Permit

Environmental Protection Act 1994

Environmental authority EPPR01383313

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

Environmental authority number: EPPR01383313

Environmental authority takes effect on 22 August 2019

Environmental authority holder(s)

Name(s)	Registered address
AAFI (QLD) Pty Ltd	356 Thomas Rd UPPER LOCKYER QLD 4352 Australia

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 34/CA31381

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.

Mark Franco
Department of Environment and Science
Delegate of the administering authority
Environmental Protection Act 1994

Date issued: 22 August 2019

Enquiries:
Extraction, Energy and Chemical Industries Assessment
Department of Environment and Science
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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)

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)

Conditions of environmental authority

Location: 356 Thomas Road UPPER LOCKYER QLD 4352

Lot / Plan: Lot 34 Plan CA31381

Relevant activity:

63-(1a)(i) Sewage treatment >21 to 100EP - IT or IR

Approved Plans:

Document No.	Document Name	Date
11/104	On site Facility Plan	10 June 2011
11/104	Land Application Area Plan	10 June 2011

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

Agency interest: General	
Condition number	**Condition**
G1	This approval authorises the construction and operation of a sewage treatment plant with a peak design capacity of 20,000 litres or 100 equivalent persons (EP) based on 200 litres per EP per day.
G2	**Prevent or minimise likelihood of environmental harm:** In carrying out the activity to which this approval relates, all reasonable and practical measures must be taken to prevent or minimise the likelihood of environmental harm being caused.
G3	**Maintenance of measures, plant and equipment:** Any person undertaking an activity to which this approval relates must do all of the following - (a) install and operate all measures, plant and equipment necessary to ensure compliance with the conditions of this approval; (b) maintain all measures, plant and equipment in a proper and efficient condition; and (c) operate such measures, plant and equipment in a proper and efficient manner.

G4	**Records:** If a condition of this approval requires the person undertaking the activity to which this approval relates to make or keep a record or document, or prepare a document' , the person must do all of the following - (a) keep the record or document at the approved place; (b) keep the record or document in a place that is accessible by all persons engaged in the activity; (c) produce the record or document for inspection by an authorised person or the administering authority for inspection if requested; (d) for each document or record made or created in response to a monitoring requirement, reporting requirement, investigation or incident - keep the record for a minimum of five (5) years from the date the last record is made or created; and (e) if the record or document is sent (in any form) to the administering authority - keep a copy of the record or document in accordance with paragraphs (a) to (d).
G5	**Copy of development approval must be kept at approved place:** The person undertaking the activity to which this approval relates must keep a copy of this approval in hardcopy format.
G6	**Site Based Management Plan:** The person undertaking the activity to which this approval relates must keep and implement a site-based management plan (SBMP) that provides for the management of the actual and potential environmental impacts resulting from the carrying out of the activity to which this approval relates, and includes the following - (a) the functions and responsibilities of person(s) engaged in the activity (either by name or position); (b) day-to-day procedures for the management of the activity specifically with respect to the management of aspects of the activity that cause, or may cause, a release of contaminants to the environment; **Department of Environment** (c) the processes and procedures for manual handling and storage of chemicals (if any) used in the activity to which this approval relates; (d) obligations for monitoring the operation and performance of plant or equipment associated with the activity, and reporting particular non-compliance to the administering authority under a condition of this approval or otherwise in accordance with any legally imposed duty to notify (however described) under the *Environmental Protection Act 1994;* (e) describes training requirements for all persons engaged in the activity, including· general environmental awareness, incident response, reporting and emergency procedures; (f) the location and instruction for the operation and maintenance of all equipment used for clean-up of any spillages; (g) the location of all overflow structures attached to the sewage treatment plant; (h) investigation and response protocols to be utilised by persons engaged in the activity in response to any emergency, incident or event (including non-compliance events), the circumstances in which those protocols are to be applied, and describing escalation criteria for such events; (i) the sampling and analysis regimes under the conditions of this approval, and identifying the person(s) responsible for taking compliance samples; (j) procedures for dealing with any abnormal situation or operation of the infrastructure used in the activity to which this approval relates (including any release of contaminants to the environment through an uncontrolled release, accident, incident or emergency or any situation or event that indicates non-compliance with the conditions of this approval has occurred or may occur); and (k) response procedures for employees undertaking the activity arising from any emergency, incident or event (including any abnormal operating condition or circumstance observed or recorded in connection with the activity), including any protocols for the investigation of any potential environmental harm arising from such emergencies, incidents or events.

