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Registration certificate

Environmental Protection Act 1994

Certificate of Registration

No: ENRE00859708

This registration certificate is issued by the administering authority and takes effect from: 05-JAN-2011.

The anniversary day for the purposes of the Annual Return remains: 10 February.

This registration certificate is a requirement of section 73F of the *Environmental Protection Act 1994* and authorises the registered operator to undertake the activity listed below at the following places; subject to the conditions set out in a development approval attached to the premises, or the relevant code of environmental compliance.

Registered Operator:-
Keswick Developments Pty Limited
Suite 9 Jones Bay Wharf
26-32 Pirrama Road, PYRMONT NSW 2009

Place:-
Lot 4 & 5 Plan 888692

Located at:-
Keswick Island

Registered Activity/ies: -
ERA 63 Sewage treatment Threshold 2(b) - operating sewage treatment works, other than no-release works, with a total daily peak design capacity of more than 100 to 1500EP (i) if treated effluent is discharged to an infiltration trench or through an irrigation scheme

C.E. Birt

Cathy Birt
Delegate
Administering authority
Environmental Protection Act 1994
05-JAN-2011

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: EPPR00480913

Environmental authority takes effect on 05-JAN-2011.

Environmental authority holder

Name	Registered address
Keswick Developments Pty Limited	Suite 9 Jones Bay Wharf 26-32 Pirrama Road PYRMONT NSW 2009

Environmentally relevant activity and location details

Environmentally relevant activity	Location(s)
63-(1b)(i) Sewage treatment >100 to 1500EP - IT or IR	Keswick Island - Lot 4 & 5 Plan CP888692

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).

Contaminated land

It is a requirement of the EP Act that if an owner or occupier of land becomes aware a notifiable activity (as defined in Schedule 3 and Schedule 4) is being carried out on the land, or that the land has been, or is being, contaminated by a hazardous contaminant, the owner or occupier must, within 22 business days after becoming so aware, give written notice to the chief executive.

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

K M Clarke

Signature

30 August 2013

Date

Katrina CLARKE
Department of Environment and Heritage Protection
Delegate of the administering authority
Environmental Protection Act 1994

Enquiries:
Ricci Churchill
ES - Mackay
PO Box 2001
MACKAY QLD 4740
Phone: 4999 6850
Fax: 4999 6804
Email: ricci.churchill@ehp.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

Location: Keswick Island

Lot 4 & 5 Plan CP888692

Relevant activity:

63-(1b)(i) Sewage treatment >100 to 1500EP - IT or IR

The environmentally relevant activity 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	In carrying out the environmentally relevant activities, you must take all reasonable and practicable measures to prevent and/or 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 have been prevented, shall be carried out in a proper manner in accordance with the conditions of this approval.
G2	The holder must: (i) Install all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority; and (ii) Maintain such measures, plant and equipment in a proper and efficient condition; and (iii) Operate such measures, plant and equipment in a proper and efficient manner.
G3	From commencement of the activity, a Site Based Management Plan (SBMP) must be implemented. The SBMP must identify all sources of environmental harm, including but not limited to the actual and potential release of all contaminants, the potential impact of these sources and what actions will be taken to prevent the likelihood of environmental harm being caused. The SBMP must also provide for the review and 'continual improvement' in the overall environmental performance of all environmentally relevant activities that are carried out.
G4	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.

