Permit

Environmental Protection Act 1994

Environmental authority EPPR00482813

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

Environmental authority number: EPPR00482813

Environmental authority takes effect on 21 December 2018

Environmental authority holder(s)

Name(s)	Registered address
QUEENSLAND CORRECTIVE SERVICES	Level 16, Northbank Plaza 69 Ann Street BRISBANE CITY QLD 4000

Environmentally relevant activity and location details

Environmentally relevant activity/activities	Location(s)
Prescribed ERA, ERA 63 - Sewage Treatment, 1: Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of, (b-i) more than 100 but not more than 1500EP if treated effluent is discharged from the works to an infiltration trench or through an irrigation scheme	Lot 1/RP864039

Additional information for applicants

Environmentally relevant activities

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

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

A person carrying out an ERA must also be a registered suitable operator under the Environmental Protection Act 1994 (EP Act).

Contaminated land

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

- the happening of an event involving a hazardous contaminant on the contaminated land (notice must be given within 24 hours); or

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- a change in the condition of the contaminated land (notice must be given within 24 hours); or
- a notifiable activity (as defined in Schedule 3) having been carried out, or is being carried out, on the contaminated land (notice must be given within 20 business days);

that is causing, or is reasonably likely to cause, serious or material environmental harm.

For further information, including the form for giving written notice, refer to the Queensland Government website www.qld.gov.au, using the search term 'duty to notify'.

Take effect

Please note that, in accordance with section 200 of the EP Act, an EA has effect:

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

However, if the EA is authorising an activity that requires an additional authorisation (a relevant tenure for a resource activity, a development permit under the Planning Act 2016 or an SDA Approval under the State Development and Public Works Organisation Act 1971), this EA will not take effect until the additional authorisation has taken effect.

If this EA takes effect when the additional authorisation takes effect, you must provide the administering authority written notice within 5 business days of receiving notification of the related additional authorisation taking effect.

If you have incorrectly claimed that an additional authorisation is not required, carrying out the ERA without the additional authorisation is not legal and could result in your prosecution for providing false or misleading information or operating without a valid environmental authority.

Christine Mooney
Department of Environment and Science
Delegate of the administering authority
Environmental Protection Act 1994

Date issued: 02 January 2019

Enquiries:
Extraction, Energy and Chemical Industries Assessment
Department of Environment and Science
Phone: 1300 130 372
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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)

Legislative requirements

Obligations under the *Environmental Protection Act 1994*

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

Other permits required

This permit only provides an approval under the *Environmental Protection Act 1994*. In order to lawfully operate you may also require permits / approvals from your local government authority, other business units within the department and other State Government agencies prior to commencing any activity at the site.

This permit is not an environmental authority under the *Planning Act 2016*. The conditions of this environmental authority are separate, and in addition to, any conditions that may be on the environmental authority. If a copy of this environmental authority is attached to an environmental authority, it is for information only, and may not be current. Please contact the Department of Environment and Science to ensure that you have the most current version of the environmental authority relating to this site.

Conditions of environmental authority

Environmentally relevant activities	Location
ERA 63 Sewage treatment Threshold (1b) - 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	Lot 1 Plan RP864039 Mount Lindsay Highway, PALEN CREEK QLD 4287

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

Agency interest: General	
Condition number	**Condition**
G1	**Display of Environmental Authority** A copy of this environmental authority must be kept in a location readily accessible to personnel carrying out *the* activity.
G2	**Trained operators** All persons engaged in the conduct of the activity, including but not limited to employees and contract staff, must be: (a) trained in the procedures and practices necessary to: (i) comply with the conditions of this environmental authority, and (ii) prevent environmental harm during normal operation and emergencies; or (b) under the close supervision of such a trained person.
G3	**Records** Any record or document required to be kept by a condition of this environmental authority must be kept at the premises to which this environmental authority relates for a period of at least five (5) years and be available for examination by an authorised person. The record retention requirements of this condition will be satisfied if any daily and weekly records are kept for a period of at least three (3) years and these records are then kept in the form of annual summaries after that period.
G4	**Calibration** All instruments and measurement devices used for the measurement or monitoring of any parameter under any condition of this environmental authority must be calibrated, and appropriately operated and maintained.
G5	**Site Based Management Plan** By 1 August 2000 the operator of the ERA must develop and implement an effective and appropriate Site Based Management Plan which details how the operator of the ERA will manage the actual and potential environmental impacts resulting from the carrying out of the environmentally relevant activity.