G7	The person undertaking the activity to which this approval relates must- (a) review and update the SBMP annually to ensure that it remains current, is consistent with the conditions of this approval, and reflects contemporary practice at the approved place; and (b) ensure a record of the review containing at least the following information is kept- (i) the name of the person who undertook the review; (ii) the position the person who undertook the review holds in the organisation's hierarchy, or if the person is an external consultant, the person's position in that consultancy; (iii) the date on which the review was undertaken; (iv) any findings of the review; and (v) any actions implemented as a result of such findings, including time-lines by when such actions will be implemented.
G8	The person undertaking the activity to which this approval relates must give the administering authority a copy of the SBMP - (a) prior to commencing operation of the sewage treatment plant; and (b) if the plan in paragraph (a) is amended or replaced[2] - within 14 days of the plan being amended or replaced. *[2]Note: This requirement may be satisfied by giving the administering authority a copy of the SBMP in electronic format.*
G9	The person undertaking the activity to which this approval relates must ensure the SBMP is kept in hardcopy format.
G10	**Equipment Calibration:** All instruments, equipment and measuring devices used for measuring or monitoring in accordance with any condition of this approval must be calibrated , and appropriately operated and maintained in accordance with the manufacturer's instructions.
G11	**Monitoring:** A competent person(s) must conduct any monitoring required by this approval.
G12	**Annual Monitoring Report:** An annual monitoring report, which includes the following information, must be prepared and submitted once in each period of one year, in hardcopy format (or another format approved by the administering authority)[3]- (a) a summary of the previous twelve (12) months monitoring results or recordings obtained under any 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 the limits in this approval and to relevant prior results; (b) an evaluation and explanation of the data from any monitoring programs; (c) a summary of the record of equipment failures or events recorded for any site under this approval relating to condition G18(a); (d) an outline of actions taken or proposed to minimise the environmental risk from any deficiency identified by the monitoring or recording programs; and (e) a summary of any trade waste agreements entered into or amended during the year, including the nature of the industry. *[3]Monitoring data that is submitted electronically to the administering authority in accordance with condition G12 does not need to be re-submitted in hardcopy format with the annual return. Submission of monitoring data in electronic format does not alleviate the obligation to notify the administering authority of any specific non-compliance required under another condition of this approval. Also, note that the administering authority is required, under section 540 of the Environmental Protection Act 1994 to place the results of a monitoring program on a public register, and that these results may be supplied to another person, including a third party.*
G13	**Trained and Experienced Operator(s):** The daily operation of the sewage treatment plant and any associated pollution control equipment must be carried out by a person(s) with appropriate experience or qualifications to ensure the effective operation of that treatment system and control equipment.

G14	**Notification of certain releases or events to be supplied to the administering authority:** The person undertaking the activity to which this approval relates must notify the administering authority as soon as practicable after becoming aware of any event or release of a type mentioned in condition G15 unless one or more of the following applies - (a) the administering authority has been given notice of the release or event under any statutorily imposed duty to notify under the *Environmental Protection Act 1994;* (b) the release or event is done in compliance with an emergency direction or a statutory notice or obligation under the *Environmental Protection Act* 1994 given or issued to the person; (c) the administering authority waives, in writing, the requirement to give such notification for the specific event or release, or provides a general written exemption(4, 5) for giving notification of events or releases of the class of events into which the event or release falls. *4 Any exemption under this condition may be amended or withdrawn by the administering authority at any time.* *5 Section 76 of the Justices Act 1899 (Proof of negative etc.) applies to an exemption under this condition .*
G15	For condition G14, the events or releases are any such events or releases that are one or more of the following - (a) if monitoring results reveal exceedence against the Final Effluent Release Quality Characteristic Limits specified in condition Land 8 of this approval; (b) if a discharge event results in the release of wastewater or effluent to land or waters other than through the designated discharge point; (c) any fire, explosion, accidental damage or failure in any chemical storage area or involving any chemical delivery system resulting in a discharge of contaminants to land or waters (even if the contamination is contained within the approved place); or (d) any act of malicious damage to the sewage treatment plant or associated infrastructure that may result in failure in one or more systems at the site or may cause a release of contaminants contrary to conditions L1 or W1.
G16	If the person undertaking the activity to which this approval relates is required to give notification to the administering authority of an event or release under condition G14, the notification must include the following information (6) - (a) the name and telephone number of a designated contact person who is able to talk with the administering authority on behalf of the operator in relation to the event or release; (b) the location of the event or release, including a physical address and lot on plan description (if available) and any other information necessary to identify the specific location of the event or release; (c) the time of the event or release (if known); (d) the time the person became aware of the event or release; and (e) if the event or release has impacted, or may impact on, a person's land - whether the person whose land has been, or may be, impacted by the event or release has been notified (7). *Note: The Pollution Hotline (1300 130* 372) *is the most appropriate contact for pollution incidents.* *6 Note: This condition can be satisfied by supplying the information either verbally or in writing.* *7 Note: In certain circumstances, the duty to notify of unlawful serious or material environmental harm under the Environmental Protection Act 1994 obliges the person undertaking the activity that caused, or threatens, the harm to notify affected landholders.*

