina or other residential premises; or
- a motel, hotel or hostel; or
- a kindergarten, school, university or other educational institution; or
- a medical centre or hospital; or
- a protected area; or
- a park or gardens.

and includes the curtilage of such place.

"noxious" means harmful or injurious to health or physical well-being.

"offensive" means causing offence or displeasure; is disagreeable to the sense; disgusting, nauseous or repulsive.

"protected area" means ..

- a protected area under the *Nature Conservation Act 1992*; or
- a marine park under the *Marine Parks Act 1992*; or
- a World Heritage Area.

"site" means the place to which this environmental authority relates or the premises to which this development approval relates.

"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.

END OF PERMIT