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G5	Records must be kept for five years, and must include the following information: (i) Date of pickup of waste; (ii) Description of waste; (iii) Cross reference to relevant waste transport documentation; (iv) Quantity of waste; (v) Origin of waste; (vi) Destination of the waste; and (vii) Intended fate of the waste, for example, type of waste treatment, reprocessing or disposal.
G6	You must comply with the latest edition of the Queensland Environmental Protection Agency's 'Guidelines for the treatment and management of acid sulphate soils'.
G7	An annual monitoring report must be provided to the administering authority with the annual return. This report shall include but not be limited to: (i) A summary of the previous twelve (12) months' monitoring results obtained under any monitoring programs required under this authority and, in graphical form showing relevant limits, a comparison of the previous twelve (12) months' monitoring results to both this authority limits and to relevant prior results; (ii) An evaluation/explanation of the data from any monitoring programs; (iii) A summary of any record of quantities of releases required to be kept under this authority; (iv) A summary of the record of equipment failures or events recorded for any premises to which this environmental approval relates under this authority; (v) An outline of actions taken or proposed to minimise the environmental risk from any deficiency identified by the monitoring or reporting programs; (vi) The number of domestic tenements newly connected to the sewage treatment works during the previous twelve (12) months; (vii) The progressive total number of connections; and (viii) A summary of any trade waste agreements entered into or amended during the year, including the nature of the industry.
G8	This development approval only permits the operation of a sewage treatment plant which is connected to a maximum of 40 dwellings or infrastructure facilities.
G9	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.

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Agency interest: Air	
Condition number	**Condition**
A1	The release of noxious or offensive odours or any other noxious or offensive airborne contaminants resulting from the activity must not cause a nuisance at any odour sensitive place.
A2	The release of dust and/or particulate matter resulting from the activity must not cause an environmental nuisance at any dust sensitive place.
A3	Excedence of any of the following levels when measured at any dust sensitive place is an environmental nuisance for the purposes of condition A2; (i) Dust deposition of 120 milligrams per square meter per day, when monitored in accordance with Australian Standard AS 3580.10 of 1991; OR (ii) A concentration of particulate matter with an aerodynamic diameter of less than 10 micrometre (um) (PM10) suspended in the atmosphere of 150 micrograms per cubic meter over a 24 hour averaging time, at a dust sensitive place downwind of the premises to which this environmental authority relates, when monitored in accordance with Australian Standard AS 3580.9.6 "Ambient air – particulate matter – determination of suspended particulate PM10 high volume sampler with size-selective inlet – gravimetric method' OR any alternative method of monitoring PM10 which may be permitted by the Air Quality Sampling Manual as published from time to time by the administering authority.
A4	When requested by the Administering Authority, dust and particulate monitoring must be undertaken to investigate any complaint of environmental nuisance caused by dust and/or particulate matter, and the results notified within 14 days to the administering authority following completion of monitoring. Monitoring must include; (i) For a complaint alleging dust nuisance, dust deposition; and (ii) For a complaint alleging adverse health effects caused by dust, the concentration of particulate matter with an aerodynamic diameter of less than 10 micrometre (um) (PM10) suspended in the atmosphere of 150 micrograms per cubic meter over a 24 hour averaging time. (iii) Must be carried out at a place(s) relevant to the potentially affected dust sensitive places and upwind control sites.
Agency interest: Water	
Condition number	**Condition**
WT1	Contaminants must not be released from the premises to which this environmental authority relates to any waters or the bed and banks of any waters.
WT2	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.

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WT3	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.
WT4	All ponds used for the storage or treatment of contaminates, sewage or wastes at or on the authorised place must be constructed, installed and maintained; (i) So as to minimise the likelihood of any release of effluent through the bed or banks of the pond to any waters (including groundwater); (ii) So that a freeboard of not less than 0.5 metres is maintained at all times, except in emergencies; and (iii) So as to ensure the stability of the ponds' construction.
WT5	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.
WT6	The maintenance and cleaning of vehicles and any other equipment must be carried out in areas from where contaminants cannot be release into any waters, roadside gutter or stormwater drainage system.
WT7	Any spillage of wastes, contaminants or other materials must be cleaned up as quickly as practicable. Such spillages must not be cleaned up by hosing, sweeping or otherwise releasing such wastes, contaminants or material to any stormwater drainage system, roadside gutter or wastes.
WT8	Waste generated from washing and degreasing of vehicles, and equipment must be collected and: (i) Treated and disposed to sewer with the permission of the relevant local government authority in accordance with a relevant trade waste permit; or (ii) Transported for disposal to a facility that can lawfully accept such waste.
Agency interest: Noise	
Condition number	**Condition**
N1	Noise from activities must not cause an environmental nuisance at any noise sensitive place or any commercial place.