G17	If the person undertaking the activity to which this approval relates is required under condition G14 to notify the administering authority of an event or release, the person must, within 14 days from the date of the event or release, give the administering authority a written notice that includes the following information (a) the name of the holder of the registration certificate under which the activity to which this approval relates is being undertaken, the approval number and the registration certificate number; (b) the information included in the notification supplied under condition G16, including any updates or changes to that information of which the person has become aware as a result of any incident response or investigation; (c) if the event or release involved a chemical, a material safety data sheet (MSDS) for the chemical; (d) a description of any observed effects on the environment of the release or event, and any anticipated long-term impacts; (e) the suspected cause of the release or event; (f) the results of any environmental sampling performed in relation to the release or event; (g) actions taken to mitigate any environmental harm (including environmental nuisance) caused by the release or event; (h) proposed actions to prevent a recurrence of the release or event; and (i) that the written advice is submitted under a condition of this approvals (8). *8 This statement differentiates a notification made under a condition of this approval and a notification made under a statutorily imposed duty under the Environmental Protection Act 1994.*
G18	The person undertaking the activity to which this approval relates must make a record of the following events - (a) the time, date, duration and description of equipment malfunctions or failure where the malfunction results in the release of contaminants to the environment exceed the Effluent Quality Characteristic Limits specified in condition Land 8 of this approval (whether at the discharge point or another place); or (b) description of any uncontrolled release of contaminants, including an estimation of the volume of contaminants released in the event.
G19	**Spills:** The person undertaking the activity to which this approval relates must ensure that any spillage of regulated wastes or chemicals must be cleaned up as soon as practicable after the spillage event.
G20	**Spill kit:** The person undertaking the activity to which this approval relates must ensure that an appropriate spill kit, protective equipment and relevant operator instructions and emergency procedures or guidelines for the management of wastes and chemicals associated with the activity to which this approval relates are available to employees at the approved place at all times.
G21	**Spill kit training:** The person undertaking the activity to which this approval relates must ensure that all person(s) engaged in the activity to which this approval relates are trained in the use of the spill kit and the emergency procedures and guidelines mentioned in condition G20.
G22	**Alarms:** The sewage treatment plant must be fitted with pump failure alarms and high levels alarms to warn of imminent plant overflow
G23	In the event of a power outage the plant shall not release effluent to the designation irrigation area or have any release of sewage to the environment.
G24	**Alarms to be operable without mains power:** All alarms referred to in condition G22 must be able to operate without mains power.
G25	The person undertaking the activity to which this approval relates must ensure that all alarms associated with the activity to which this approval relates are able to operate for a minimum of 8 hours without mains power.

G26	**Notification of commissioning of upgraded sewage treatment plant:** The person undertaking the activity to which this approval relates must notify the administering authority in writing of the commissioning of the sewage treatment plant within five (5) business days after it is commissioned, advising that the plant has been commissioned and the date it was commissioned.
G27	**General plant layout to conform to plans:** The layout of all fixed infrastructure that may release contaminants that is built and installed after this approval takes effect must conform to the plan comprising in Attachment 1 - On Site Facility Plan, dated 10 June 2011 of this approval.

