DERM Permit[1] number:	SPCE00394510
Date application received by DERM:	27 May 2010
Permit[1] Type:	Concurrence Response for a MCU involving an ERA
Decision:	Approved subject to conditions attached
Date of Decision:	27 September 2010
Relevant Laws and Policies:	*Environmental Protection Act 1994* and subordinate legislation
Jurisdiction:	Schedule 3 Part 1 of *Sustainability Planning Regulation 2009*

Development Description

Property	Lot/Plan	Aspect of Development
Hay Point Hotel Motel 1272 Hay Point Rd, Hay Point.	Lot 2 on RP733719	ERA 63.2(a) Sewage treatment – operating sewage treatment works, other than no-release works, with a total daily peak design capacity of more than 21 to 100EP.

Reasons for inclusion of development conditions

In accordance with section 289 of the *Sustainable Planning Act 2009*, the reason(s) for inclusion of conditions stated in this permit required by the concurrence agency response for the application are as follows.

a) The former Environmental Protection Agency, now the Department of Environment and Resource Management is a concurrence agency under the *Integrated Planning Regulation 1998* for the purposes of the *Environmental Protection Act 1994*.
b) Any development conditions placed on this permit[1] for an environmentally relevant activity are in accordance with section 73B of the *Environmental Protection Act 1994*.

Additional information for applicants

Sewage Treatment

Treated sewage wastes (as "recycled water") used at the Hay Point Hotel Motel development must be managed consistent with the *Queensland Water Recycling Guidelines* December 2005, and any advice provided by Queensland Health and/or the Office of the Water Supply Regulator, Department of Environment and Resource Management.

[1] Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation administered by the Department of Environmental and Resource Management.

This approval relates to the management of potential environmental impacts only with respect to the supply and use of recycled water. This approval is not intended to regulate the public health impacts associated with the internal supply and use of recycled water. For public health requirements, the approval holder is directed to consult with Queensland Health and the Office of the Water Supply Regulator, Department of Environment and Resource Management.

Contaminated Land
It is a requirement of the *Environmental Protection Act 1994* that if an owner or occupier of land becomes aware a Notifiable Activity (as defined by Schedule 3 of the *Environmental Protection Act 1994*) is being carried out on the land or that the land has been affected by a hazardous contaminant, they must, within 30 days after becoming so aware, give notice to the Department of Environment and Resource Management.

Environmentally Relevant Activities
The aforementioned description of any environmentally relevant activity (ERA) for which this permit is issued is simply a restatement of the ERA as prescribed in the legislation at the time of issuing this permit. Where there is any conflict between the abovementioned description of the ERA for which this permit is issued and the conditions specified herein as to the scale, intensity or manner of carrying out of the ERA, then such conditions prevail to the extent of the inconsistency.

This permit authorises the ERA. It does not authorise environmental harm unless a condition within this permit explicitly authorises that harm. Where there is no such condition, or the permit is silent on a matter, the lack of a condition or silence shall not be construed as authorising harm.

In addition to this permit, the person to carry out the ERA must be a registered operator under the *Environmental Protection Act 1994*. For the person to become a registered operator, they must apply for a registration certificate under section 73F of the *Environmental Protection Act 1994*.

Vicki Coburn
Delegate
Administering the *Environmental Protection Act 1994*
Department of Environment and Resource Management

27 September 2010

CONDITIONS OF APPROVAL

Agency Interest: General

(G1) This development approval permits the carrying out of environmentally relevant activity (ERA) 63 2(b), operating a sewage treatment works (comprising sewer infrastructure and sewage treatment plant disinfection via ultraviolet radiation), using plant and equipment with a peak design capacity based on a wastewater generation rate of 13,300 L/day under peak dry weather flow conditions.

Display of Development Approval

(G2) A copy of the conditions of this development permit must be kept in a location readily accessible to personnel carrying out the activity.

Prevent and/or Minimise Likelihood of Environmental Harm

(G3) In carrying out an ERA to which this approval relates, all reasonable and practicable measures must be taken to prevent and/or to minimise the likelihood of environmental harm being caused.

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

Site Based Management Plan.

(G4) The activity must be operated in accordance the *Site Based Management Plan* as provided in section 3 of the application material.

(G5) From commencement of an ERA to which this approval relates, 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 ERAs that are carried out.

(G6) The SBMP must not be implemented or amended in a way that contravenes any condition of this approval. If there is a potential conflict between the SBMP and the conditions of this approval, the conditions of this approval take precedent.