G6	The Site Based Management Plan must address at least the following matters: (a) routine operating procedures to prevent or minimise environmental harm, however occasioned or caused during normal operations; (b) maintenance practices and procedures; (c) contingency plans and emergency procedures to deal with foreseeable risks and hazards including corrective responses to prevent and mitigate environmental harm (including any necessary site rehabilitation), (d) monitoring of the release of contaminants into the environment including procedures, methods, record keeping and notification of results; (e) assessment of the environmental impact of any releases of contaminants into the environment including procedures, methods, record keeping and notification of results, (f) methods for on-site sludge disposal including handling and dewatering; (g) handling of environmental complaints; (h) keeping and production of environmental records and reports; (i) lines and methods of communication to be utilised for communication of procedures, plans, incidents, potential environmental problems and results, including a feedback mechanism to ensure that management is made aware of potential environmental problems and any failure of procedures adopted; and (j) staff training and awareness of environmental issues related to the operation of the environmentally relevant activities, including responsibilities under the *Environmental Protection Act.*
G7	A copy of the Site Based Management Plan and any subsequent amendment of the Site Based Management Plan must be kept at the premises to which this environmental authority relates and be available for examination by an authorised person on request.
G8	A copy of the Site Based Management Plan must be provided to the **administering authority** within 30 days of its completion.
G9	**Management Plan for Blue-Green Algae** By 1 August 2000 the operator of the ERA must develop and implement an effective and appropriate plan for the management of blue-green algae within the effluent storage pond. The plan should detail how the operator of the ERA will manage the actual and potential environmental impacts resulting from any occurrence of blue-green algal outbreaks.
G10	The Management Plan for Blue-Green Algae must address at least the following matters: (a) weekly inspections to detect the presence of any bloom; (b) notification and reporting if blue-green algae blooms are confirmed; (c) the collection and analysis of samples if a bloom is suspected; and (d) remedial actions.
G11	A copy of the Management Plan for Blue-Green Algae must be provided to the **administering authority** within 30 days of its completion.
G12	A copy of the Management Plan for Blue-Green Algae must be kept at the premises to which this environmental authority relates.
G13	The operator of the ERA must not implement a Management Plan for Blue-Green Algae or amend a Management Plan for Blue-Green Algae where such implementation or amendment would result in a contravention of any condition of this environmental authority.

G14	The operator of the ERA must submit details of any amendment to the Management Plan for Blue-Green Algae to the **administering authority** with the **annual return** which immediately follows the enactment of any such amendment.
Agency interest: Air	
Condition number	**Condition**
A1	Notwithstanding any other condition of this environmental authority, no release of contaminants from the premises to which this environmental authority relates is to cause a **noxious** or **offensive** odour beyond the boundaries of the premises to which this environmental authority relates.
Agency interest: Water	
Condition number	**Condition**
W1	**Release of Contaminants to Waters** Contaminants must not be directly or indirectly released from the premises to which this environmental authority relates to any waters or the bed and banks of any waters except: (a) as permitted under the **water** schedule; or (b) as permitted under the stormwater management schedule; or (c) to a sewer as permitted or otherwise agreed from time to time by the relevant Local Government.
W2	Notwithstanding development condition **W1** the operator of the ERA may release contaminants via deep drainage in accordance with condition **L7**.
W3	**Pumps** Pumps whose failure would or would be likely to result in a direct or indirect release of contaminants to **waters** must be fitted with stand-by pumps and pump-failure alarms.
W4	**Release of Contaminated Stormwater Runoff** Except as otherwise provided by the conditions of the stormwater management schedule and the **water** schedule of this environmental authority, the ERA must be carried out by such practicable means necessary to prevent and/or minimise the release or likelihood of release of contaminated runoff from the premises to which this environmental authority relates to any stormwater drain or **waters** or the bed or banks of any such waters. "Contaminated runoff' for the purposes of this condition means stormwater and/or stormwater runoff that contains contaminants that may cause environmental harm.
W5	**General** 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 external stormwater drainage system, roadside gutter or **waters**.
W6	A suitable system of diversion banks and or diversion drains must be established and maintained immediately up-slope of the irrigation area to exclude stormwater run-off from any areas used for the storage and/or treatment of contaminants or wastes.

<table>
<tr><th colspan="2">Agency interest: Land</th></tr>
<tr><th>Condition number</th><th>Condition</th></tr>
<tr><td>L1</td><td>Release of Contaminants to Land

The only contaminants to be released to land are sewage effluent from the wet weather storage.</td></tr>
<tr><td>L2</td><td>Quantity of Contaminants Released to Land

The defined contaminant release area is described as the Irrigation Areas "A", "B", "C" and "D" as marked on the Plan of Development in Schedule J of this environmental authority.</td></tr>
<tr><td>L3</td><td>The total quantity of contaminants released daily to the contaminant release area must not exceed 490kL per day.</td></tr>
<tr><td>L4</td><td>A minimum of 12 hectares of land must be provided for the treated sewage effluent contaminant release area.</td></tr>
<tr><td>L5</td><td>Quality of Contaminants Released from the Sewage Treatment Plant

The contaminants released from the sewage treatment plant must comply, at the sampling and in-situ measurement point specified in condition H14, with each of the release limits specified in Table 1 for each quality characteristic.