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<table>
<tr><td>N2</td><td>All noise from activities must not exceed the levels specified in Table 1 – noise limits, at any noise sensitive place.

Table 1 – Noise Limits
<table>
<tr><th>Time period</th><th>Noise level at a 'Noise sensitive place' measured as the Adjusted Maximum Sound Pressure Level $L_{A, max\ adj\ T}$</th></tr>
<tr><td>7am - 6pm</td><td>45 dB(A) or background noise level plus 5 dB(A), whichever is the greater</td></tr>
<tr><td>6pm - 10pm</td><td>40 dB(A) or background noise level plus 5 dB(A), whichever is the greater</td></tr>
<tr><td>10pm - 7am</td><td>35 dB(A) or background noise level plus 3 dB(A), whichever is the greater</td></tr>
<tr><th>Time period</th><th>Noise level at a 'Commercial place' measured as the Adjusted Maximum Sound Pressure Level $L_{A, max\ adj\ T}$</th></tr>
<tr><td>7am - 6pm</td><td>50 dB(A) or background noise level plus 10 dB(A), whichever is the greater</td></tr>
<tr><td>6pm - 10pm</td><td>45 dB(A) or background noise level plus 10 dB(A), whichever is the greater</td></tr>
<tr><td>10pm - 7am</td><td>40 dB(A) or background noise level plus 8 dB(A), whichever is the greater</td></tr>
</table></td></tr>
<tr><td>N3</td><td>Condition N2 applies if;

(i) There are complaints to the administering authority about the level of noise from any source in carrying out the environmentally relevant activities at the authorised place; and

(ii) The complaints are not frivolous or vexatious or based on mistaken belief.</td></tr>
</table>

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<table>
<tr><th colspan="2">Agency interest: Land</th></tr>
<tr><th>Condition number</th><th>Condition</th></tr>
<tr><td>L1</td><td>The only contaminates permitted to be released to land are treated effluents and associated stormwater to the areas shown on page 2 of the Keswick Island Effluent Irrigation Study submitted as Appendix D of the Keswick Island Pty Ltd Submission for the Approval of Sewage Treatment and Disposal System in compliance with the limits stated in Table 2 – release limits to land.
Table 2 – Release Limits To Land
<table>
<tr><th></th><th colspan="5">Release Limit</th></tr>
<tr><th>Quality characteristics</th><th>Minimum</th><th>50th Percentile</th><th>80th Percentile</th><th>Maximum</th><th>Median</th></tr>
<tr><td>5-day Biological Oxygen Demand</td><td></td><td></td><td></td><td>20mg/L</td><td></td></tr>
<tr><td>Suspended Solids</td><td></td><td></td><td></td><td>30mg/L</td><td></td></tr>
<tr><td>pH</td><td>6.5</td><td></td><td></td><td>8.5</td><td></td></tr>
<tr><td>Faecal Coliforms</td><td></td><td></td><td></td><td>4000 Organisms/100mL</td><td>1000 organisms/100mL</td></tr>
<tr><td>Total Nitrogen</td><td></td><td></td><td></td><td>20mg/L</td><td></td></tr>
<tr><td>Total Phosphorus as P</td><td></td><td></td><td></td><td>15mg/L</td><td></td></tr>
<tr><td>Chlorine residual</td><td>0.3mg/L</td><td></td><td></td><td></td><td></td></tr>
</table></td></tr>
<tr><td>L2</td><td>The irrigation of effluent mist be carried out in a manner such that;
(i) Vegetation is not damaged;
(ii) Soil erosion and soil structure damage is avoided;
(iii) There is no surface ponding of effluent;
(iv) Percolation of effluent beyond the plant root zone is minimised;
(v) The capacity of the land to assimilate nitrogen, phosphorus, salts, organic matter as measured by oxygen demand and water is not exceeded; and
(vi) The quality of groundwater is not adversely affected.</td></tr>
<tr><td>L3</td><td>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.</td></tr>
</table>