(G7) The SBMP must address the following matters - environmental commitments - a commitment by senior management to achieve specified and relevant environmental goals:

a) Identification of environmental issues and potential impacts;

b) Control measures for routine operations to minimise likelihood of environmental harm;

c) Contingency plans and emergency procedures for non-routine situations;

d) Organisational structure and responsibility;

e) Effective communication;

f) Monitoring of contaminant releases;

g) Conducting environmental impact assessments;

h) Staff training;

i) Record keeping; and

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j) Periodic review of environmental performance and continual improvement.

(G8) The SBMP must be reviewed, and if necessary amended, every three years from the issue date of this Development Permit. A copy of the most recent SBMP must be provided to the administering authority within one month of any changes made.

Maintenance of Measures, Plant and Equipment

(G9) The registered operator of an ERA to which this approval relates must:

a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this approval; and

b) maintain such measures, plant and equipment in a proper and efficient condition; and

c) operate such measures, plant and equipment in a proper and efficient manner.

Alterations

(G10) No change, replacement or operation of any plant or equipment is permitted if the change, replacement or operation of the plant or equipment increases, or is likely to substantially increase, the risk of environmental harm above that expressly provided for by this approval.

Records

(G11) Record, compile and keep all monitoring results required by this development approval and present this information to the administering authority upon request.

(G12) All records required by the development approval must be kept for at least five (5) years, except where stated otherwise in a condition of this approval.

Cease Activities in Event of Material or Serious Environmental Harm Occurring

(G13) If the registered operator of an ERA to which this approval relates becomes aware of material environmental harm or serious environmental harm as a result of carrying out the environmentally relevant activity (ERA) then the said activities must cease immediately.

Notification

(G14) Any emergency, incident or event, which results in the release of contaminants not in accordance with, or reasonably expected to be in accordance with the conditions of this approval, must be reported by telephone to the administering authorities' pollution hotline or the district office located in the area where the release occurred. Any such release must be reported as soon as practicable, but no later than 24 hours after the holder of the development approval becomes aware of the release.

Information to Follow Notification

(G15) Within 14 days of any notification advice in accordance with **Condition G11**, a written notice detailing the following information must be provided to the DERM provided:

a) the name of the operator, including their approval / registration number;

b) the name and telephone number of a designated contact person;

c) quantity and substance released and/or description of event;

d) the time of the release/event;

e) the location and time of the release/event;

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f) the suspected cause of the release/event;

g) a description of the effects of the release/event;

h) the results of any sampling performed in relation to the release/event;

i) actions taken to mitigate any environmental harm caused by the release/event; and

j) proposed actions to prevent a recurrence of the release/event.

Incident Recording

(G16) A record must be maintained of at least the following events:

a) the time, date and duration of equipment malfunctions where the failure of the equipment resulted in the release of contaminants reasonably likely to cause environmental harm; and

b) any uncontrolled release of contaminants reasonably likely to cause environmental harm.

Spill Kit(s)

(G17) Appropriate spill kit(s) and relevant operator instructions/emergency procedure guides for the management of wastes and chemicals associated with the ERA must be kept at the site.

Spill Kit Training

(G18) Anyone operating under this approval must be trained in the use of the spill kit(s).

Equipment Calibration

(G19) All instruments, equipment and measuring devices used for measuring or monitoring in accordance with any condition of this development approval must be calibrated and appropriately operated and maintained.

Trained/Experienced Operator(s)

(G20) The operation of the sewer infrastructure, sewage treatment plant and pollution control equipment must be carried out by a person(s) with appropriate experience and/or qualifications to ensure the effective operation of that treatment plant and control equipment.

Wastewater Spillage Abatement Strategy

(G21) The registered operator of an ERA to which this development approval relates must operate and maintain a Wastewater Spillage Abatement Strategy to minimise spills and overflows from wastewater infrastructure associated with the on site sewerage system located at Lot 2 on RP733719, 1272 Hay Point Rd, Hay Point.

Minimise Infiltration/Exfiltration

(G22) All reasonable and practicable measures must be taken to minimise the infiltration of stormwater and/or groundwater to sewer and exfiltration of sewage to groundwater and/or surface waters and/or land.