TABLE 1 - RELEASE QUALITY CHARACTERISTIC LIMITS

<table>
<tr><th>QUALITY CHARACTERISTICS</th><th>RELEASE LIMIT</th><th>LIMIT TYPE</th></tr>
<tr><td>5-day Biochemical Oxygen Demand (inhibited)</td><td>20 mg/L</td><td>80 percentile compliance</td></tr>
<tr><td>5-day Biochemical Oxygen Demand (inhibited)</td><td>30 mg/L</td><td>maximum</td></tr>
<tr><td>Suspended Solids</td><td>30 mg/L</td><td>80 percentile compliance</td></tr>
<tr><td>Suspended Solids</td><td>. 60 mg/L</td><td>maximum</td></tr>
<tr><td>Total Nitrogen (as Nitrogen)</td><td>10.0 mg/L</td><td>50 percentile compliance</td></tr>
<tr><td>Total Nitrogen (as Nitrogen)</td><td>30.0 mg/L</td><td>maximum</td></tr>
<tr><td>Total Phosphorus</td><td>9.0 mg/L</td><td>50 percentile compliance</td></tr>
<tr><td>Total Phosphorus</td><td>15.0 mg/L</td><td>maximum</td></tr>
<tr><td>pH</td><td>6.5 to 8.5</td><td>range</td></tr>
<tr><td>Dissolved Oxygen</td><td>2.0 mg/L</td><td>minimum</td></tr>
<tr><td>Free Chlorine Residual</td><td>0.7 mg/L</td><td>maximum</td></tr>
</table></td></tr>
</table>

	<table><tr><td>Faecal Coliforms</td><td>150 organisms per 100 mL as a **median** value (**minimum** of 5 samples taken at not less than half-hourly intervals in any one day, with 4 out of the 5 samples containing less than 600 organisms per 100 mL)</td></tr></table>
L6	Notwithstanding the quality characteristic limits specified in **Table 1** of the **land** application schedule the contaminants must not have any properties nor contain any organisms or contaminants in concentrations which are capable of causing environmental harm.
L7	**Contaminant Release Precautions** Notwithstanding condition **L3** once monthly applications of 20 mm of irrigation water may be applied only when soil moisture is below 80% of field capacity. Irrigation of wastewater must not occur when soil moisture exceeds 80% of field capacity.
L8	The soil moisture field capacity measurements required by condition **L7** must be measured using an appropriate method (eg: tensiometers) from at least six representative sites. Soil moisture levels must be recorded prior to each irrigation event permitted by condition **L7**.
L9	The contaminant release area must be maintained in a proper and efficient condition so as to provide adequate assimilation, percolation, evaporation and transpiration of the released contaminants
L10	Public access to any contaminant release area must be denied during the release of contaminants to land and until the release area has dried.
L11	Notices warning the public not to use or drink the release of contaminants to **land** must be prominently displayed and must be maintained in a visible and legible condition.
L12	Pipelines and fittings for the release of contaminants to **land** must be clearly identified. Standard water taps, hoses and cocks must not be fitted to contaminant release pipelines, and the contaminant release system must not be connected to other service pipelines. Lockable valves or removable handles must be fitted to the contaminant release pipelines where there is public access to the contaminant release areas.
L13	Spray from any release of contaminants to **land** must not drift beyond the boundaries of the premises to which this environmental authority relates.
L14	The release of contaminants to **land** must not be carried out within 50 metres of any watercourse contaminant storage.
L15	When weather conditions or soil conditions preclude the release of contaminants, the contaminants must be directed to a wet weather storage pond.
L16	The wet weather storage pond must be designed to hold a volume equivalent to approximately 158 days storage based on 107 Kilolitres per day wastewater generation rate.
L17	All ponds used for the storage or treatment of contaminants or wastes must be installed and maintained to prevent any discharge through the bed or banks of the pond from causing environmental harm in any waters (including groundwater's).
L18	All ponds used for the storage or treatment of contaminants or wastes must be constructed and maintained to ensure the stability of the ponds' construction.
L19	Ponds or other structures used for the storage or treatment of contaminants or wastes, including any associated pumps and control equipment, must not be located in any area below the one in ten year flood level.
L20	Suitable banks and/or diversion drains must be installed and maintained to exclude stormwater runoff from any ponds or other structures used for the storage or treatment of contaminants or wastes.
L21	All detention systems used for the storage or treatment of contaminants or wastes must be constructed and maintained so that a freeboard of not less than 0.2 metres is available for containment of rainfall.