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L4	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 Table 3 – monitoring program. **Table 3 – Monitoring Program**

Monitoring point	Quality characteristics	Units	Frequency
Point of transfer to irrigation system	5-day Biological Oxygen Demand	mg/L	Monthly
Point of transfer to irrigation system	Suspended Solids	mg/L	Monthly
Point of transfer to irrigation system	pH		Monthly
Point of transfer to irrigation system	Faecal Coliforms	Organisms/100mL	Monthly
Point of transfer to irrigation system	Total Nitrogen	mg/L	Three Monthly
Point of transfer to irrigation system	Total phosphorus	mg/L	Three Monthly
Point of transfer to irrigation system	Chlorine Residual	mg/L	Three Monthly

L5	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.
L6	When conditions prevent the irrigation of treated effluent to land (such as during or following rain events), the contaminants must be directed to a wet weather storage or alternative measures must be taken to store/lawfully dispose of effluent (such as wet weather storage or tankering 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.
L7	Irrigation of effluent must not result in runoff beyond the boundary of any designated irrigation areas. Unless authorised under the "water" conditions, there must not be any release of effluent from any wet weather storage.
Agency interest: Waste	
Condition number	**Condition**
WS1	All regulated waste removed from the premises to which this environmental authority relates must be removed by a person who holds a current approval to transport such waste under the provisions of the *Environmental Protection Act 1994*.

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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.

"you" means the holder of this Environmental Authority or owner / occupier of the land which is the subject of this Environmental Authority.

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

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

"this authority" means this environmental authority.

"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.

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

"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.

"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.

"nuisance sensitive place" includes -
- a dwelling, residential allotment, 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 under the Nature Conservation Act 1992, the Marine Parks Act 1992 or a World Heritage Area; or
- a public thoroughfare, park or gardens; or
- a place used as a workplace, an office or for business or commercial purposes.

and includes a place within the curtilage of such a place reasonably used by persons at that place.

"$L_{A\ 10,\ adj,\ 10\ mins}$" 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

"$L_{A,\ max\ adj,\ T}$" means the average maximum A-weighted sound pressure level, adjusted for noise character and measured over any 10 minute period, using Fast response.

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"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.

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

"intrusive noise" means noise that, because of its frequency, duration, level, tonal characteristics, impulsiveness or vibration -
- is clearly audible to, or can be felt by, an individual; and
- annoys the individual.

In determining whether a noise annoys an individual and is unreasonably intrusive, regard must be given to Australian Standard 1055.2 - 1997 Acoustics - Description and Measurement of Environmental Noise Part 2 - Application to Specific Situations.

"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.

"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 any under groundwater, any part-thereof.

"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

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

"NTU" means nephelometric turbidity units

"regulated waste" means non-domestic waste mentioned in Schedule 7 of the Environmental Protection Regulation 1998 (whether or not it has been treated or immobilised), and includes:
- for an element - any chemical compound containing the element; and
- anything that has contained the waste.

"licensed vehicle" means a vehicle authorised to be used under the licence to transport regulated waste.

"registered vehicle" means "licensed vehicle"

"clinical waste" means waste that has the potential to cause disease including, for example, the following:
- animal waste;
- discarded sharps;
- human tissue waste;
- laboratory waste.

"infectious waste" means "clinical waste"

"release" means a release either directly or indirectly.

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"designated irrigation areas" means the irrigation area outlined on page 2 of the Keswick Island Effluent Irrigation Study submitted as Appendix D of the Keswick Island Pty Ltd Submission for the Approval of Sewage Treatment and Disposal System.

END OF PERMIT

KMC 30/8/13