(G23) For the purposes of demonstrating compliance with condition G22 the registered operator to which this development approval relates must establish and maintain a system that addresses the following matters:

a) the estimated level of infiltration/exfiltration; and

b) the reasonable and practicable measures intended to minimise infiltration/exfiltration; and

c) the actions taken to minimise infiltration/exfiltration; and

d) periodic re-estimations of the level of infiltration/exfiltration and, by comparison with previous infiltration/exfiltration estimates and connected population, an assessment of the

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effectiveness of the actions taken to minimise infiltration/exfiltration; and

e) where infiltration/exfiltration has been identified as a cause for overflows/spills/unplanned releases from sewerage infrastructure; and

f) details of the system must be provided to the administering authority upon request.

Waste Records

(G24) A record 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.

Sample Analysis

(G25) All analyses and tests required to be conducted under this development approval must be carried out by a laboratory that has National Association Testing Association certification for such analyses and tests, except as otherwise authorised by the administering authority.

(G26) The registered operator of an ERA to which this development approval relates must ensure that the results of all the monitoring performed in accordance with this development approval for the period covered by the annual return are kept at the premises to which this development approval relates.

Monitoring

(G27) An experienced and suitably qualified person(s) must conduct any monitoring required by this approval.

Acid Sulphate Soils (ASS) Management

(G28) 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.

Annual Monitoring Report

(G29) An annual monitoring report must be prepared and submitted to the administering authority with each annual return. This report shall include but not be limited to:

a) a summary of the previous twelve (12) months monitoring results obtained under the monitoring programs required under this approval and, in graphical form showing relevant limits, a comparison of the previous twelve (12) months monitoring results to both this approvals limits and to relevant prior results; and

b) an evaluation and interpretation of the data from any monitoring programs;

c) a summary of any record of quantities of releases required to be kept under this approval;

d) a summary of the record of equipment failures or events recorded for any site under this approval;

e) actions taken or proposed to minimise the environmental risk from any deficiency identified by the monitoring or recording programs; and

f) a summary of any recycled water agreements entered into or amended during the year, including the nature of the industry.

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Agency Interest: Social

Complaint Response

(S1) The registered operator of an ERA to which this approval relates must record the following details for all complaints received and provide this information to the administering authority on request:

a) Time, date, name and contact details of the complainant;

b) reasons for the complaint;

c) any investigations undertaken;

d) conclusions formed; and

e) any actions taken.

Agency Interest: Air

Odour Nuisance

(A1) The release of noxious or offensive odours or any other noxious or offensive airborne contaminants resulting from the activities must not cause a nuisance at any nuisance sensitive or commercial place.

Dust Nuisance

(A2) The release of dust and/or particulate matter resulting from the activities must not cause an environmental nuisance at any nuisance sensitive or commercial place.

(A3) Dust and particulate matter must not exceed the following levels when measured at any nuisance sensitive or commercial place:

a) Dust deposition of 120 milligrams per square metre per day, when monitored in accordance with Australian Standard AS 3580.10.1 of 2003 (or more recent editions); or

b) a concentration of particulate matter with an aerodynamic diameter of less than 10 micrometre (µm) (PM10) suspended in the atmosphere of 50 micrograms per cubic metre over a 24 hour averaging time, at a nuisance sensitive or commercial place downwind of the site, when monitored in accordance with:

I. Australian Standard AS 3580.9.6 of 2003 (or more recent editions) 'Ambient air - Particulate matter - Determination of suspended particulate PM10 high-volume sampler with size-selective inlet -Gravimetric method'; or

II. 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) Upon request 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 be carried out at a place(s) relevant to the potentially affected dust sensitive place and at upwind control sites and must include:

a) for a complaint alleging dust nuisance, dust deposition; and

b) for a complaint alleging adverse health effects caused by dust, the concentration per cubic metre of particulate matter with an aerodynamic diameter of less than 10 micrometre (µm) (PM10) suspended in the atmosphere over a 24hr averaging time.

Agency Interest: Noise

Noise Nuisance

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(N1) Noise from the ERA(s) must not cause an environmental nuisance at any nuisance sensitive or commercial place.

(N2) All noise from the ERA(s) must not exceed the levels specified in Table 1 - Noise limits, at any nuisance sensitive or commercial place.

Table 1 - Noise Limits

Sound Pressure Level dB(A)	*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'					
$L_{A, max adj, T}$	Background + 5 dB(A)	Background + 5 dB(A)	Background +3 dB(A)	Background +3 dB(A)	No audible noise	No audible noise
	Noise measured at a 'Commercial place'					
$L_{A, max adj, T}$	Background + 10 dB(A)	Background + 10 dB(A)	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)

Where "T" is 10 minutes and "Background" means background sound pressure level measured in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual.*

Table 1 does not purport to set operating hours for the ERA.