L22	Following rainfall which reduces the freeboard of all detention systems to less than 0.2 metres, the freeboard as required in condition **L21** must be reinstated as soon as practicable by removal of stored effluent via irrigation where not prevented by wet weather conditions.
L23	**Effluent Irrigation Management Plan** By 1 August 2000 the operator of the ERA must develop and implement, an Irrigation Management Plan which details how the operator of the ERA will effectively and appropriately manage the effluent irrigation process so as to ensure that the release of effluent to **land** is carried out in an **environmentally sustainable manner**.
L24	The Irrigation Management Plan must detail how irrigation is to be managed and scheduled having regard to at least the following: (a) soil moisture results; (b) weather forecasts and climate monitoring results; (c) irrigation records for each effluent disposal area; (d) characteristics and quantity of contaminants which are applied, including biochemical oxygen demand, suspended solids, **total nitrogen**, **total phosphorus**, dissolved oxygen, pH, faecal coliforms; (e) characteristics of the soil in the contaminated release area, including pH, **total nitrogen**; **total phosphorus**, exchangeable sodium percentage, specific conductance or electrical conductivity, potassium, chloride, calcium, magnesium, sodium; (f) type of vegetation intended to be grown in the contaminant release area, (g) cropping practice for each effluent disposal area; (h) management practices for the irrigation polishing dam to prevent algae blooms; (i) sustainable hydraulic loadings for the contaminant release area; (j) sustainable biological oxygen demand loadings for the contaminant release area; (k) sustainable nitrogen loadings for the contaminant release area; (l) sustainable phosphorous loadings for the contaminant release area; (m) sustainable salt loadings for the contaminant release area; and (n) production of appropriate records and reporting of results and environmental issues.
L25	A copy of the Irrigation Management Plan and any subsequent amendment of the Site Based Management Plan must be kept at the premises to which this environmental authority relates and be available for examination by an authorised person on request.
L26	A copy of the Irrigation Management Plan must be provided to the **administering authority** within 30 days of its completion.
L27	The operator of the ERA must submit details of any amendment to the Irrigation Management Plan to the **administering authority** with the **annual return** which immediately follows the enactment of any such amendment.

<table>
<tr><th colspan="2">Agency interest: Noise</th></tr>
<tr><th>Condition number</th><th>Condition</th></tr>
<tr><td>N1</td><td>
Emission of noise

In the event of a complaint about noise that constitutes intrusive noise being made to the administering authority, that the administering authority considers is not frivolous or vexatious, then the emission of noise from the premises to which this environmental authority relates must not result in levels greater than those specified in Table 2.

TABLE 2

<table>
<tr><th colspan="2">NOISE LIMITS AT A NOISE SENSITIVE PLACE</th></tr>
<tr><th>Period</th><th>Noise level at a Noise Sensitive Place Measured as the Adjusted Maximum Sound Pressure Level

$A_{max\ adj,\ T}$</th></tr>
<tr><td>7am – 6pm</td><td>Background noise level plus 5 dB (A)</td></tr>
<tr><td>6pm – 10 pm</td><td>Background noise level plus 5 dB (A)</td></tr>
<tr><td>10pm – 7am</td><td>Background noise level plus 3 dB (A)</td></tr>
<tr><th colspan="2">NOISE LIMITS AT A COMMERICAL PLACE</th></tr>
<tr><th>Period</th><th>Noise Level at a Commercial Place measured as the Adjusted Maximum Sound Pressure Level

$A_{max\ adj,\ T}$</th></tr>
<tr><td>7am – 6pm</td><td>Background noise level plus 10 dB (A)</td></tr>
<tr><td>6pm – 10pm</td><td>Background noise level plus 10 dB (A)</td></tr>
<tr><td>1pm – 7am</td><td>Background noise level plus 8 dB (A)</td></tr>
</table>
</td></tr>
<tr><td>N2</td><td>
Noise Monitoring

For the purposes of checking compliance with condition N1, monitoring and recording of the noise levels from the activity must be undertaken for the following descriptors, characteristics and conditions:

(a) $L_{Amax\ adj,\ T;}$
(b) $L_{Abg,\ T}$ or $L_{A90,\ T;}$
(c) $L_{AN,\ T}$ (where N equals statistical levels of 1, 10, 50. 90 and 99);
(d) Max $L_{pA,T}$;
(e) $L_{Aeq,T;}$
(f) the level and frequency of occurrence of impulsive or tonal noise;
(g) atmospheric conditions including temperature, relative humidity and wind speed and direction; and
(h) effects due to extraneous factors such as traffic noise.
</td></tr>
<tr><td>N3</td><td>Noise monitoring must also be undertaken to investigate any complaint of intrusive noise upon receipt of a written request from the administering authority to carry out such monitoring.</td></tr>
<tr><td>N4</td><td>The method of measurement and reporting of noise levels must comply with the Department of Environment and Science, Noise Measurement Manual, version 4, August 2013, or more recent editions or supplements to that document as become available.</td></tr>
</table>