Noise Monitoring

(N3) Upon request by the administering authority, noise monitoring must be undertaken to investigate any complaint of noise nuisance, and the results notified within 14 days to the administering authority. Monitoring must include:

a) background noise level

b) $L_{A\ 10, adj, 10\ mins}$

c) $L_{A\ 1, adj, 10\ mins}$

d) $L_{A, max adj, T}$

e) the level and frequency of occurrence of impulsive or tonal noise;

f) atmospheric conditions including wind speed and direction;

g) effects due to extraneous factors such as traffic noise; and

h) location, date and time of recording.

(N4) The method of measurement and reporting of noise levels must comply with the latest edition of the Department of Environment and Resource Management's Noise Measurement Manual.

Agency Interest: Land

Preventing Contaminant Release To Land

(L1) Contaminants must not be released to land, except where otherwise stated in a condition of this approval.

(L2) Activities on site must be conducted in a way that prevents any potential or actual release of

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contaminants to land that constitutes environmental nuisance or harm.

(L3) The storage and handling of all contaminants, wastes and other materials on site must be:

a) contained within on-site containment systems;

b) controlled in a manner that prevents any release to the environment; and

c) any system or measures to contain contaminants on site must be constructed in accordance with the relevant Australian Standard.

Bunding

(L4) All liquid chemical and waste tank storages must be bunded such that the capacity of the bund is sufficient to contain at least 100% of the largest storage tank plus 10% of the second largest storage tank within the bund.

(L5) All bunding must be constructed of materials which are impervious to the materials stored and transferred therein and must be roofed.

(L6) A collection sump must be provided in the floor of the bunding to facilitate the removal of liquids. The bund floor must be graded so that the fall is towards the collection sump.

(L7) All pipe work to and from the bunded areas must be directed over the bund walls and not through them.

(L8) Where vehicle access to a bunded area is required, the access must be by way of a rollover bund.

(L9) All empty drums must be stored on a concrete hardstand area with their closures in place.

Description of Contaminants Released to Land within Hay Point Hotel Motel

(L10) From commencement of an ERA to which this approval relates, the only contaminants permitted to be released to land are treated sewage wastes in the irrigation areas in Drawing Number 41-21583-C002 created by GHD and dated 01/09/2010, shown herein as Attachment 1.

(L11) From commencement of an ERA to which this approval relates, the only contaminants permitted to be released to land must be in compliance with the release limits stated in Table 2 - Treated Effluent Quality Characteristics.

(L12) Treated Effluent Quality Characteristics must be sampled from the treated water storage / irrigation tank. Monitoring Point: P1 – Hay Point Hotel Motel storage / irrigation tank.

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Table 2 – Treated Effluent Quality Characteristics

Release limits					Monitoring Frequency
Monitoring point	**Quality characteristics**	**Units**	**Minimum**	**Maximum**	
P1[1]	Thermotolerant Coliforms	(CFU/100mL[2])		10	Monthly
P1[1]	E.Coli	cfu/100mL	-	10	Monthly
P1[1]	Dissolved Oxygen	mg/L	2.0	-	Weekly
P1[1]	BOD5	mg/L	-	20.0	Monthly
P1[1]	Total Suspended Solids	mg/L	-	10.0	Monthly
P1[1]	Turbidity	NTU	-	5.0	Weekly
P1[1]	Electrical[2] Conductivity	MicroSiemens/cm	-	1000	Weekly
P1[1]	pH	pH units	6.0	8.5	Continuous
P1[1]	Total Nitrogen	mg/L (as Nitrogen)	-	20.0	Monthly
P1[1]	Total Phosphorus	mg/L (as Phosphorus)	-	15.0	Monthly

1 means representative sample using composite sampling

2 means median of five consecutive samples taken at not less than ½ hourly intervals

3 means at furthest point in recycled water distribution system

(L13) Notwithstanding the quality characteristics limits specified in Table 2 – Treated Effluent Quality Characteristics, release of recycled water to land must not have any properties nor contain any organisms or other contaminants in concentrations that are capable of causing environmental harm.

(L14) The maximum daily volume of treated effluent to be irrigated is not to exceed 13,300L/day.

(L15) The daily volume of contaminants as treated sewage wastes released to land must be determined or estimated by an appropriate method with an accuracy of +/- 5%, for example a flow meter, and records kept of such determinations or estimations.

(L16) Soils moisture meters and or a rainfall recording system must be used to assist in sustainable irrigation scheduling for land irrigated with treated sewage wastes.

(L17) Land used for the irrigation of recycled water must have a minimum surface area of 6275m^2, excluding necessary stormwater drainage, residential, remnant vegetation buffers.

(L18) Any overflow release(s) of treated sewage wastes from all effluent storages must be to sewer and/or tankered off-site.

(L19) Notices must be prominently displayed on areas undergoing recycled water irrigation, warning the

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public that the area is irrigated with recycled water and not to use or drink the recycled water. These notices must be maintained in a visible and legible condition and be in compliance with AS1319 – Safety signs for the occupational environment.

(L20) Pipelines and fittings associated with the recycle water irrigation system must be clearly identified. Lockable valves or removable handles must be fitted to all released pipes situated in public areas.

(L21) Any biomass (grass/vegetation clippings) removed from plants growing on irrigated land must be transported and disposed of other in areas other than on the irrigated land.

(L22) There shall be no irrigation of remnant vegetation using recycled water.

Wet Weather Storage

(L23) When conditions prevent the application of recycled water to land, the contaminants must be directed to wet weather storage or alternative measures must be taken to lawfully dispose of recycle water, such as discharge to sewer and/or tankering off-site.

(L24) A minimum storage capacity of 90,000L is to be provided.

Treated Effluent Irrigation Management Plan

(L25) From the date of issue of this approval the registered operator of the ERA to which this approval relates must develop and implement an Irrigation Management Plan (IMP) which details how the effluent irrigation process will be effectively and appropriately manages so as to ensure that the release of effluent to land is carried out in an environmentally sustainable manner.

(L26) The IMP should detail how irrigation will be managed and monitored so that the following occur:

a) vegetation is not damaged;
b) soil erosion and/or soil structure damage are avoided;
c) there is no surface ponding of effluent;
d) effluent is evenly distributed on the irrigation area;
e) infiltration of effluent beyond the plant root zone is minimised;
f) the capacity of land to assimilate nitrogen, phosphorous, salts and organic matter is not exceeded;
g) the quality of groundwater is not adversely affected;
h) how irrigation using effluent to land will be carried out if soil moisture conditions are such that surface runoff, ponding or pooling beyond the property boundary is likely to occur and how this will be managed (e.g. soil moisture meters);
i) how irrigation of land will not result in adverse public health issues (i.e. plumbing controls signage); and
j) procedures for educating and training staff about public health issues associated with using recycled water onsite.

(L27) A copy of the IMP must be kept at the premises to which this development approval relates and a copy provide to the Department within three (3) months of commencement.

Irrigation Area Monitoring Program

(L28) The registered, operator of the ERA to which this approval relates must develop and implement a Contaminant Release Area Monitoring Program to effectively monitor the condition of the land to which recycled water are applied.

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(L29) In accordance with Condition L28, the Treated Effluent Release Area Monitoring Program must at a minimum include:

a) annual soil monitoring of the following parameters as specified in Table 5 - Soil Monitoring of Irrigation Area;
b) interpret soil testing results;
c) determine sustainable loadings and soil management; and
d) implement such measures as to ensure sustainable loadings and soil management.

Table 3- Soil Monitoring of Irrigation Area

Soil Quality Parameters	Units
pH	pH Scale
Electrical Conductivity	µS/cm
Available Phosphorus	mg/kg
Available Potassium	mg/kg
Total Nitrogen	mg/kg
Total cations (inc. NA, CA, Mg, K)	mg/L
Cation Exchange Capacity	meq/100g
Exchangeable Sodium Percentage	meq/100g
Chloride	meq/l
Trace elements	ppm
Heavy metals	ppm
Organic carbon	%

(L30) The registered operator must submit to the administering authority with the annual return a report on the Treated Effluent Release Area Monitoring Program, including:

a) an assessment of the impact of the release of recycled water to the irrigation area(s),
b) whether the release is being carried out in an environmentally sustainable manner; and
c) recommendations to achieve sustainability should monitoring indicate non-sustainable application of treated effluent to land.

Agency Interest: Water

Release to Waters

(WA1) Contaminants must not be directly or indirectly released from the site to any waters, including groundwater, or the bed and banks of any waters.