N5	The measurement and reporting of noise levels must be undertaken by a person or body possessing appropriate experience and qualifications to perform the required measurements.
N6	Records must be kept of the results of all monitoring of noise levels and other information required to be recorded in conjunction with such monitoring for a period of at least five (5) years.
Agency interest: Waste	
Condition number	**Condition**
WS1	**General** The operator of the ERA must not: (a) burn waste at or on the premises to which this environmental authority relates; (b) allow waste to burn or be burnt at or on the premises to which this environmental authority relates; nor (c) remove waste from the premises to which this environmental authority relates and burn such waste elsewhere other than an appropriate licensed waste disposal facility that can lawfully burn such waste.
WS2	**Off Site Movement** All transport of **regulated waste** generated in carrying out the ERA must be transported by a proper and appropriate licensed waste transporter that can lawfully transport such waste.
WS3	All disposal of **regulated waste** generated in carrying out the ERA must be to a proper and appropriate licensed waste disposal facility that can lawfully accept such waste or to a facility that can lawfully and appropriately reuse and/or recycle such waste, except as specifically provided for under the development conditions of this environmental authority.
WS4	Where **regulated waste** is removed from the premises to which this environmental authority relates (other than by a release as permitted under another schedule of this environmental authority), the operator of the ERA 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.)
WS5	**Notification of Improper Disposal of Regulated Waste** If the operator of the ERA becomes aware that a person has removed **regulated waste** from the premises to which this environmental authority relates and disposed of the **regulated waste** in a manner which is not authorised by this environmental authority or is improper or unlawful, then the operator of the ERA must, as soon as practicable, notify the **administering authority** of all relevant facts, matters and circumstances known concerning the disposal.

Agency interest: Self-Monitoring and Reporting	
Condition number	**Condition**
H1	**Complaint Recording** All complaints received by *the* operator of the ERA relating to releases of contaminants from operations at the premises to which this environmental authority relates must be recorded in a log and kept with the following details: (a) time, date and nature of complaint; (b) type of communication (telephone, letter, personal etc.); (c) name, contact address and contact telephone number of complainant (Note: if the complainant does not wish to be identified then "Not identified" is to be recorded); (d) response and investigation undertaken as a result of the complaint; (e) name of person responsible for investigating complaint; and (f) action taken as a result of the complaint investigation and signature of responsible person.
H2	**Incident Recording** 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; (b) any uncontrolled release of contaminants reasonably likely to cause environmental harm; (c) any emergency involving the release of contaminants reasonably likely to cause material or serious environmental harm requiring the use of firefighting equipment; and (d) the hours of operation of the plant.
H3	The record required by condition **H2** must be maintained for a period of not less than five (5) years.
H4	The complaints record required by condition **H1** must be maintained for a period of not less than five (5) years.
H5	**Notification of Emergencies and Incidents** Where the operator of the ERA has not given notification to the **administering authority** under section 37 of the ***Environmental Protection Act 1994***, as soon as practicable after becoming aware of any emergency or incident which results in the release of contaminants not in accordance, or reasonably expected to be not in accordance with the development conditions of this environmental authority, the operator of the ERA must notify the administering authority of the release by telephone or facsimile.
H6	Where the operator of the ERA has not given notification to the **administering authority** under section 37 of *the* ***Environmental Protection Act 1994***, the notification of emergencies or incidents as required by condition **H24** must include but not be limited to the following: (a) the **holder** of the environmental authority; (b) the location of the emergency or incident; (c) the number of the environmental authority; (d) the name and telephone number of the designated contact person; (e) the time of the release; (f) the time the **holder** of the environmental authority became aware of the release; (g) the suspected cause of the release; (h) the environmental harm caused, threatened, or suspected to be caused by the release; and (i) actions taken to prevent further any release and mitigate any environmental harm caused by the release.

H7	Where the operator of the ERA has not given notification to the **administering authority** under section 37 of the ***Environmental Protection Act 1994***, not more than fourteen (14) days following the initial notification of an emergency or incident, the **holder** of the environmental authority must provide written advice of the information supplied in accordance with condition **H6** in addition to: (a) proposed actions to prevent a recurrence of the emergency or incident; (b) outcomes of actions taken at the time to prevent or minimise environmental harm; and (c) the results of any environmental monitoring performed.
H8	**Exception Reporting** The operator of the ERA must notify the **administering authority** in writing of any monitoring result which indicates an exceedance of any environmental authority limit within twenty-eight (28) days of completion of analysis.
H9	The written notification required by condition H8 above must include: (a) the full analysis results; (b) details of investigation or corrective actions taken; and (c) any subsequent analysis.
H10	**Monitoring Reporting** The operator of the ERA must ensure that the results of all monitoring performed in accordance with this environmental authority for the period covered by the return must be kept at the premises to which this environmental authority relates.
H11	Contaminant release quality pertaining to the yearly period, compiled, collected or recorded in accordance with condition **H13,** shall be presented: (a) in a tabular format, showing: (b) date, times, and day of week sampled; (c) all raw data; (d) any exceedance of levels of all parameters specified in condition **L5** - **Table 1**; (e) **maximum** and **minimum** values for parameters specified in condition **H13 -Table 3**; and (f) graphically showing data referred to in part (i) of this condition versus time.
H12	Contaminant release quantity pertaining to the yearly period, compiled, collected or recorded in accordance with condition **H15,** shall be presented: (a) in a tabular format, showing: (i) date, times, and day of week sampled; (ii) all raw data, and daily flow calculated from the collected data. (iii) graphically showing data referred to in part (i) of this condition versus time.