(WA2) The maintenance and cleaning of vehicles and any other equipment or plant must be carried out in areas where contaminants cannot be released into any waters, roadside gutter or stormwater drainage system.

Stormwater Management

(WA3) 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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(WA4) All reasonable and practicable measures must be implemented to prevent the release of stormwater runoff that has been in contact with any contaminants at the site to any waters, roadside gutter or stormwater drain.

(WA5) 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 waters.

Monitoring of Groundwater Quality

(WA6) Water quality monitoring conducted in accordance with this development approval must comply with the following requirements:

a) All determinations of the quality of contaminants released to waters must be made in accordance with, but are not limited to, methods prescribed in:

I. the *Queensland Environmental Protection Agency Water Quality and sampling manual 2009,* or more recent editions or supplements to that document as such become available;

II. Carried out on samples that are representative of the discharge.

(WA7) The registered operator must implement an on-going Groundwater Monitoring Program (GMP), including the development of a suitable groundwater monitoring network, to monitor the quality of groundwater potentially impacted by any direct or indirect release of contaminants associated with the authorised activity.

(WA8) The groundwater monitoring network referred to in condition WA7 must:

a) be installed and maintained by a suitably qualified and experienced person; and
b) be constructed in accordance with the Agriculture and Resource Management Council of Australia and New Zealand manual titled *Minimum Construction Requirements for Water Bores in Australia, Edition 2, Revised September 2003*, or more recent editions or supplements to that document as such become available.

(WA9) The GMP must include the following requirements:

a) a minimum of three groundwater bores, with one reference (background) groundwater bore to be installed;
b) the groundwater bores must be hydrologically located to detect potential groundwater impacts from irrigating treated effluent to land, and the sewage treatment plant;
c) all determinations of the quality of contaminants released to waters must be made in accordance with, but are not limited to, methods prescribed in:

I. *AS/NZS 5667:11:1998 – Water Quality – Sampling – Guidance on sampling of groundwaters*, or more recent editions or supplements to that document as such become available; and/or
II. the *"Queensland Environmental Protection Agency Water Quality Sampling Manual, 3rd Edition*, December 1999", or more recent editions or supplements to that document as such become available;

d) groundwater samples taken from the bores must be analysed for, but are not limited to, the water quality parameters required in Table 4 - Groundwater Monitoring;
e) standing water levels and total well depths in metres must be measured and recorded on during each sampling event. Such measurements must be undertaken prior to any disturbance by sampling activities and must be reported as the depth in metres from the top edge of the highest point of the casing collar to the water surface within the bore;
f) groundwater samples taken from the bores must be representative of the aquifer(s); and
g) Groundwater samples must be taken from each of the bores before commencement of the environmentally relevant activity and during each sampling event.

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Table 4 - Groundwater Quality Characteristics

Water Quality Parameters	Units	Monitoring Frequency
pH	pH Scale	Before commencement of irrigation and then 6 monthly from commencement of irrigation. After 4 monitoring events on commencement of irrigation, DERM based on the findings of the Groundwater Monitoring Analysis Report may approve monitoring to be conducted annually.
Electrical Conductivity	µS/cm	
Total Nitrogen	as Nitrogen mg/L	
Ammonia	as Nitrogen mg/L	
Nitrite	as Nitrogen mg/L	
Nitrate	as Nitrogen mg/L	
Total Phosphorous	mg/L as Phosphorus	
E. Coli	colony forming units / 100 mL	
Biological Oxygen Demand	5 day inhibited, mg/L	

Groundwater Monitoring Analysis Reporting

(WA10) The registered operator must ensure that the groundwater monitoring data gathered in accordance with this development approval is analysed and interpreted to assess the nature and extent of any environmental harm. The assessment must also include, but not be limited to:

a) the location of the groundwater bores;
b) nature (confined, unconfined etc.) of the aquifer;
c) water quality of each aquifer;
d) define groundwater contours; and
e) indicate direction of flow.

The data collation, analysis and assessment must be conducted by a suitably qualified and experienced person and must be submitted to the administering authority with the annual return.

Monitoring

(WA11) Monitoring of contaminants released from the Hay Point Hotel Motel Treatment Plant must be undertaken at the monitoring point prescribed for the release point and records kept, for the quality characteristics and at the frequency specified in Table 2 - Treated Effluent Quality Characteristics.

(WA12) There must be sufficient backup power available to operate Hay Point Hotel Motel on site sewerage system, associated infrastructure and any instrumentation associated with Hay Point Hotel Motel on site sewerage system.

Monitoring of Volume of Sewage and Release of Treated Sewage to Wet Weather Storage

(WA13) The daily volume and flow rate of sewage entering Hay Point Hotel Motel on site sewage management report must be determined or estimated by an appropriate method with an accuracy of +/- 5%, for example a calibrated flow meter and records kept of such determinations.

(WA14) The daily volume and flow rate of treated sewage entering Hay Point Hotel Motel Water Storage must be determined or estimated by an appropriate method with an accuracy of +/- 5%, for example a calibrated flow meter and records kept of such determinations.

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Sewage Pump Stations and Overflow Structures Associated with Hay Point Hotel motel on site sewerage system

(WA15) Sewage pump stations must be fitted with stand-by pumps and pump-failure alarms and/or telemetry, as well as high-level alarms to warn of imminent pump station overflow.

[Note: sewage pump overflows must be contained for return back into the sewage treatment system.]

(WA16) All alarms and telemetry systems referred to in condition WA15 must be able to raise an alarm should mains power failure occur at the pump station. When triggered the alarm must be reported to the appropriate person to respond to the failure.

(WA17) The registered operator of an ERA to which this approval relates must maintain an updated list of all sewage pump stations and overflow structures connected to the on site sewerage treatment plant. This list must contain at least the following information:

a) sewage pump station identification (eg, sewage pump station number by which the sewage pump station is uniquely identified);
b) location of the sewage pump station; and
c) identification of the part of environment to which an overflow/discharge may occur (e.g. for waterbodys, a description of where sewage may enter the particular waterbody).

(WA18) The registered operator of an ERA to which this approval relates must forward an updated list of the information required by condition WA17 to the administering authority with each annual return.

[Note: if the details required by condition WA17 have not changed since the last annual return the following statement should be included in the annual return "There has been no change to the locations or details of the sewage pumping stations connected to on site sewerage treatment plant since the last annual return"].

(WA19) Treated sewage wastes must not be used for any other purpose at the place to which this development approval relates other than for irrigation at designated effluent irrigation areas or non-potable uses consistent with the *Queensland Water Recycling Guidelines 2008* or more recent editions and in accordance with the conditions of this development approval.

(WA20) The recycled water system shall be separate and independent of any potable water supply system.

Agency Interest: Waste

Waste Management

(W1) Waste must not be released to the environment, stored, transferred or disposed contrary to any condition of this development approval.

(W2) The registered operator of an ERA to which this approval relates must not:

a) burn waste at or on the site;
b) allow waste to burn or be burnt at or on the site;
c) remove waste from the site and burn such waste elsewhere except in accordance with the conditions of an approval.

(W3) Waste generated in the carrying out of the activities must be stored, handled and transferred in a proper and efficient manner.

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Waste Handling

(W4) All regulated waste removed from the site must be removed by a person who holds a current approval to transport such waste under the provisions of the *Environmental Protection Act 1994.*

Off-site Movement of Waste

(W5) Where regulated waste is removed from the site (other than by a release as permitted under another condition of this development approval), the registered operator of an ERA to which this development approval relates must monitor and keep records of the following:

a) the date, quantity and type of waste removed;

b) the name of the waste transporter and/or disposal operator that removed the waste; and

c) the intended treatment/disposal/destination of the waste.

[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.]

Notification of Improper Disposal of Regulated Waste

(W6) If a person removes regulated waste associated with activities at the site and disposes of such waste in a manner which is not authorised or is improper or unlawful, the registered operator must notify the administering authority of all relevant facts, matters and circumstances known concerning the disposal as soon as practicable.

(W7) Bio-solid and sludge produced by the Sewage Treatment Plant must be disposed at an authorised waste disposal facility.

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Schedule H – Definitions

Words and phrases used throughout this licence or development approval are defined below:

Where a definition for a term used in this authority is sought and the term is not defined within this authority the definitions provided in the *Environmental Protection Act 1994*, its regulations, and Environmental Protection Policies shall be used.

Word Definitions

"administering authority" means the Environmental Protection Agency or its successor.

"annual return" means the return required by the annual notice (under section 316 of the *Environment Protection Act 1994*) for the section 73F registration certificate that applies to the development approval.