H13 **Monitoring of Contaminant Releases from the Sewage Treatment Plant to the Contaminant Release Area**

The operator of the ERA is responsible for the making of determinations and keeping of records of the quality of the contaminants released from the sewage treatment plant for the quality characteristics and at the frequency specified in **Table 3**:

Table 3 From treatment plant to wet weather storage

QUALITY CHARACTERISTICS	UNITS	MONITORING FREQUENCY
5-day Biochemical Oxygen Demand (inhibited)	mg/L	Monthly
Suspended Solids	mg/L	Monthly
Ammonia (as Nitrogen)	mg/L	Monthly
pH	pH scale	Monthly
Dissolved Oxygen	mg/L	Monthly
Total Nitrogen (as Nitrogen)	mg/L	Monthly
Total Phosphorus (as Phosphorus)	mglL	Monthly
Free Chlorine Residual	mg/L	Monthly
Faecal Coliforms	cfu/100 mL	Monthly

H14 **Sampling and in-situ monitoring Points Details**

Determinations of the quality of contaminants released to check conformity with the release quality characteristics specified in condition **L5 -Table 1** of this environmental authority must be undertaken at the sampling and in-situ measurement point described as the outlet of the effluent polishing lagoon for chlorine residual, **total nitrogen**, **total phosphorus**, and the outlet of the chlorine contact tank for all other parameters.

Total nitrogen and **total phosphorus** levels shall also be monitored at the outlet chlorine contact tank for process improvement purposes as per condition **H13 - Table 3**.

H15 A flow meter must be installed in such a manner as to monitor the hydraulic flow from the irrigation pump as soon as practicable following any release of contaminants to the irrigation area the following must be recorded:

(a) the hydraulic flow rate; and
(b) date of release.

H16 **Quality Determinations**

All determinations of the quality of contaminants released to **land** must be made in accordance with methods prescribed in the Department of Environment and Sciences, Water Quality Sampling Manual, Version 2, published June 2010, or more recent additions or supplements to that document as such become available.

H17 All determinations of the quality of contaminants released must be performed by a person or body possessing appropriate experience and qualifications to perform the required measurements.

H18

Contaminant Release Area Monitoring Program

The operator of the ERA must develop and implement a Contaminant Release Area Monitoring Program to effectively monitor the condition of the **land** to which contaminants are released**.**

H19

Monitoring required by condition **H18** shall include the taking of top soil and sub-soil samples from at least five (5) representative sites for the quality characteristics and at the frequency specified in **Table 4.**

Table 4 – Quality Characteristics

Quality Characteristics	Units	Monitoring Frequency
pH	**pH scale**	**On commencement and thereafter annually**
Total Nitrogen (as Nitrogen)	**mg/kg**	**On commencement and thereafter annually**
Total Phosphorous (as Phosphorous)	**mg/kg**	**On commencement and thereafter annually**
Exchangeable Sodium Percentage	**calculated**	**On commencement and thereafter annually**
Specific Conductance or electrical conductivity	**µS/cm**	**On commencement and thereafter annually**
Exchangeable cations	**mEq/100g**	**On commencement and thereafter annually**
Potassium	**mg/kg**	**On commencement and thereafter annually**
Chloride	**mg/kg**	**On commencement and thereafter annually**
Total Calcium	**mg/kg**	**On commencement and thereafter annually**
[Total Magnesium	**mg/kg**	**On commencement and thereafter annually**
Total Sodium	**mg/kg**	**On commencement and thereafter annually**

H20

Not more than six (6) calendar months after the date of issue of this environmental authority, the operator of the ERA must submit a proposal for the Contaminant Release Area Monitoring Program to the **administering authority**.

H21

The proposal for the Contaminant Release Area Monitoring Program must include but not be limited to the following:

(a) the locations of monitoring stations including soil moisture and soil types, and depths;
(b) the proposed vegetation characteristics to be monitored; and
(c) harvesting practice to ensure the proper maintenance of the irrigation area.

H22	The operator of the ERA must submit with the **annual return** a report on the Contaminant Release Area Monitoring Program including an assessment of the impact and sustainability of the application of treated sewage effluents to the contaminant release area. This report shall include an interpretation of the results and conclusions by an expert in the field of effluent **land** disposal.
H23	**Receiving Surface Water Monitoring** The operator of the ERA is responsible for the making of determinations and keeping of records of the quality of the receiving surface **waters** at, at least, in situ monitoring and sampling points described as Sl, S2 and S3, and depicted in Plan of Development**.**
H24	The Surface Water Monitoring Program referred to in condition **H23** must be undertaken for, at least, for the quality characteristics and at the frequency specified in **Table 5**.

Table 5 - Quality Characteristics/ Monitoring Frequency

Quality Characteristics	**Units**	**Monitoring Frequency**
5-day Biochemical Oxygen Demand (inhibited)	**mg/L**	On commencement and thereafter every 3 Months
Suspended Solids	**mg/L**	On commencement and thereafter every 3 Months
Ammonia (as Nitrogen)	**mg/L**	On commencement and thereafter every 3 Months
pH	**pH scale**	On commencement and thereafter every 3 Months
Dissolved Oxygen	**mg/L**	On commencement and thereafter every 3 Months
Total Nitrogen (as Nitrogen)	**mg/L**	On commencement and thereafter every 3 Months
Total Phosphorus (as Phosphorus)	**mg/L**	On commencement and thereafter every 3 Months
Free Chlorine Residual	**mg/L**	On commencement and thereafter every 3 Months
Faecal Coliforms	**cfu/100 mL**	On commencement and thereafter every 3 Months

Definitions

Key terms and/or phrases used in this document are defined in this section and **bolded** throughout this document. 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.

Act means the *Environmental Protection Act 1994*.

administering authority means the Department of Environment and Science or its successor.

annual return means the return required by the annual notice (under section 68 of the *Environment Protection Act , 1994*) for the section 60J licence that applies to the environmental authority.

background noise level means either:

(a) $\mathbf{L_{A90,\ T}}$ 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

(b) $\mathbf{L_{Abg,\ T}}$ being the arithmetic average of the **minimum** readings measured in the absence of the noise under investigation during a representative time period of not less than 15 minutes, using Fast response.

cfu means colony forming units.

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) a house, unit, motel, nursing home or other building or part of a building;
(b) a caravan, mobile home or other vehicle or structure on **land**;
(c) a watercraft in a marina.

environmentally sustainable manner means a manner in which the likelihood of environmental harm being caused is minimised. The term includes ensuring that the capacity of the irrigation area to assimilate the release of contaminants on an ongoing basis is maintained and that adverse effects to environmental values of **waters**, ecological health and public amenity and safety are not likely.

holder means the owner, the owners successors in title and any occupier of the premises to which this environmental authority relates.

intrusive noise means noise that, *because* of its frequency, duration, level, tonal characteristics, impulsiveness or vibration -

(a) is clearly audible to, or can be felt by, an individual; and
(b) annoys the individual; and
(c) in determining whether a noise annoys an individual and is unreasonably intrusive, regard must be had to Australian Standard 1055.2 - 2018 Acoustics - Description and Measurement of Environmental Noise Part 2 Application to Specific Situations.

$\mathbf{L_{Amax,\ adj,\ T}}$ means the average **maximum** A-weighted sound pressure level, adjusted for noise character and measured over a time period of not less than 15 minutes, using Fast response**.**

$\mathbf{M_{ax}\ L_{am}}$**, T** means the **maximum** A-weighted sound pressure level measured over a time period of not less than 15 minutes, using Fast response.

land means **land** excluding waters and the atmosphere.

mg/L means milligrams per litre.

median means the middle value, where half the data are smaller, and half the data are larger. If the number of samples is even, the **median** is the arithmetic average of the two (2) middle values.

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

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

noise sensitive place means any of the following places:

(a) a dwelling;
(b) a library, childcare centre, kindergarten, school, college, university or other educational institution;
(c) a hospital, surgery or other medical institution;
(d) a protected area, or an area identified under a conversation plan as a critical habitat or an area of major interest, under the *Nature Conservation Act 1992;*
(e) a marine park under the *Marine Parks Act 2004;*
(f) a park or garden that is open to the public (whether or not on payment of money) for use other than for sport or organised entertainment.

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.

regulated waste means non-domestic waste mentioned in Schedule 7 of the *Environmental Protection Regulation 2008* (whether or not it has been treated or immobilised), and includes.

(a) for an element - any chemical compound containing the element; and
(b) anything that has contained a **regulated waste.**

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.

total Nitrogen means the sum of Organic Nitrogen, Ammonia, Nitrite plus Nitrate, as **mg/L** of Nitrogen.

waters includes the bed and/or banks of any water(s), stormwater runoff and any part of a river, stream, lake, lagoon, pond, dam, swamp, wetland, unconfined surface water, underground water, unconfined water, natural or artificial watercourse, non-tidal or tidal **waters** (including the sea), stormwater channel, stormwater drain, roadside gutter.