"approval" means 'notice of development application decision' or 'notice of concurrence agency response' under the *Integrated Planning Act 1997.*

"approved plans" means the plans and documents listed in the approved plans section in the notice attached to this development approval.

"authorised place" means the place authorised under this development approval for the carrying out of the specified environmentally relevant activity(ies).

"background noise level" means either:

- $L_{A90, T}$ being the A-weighted sound pressure level exceeded for 90 percent of the time period of not less than 15 minutes, using Fast response, or

- $L_{Abg, T}$ being the arithmetic average of the minimum A-weighted sound pressure level readings measured in the absence of the noise under investigation during a representative time period of not less than 15 minutes, using Fast response.

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

"dry weather day" means a day during which less than 1 mm of rainfall is recorded at any rainfall measuring station recognised by the Commonwealth Bureau of Meteorology within the sewered area connected to the sewage treatment plant, or if no such measuring station exists, at the nearest such station to the sewage treatment plant. The term also excludes days during which recorded rainfall over the four preceding days exceeds 50 mm

"dry weather flow" means flow which occurs from the sewage treatment plant to the designated receiving water during a dry weather day

"dust sensitive place" means a nuisance 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

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"Department of Environment and Resource Management" means the department or agency (whatever called) administering the *Coastal Protection and Management Act 1995* or the *Environmental Protection Act 1994*.

"EP Act" means the *Environmental Protection Act 1994* and all legislation subordinate to this act

"high water mark" means the ordinary high water mark at spring tides.

"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

"irrigation area" means the lands within the Hay Point Hotel Motel site which is permitted to receive treated sewage wastes.

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

"mg/L" means milligrams per litre

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

"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

"maximum" means that the measured value of the quality characteristic or contaminant must not be greater than the release limit stated.

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"minimum" means that the measured value of the quality characteristic or contaminant must not be less than the release limit stated.

"Noise Measurement Manual" means the following document or more recent editions or supplements to that document as such become available:

- Queensland Department of Environment and Resource Management. (2000). *Noise Measurement Manual Third Edition.*

"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.

"NTU" means nephelometric turbidity units.

"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.

"recycled water" means appropriately treated sewage wastes suitable for further use and includes treated sewage wastes from onsite treatment of domestic or industrial wastewater and treated sewage wastes from sewage treatment plants (including water mining from sewers)

"registered operator" means the holder of a registration certificate issued by the administering authority under the *Environmental Protection Act 1994* for carrying out the environmentally relevant activity(ies) at the site to which this development approval pertains.

"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.

"site" means the place/premises to which this development approval relates.

"Soils Monitoring Protocol" means the following:
Initial Survey (Prior to Effluent Application) - The taking of sufficient soil samples across the proposed irrigation area on a 6 monthly basis to provide a baseline by which future impacts and the sustainability of the irrigation scheme can be measured.

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Sample A1 horizon and A2 horizon (0 –10cms) or bottom of A2 horizon if B horizon is impermeable (sampling depths recorded by the registered operator)

Measure –

- pH (water)
- Electrical Conductivity (EC) (1:5)
- Exchangeable Ca, Mg, Na, K, Al
- Effective cation exchange capacity (ECEC)
- Exchangeable sodium percentage
- Total organic C
- Total N
- Extractable P (Colwell method)
- Nitrite

"**Total Nitrogen**" means the sum of Organic Nitrogen, Ammonia Nitrogen, Nitrite plus Nitrate Nitrogen, which must be reported separately, expressed as mg/L as Nitrogen

"Total Phosphorus" 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

"treated sewage wastes" means aqueous waste flowing from sewage treatment plants, that has been subjected to treatment to improve its quality

"watercourse" means a river, creek or stream in which water flows permanently or intermittently-
in a natural channel, whether artificially improved or not; or
in an artificial channel that has changed the course of the watercourse.

"Water Quality Sampling Manual" means the following document or more recent additions or supplements to that document as such become available:

Environmental Protection Agency. (1999). *Water Quality Sampling Manual Third Edition*, Environmental Protection Agency, Brisbane, Australia

"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.

"weekly" means that a sample is collected each week and the subsequent sample must be taken on the seventh day following that day and is inclusive of Saturdays and Sundays (i.e. day rolling forward each week this week Monday, next week Tuesday)

"wet weather day" means a day which is not a dry weather day.

"you" means the holder of this development approval/registered operator or owner/occupier of the land which is the subject of this development approval

END OF CONDITIONS

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