50 percentile compliance means that the **median** value of the measured values in ranked order of the quality characteristic is not to exceed the stated release limit for any twelve (12) consecutive samples where:

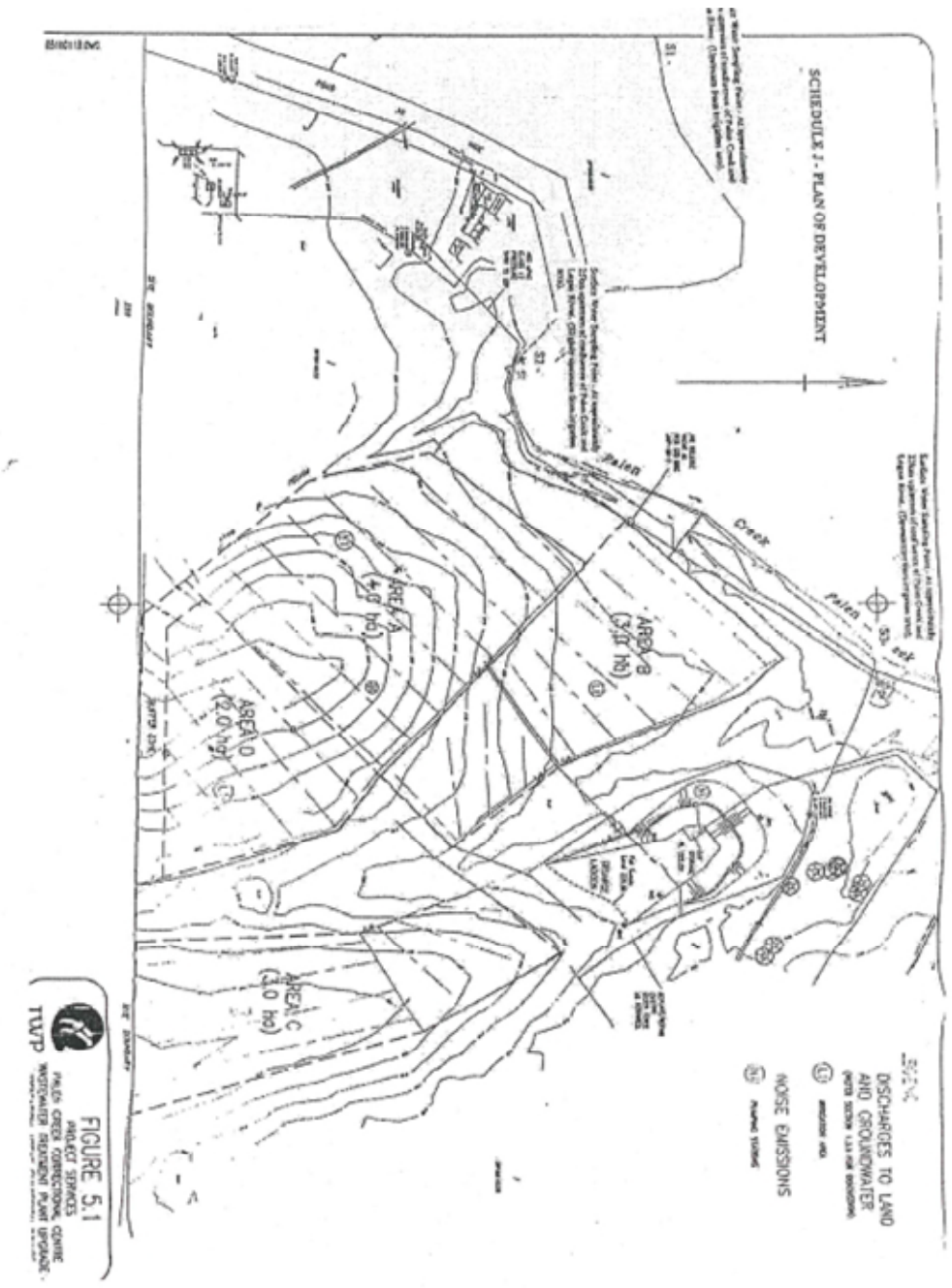
(a) the consecutive samples are taken over a one year period;
(b) the consecutive samples are taken at approximately equal periods; and
(c) the time interval between the taking of each consecutive sample is not less than twenty-five days.

80 percentile compliance means that not more than three (3) of the measured values of the quality characteristic are to exceed the stated release limit for any twelve (12) consecutive samples where.

(a) the consecutive samples *are* taken over a one year period;
(b) the consecutive samples are taken at approximately equal periods; and
(c) the time interval between the taking of each consecutive sample is not less than twenty-five days.

END OF PERMIT

SCHEDULE J - PLAN OF DEVELOPMENT



End of Development Conditions for Schedule J