Agency interest: Air

Condition number	Condition
A1	**Dust or particulate matter during building work:** The release of dust or particulate matter resulting from build ing works from the activity and associated infrastructure to which this approval relates must not cause, or be likely to cause, an environmental nuisance or environmental harm at or beyond the boundary of the approved place.
A2	Subject to condition A3, the dust deposition rate and concentration of PM_{10} or $PM_{2.5}$ must not, during building work associated with the activity to which this approval relates, exceed the limits specified in Table 1 - Dust Deposition Rate and Concentration of Particulate Matter Limits for the contaminant when measured from a nuisance sensitive or commercial place and in accordance with the measurement methods specified in Table 1.

Table 1 - Dust Deposition Rate and Concentration of Particulate Matter Limits

Contaminant	Measure	Limit	Measurement method
Dust	Deposition rate	120mg/m²/day	Australian Standard AS3580.10.1 of 2003 (or more recent editions)
PM_{10}	Deposition rate	50µg/m³/averaged over 24 hours	Either of the following - (a) AS 3580.9.6 of 2003 (or more recent editions); or (b) AS3580.9.7 of 2009 (or more recent editions).
$PM_{2.5}$	Deposition rate	25µg/m³/averaged over 24 hours	Either of the following - (a) AS 3580.9.10 of 2006 (or more recent editions); or (b) AS3580.9.7 of 2009 (or more recent editions).

Note:

- Australian Standard AS 3580.9.6 of 2003 (or more recent editions) Ambient air - Particulate matter – Determination of suspended particulate matter PM_{10} high volume sampler with size-selective inlet -Gravimetric method.
- Australian Standard AS 3580.9.10 of 2006 (or more recent editions) 'Ambient air - Particulate matter - Determination of suspended particulate matter $PM_{2.5}$ low-volume sampler - Gravimetric method.
- Australian Standard AS3580.9.7 of 2009 (or more recent editions) "Ambient air - Particulate matter - Determination of suspended particulate matter - Dichotomous sampler (PM_{10} and $PM_{2.5}$) – Gravimetric method.

A3	If the Air Quality Sampling Manual (however described), published by the Queensland Government from time to time for the purpose of measuring or monitoring compliance with the *Environmental Protection Act* 1994 specifies an alternative measurement method for PM_{10} or $PM_{2.5}$, the concentration of the contaminant for the purposes of compliance with condition A2 may be determined using that method.

A4	Despite condition G3, the person undertaking the activity to which this approval relates is required to install equipment to measure the dust deposition rate or the concentration of particulate matter (PM_{10} or $PM_{2.5}$,) for condition A2 only if directed in writing by the administering authority or an authorised person to undertake monitoring.
A5	Landscaping or revegetation must be undertaken to stabilise all exposed surfaces to prevent dust emissions to the atmosphere as part of, or as soon as practicable following cessation of building works from the activity to which this approval relates.
A6	**Noxious or offensive odours:** The release of noxious or offensive odours or any other noxious or offensive airborne contaminants resulting from the activity to which this approval relates must not cause, or be likely to cause, a nuisance at or beyond the boundary of the approved place.
A7	**Reasonable adjustment of practices, procedures or infrastructure for resolving nuisance complaints:** The person undertaking the activity to which this approval relates must investigate, or commission the investigation of, any complaints of nuisance caused by noxious or offensive odours and, if those complaints are validated, make reasonable adjustments(9) to processes or equipment to prevent a recurrence of odour nuisance. *9 See section 319 (General Environmental Duty) of the Environmental Protection Act 1994 for things that must be taken into account when determining whether a change is a reasonable adjustment.*
A8	The obligation under condition A7 for the person undertaking the activity to which the approval relates to investigate complaints about noxious or offensive odours is negated if all the following apply - (a) the facts and circumstances forming the basis for the complaint are substantially the same as those alleged in a former complaint by the same complainant; (b) the results of an investigation into the former complaint was that the complaint cannot be substantiated; and (c) the administering authority or an authorised person has not, by written notice, otherwise revived the obligation to investigate the complaint.
A9	**Monitoring obligations in respect to air quality:** The person undertaking the activity to which this approval relates must, if directed in writing by the administering authority or an authorised person, undertake or commission the undertaking of odour monitoring for contaminants released from the approved place at the site and other locations relevant to ascertaining the odour at affected premises.
Agency interest: Land	
Condition number	**Condition**
L1	**General restriction on the release of contaminants:** Unless expressly permitted under conditions of this approval and subject to any exemption, restriction or proviso about the release of the contaminant under those conditions, a person must not cause or permit contaminants to be released to land.
L2	**Places where contaminants may be released:** The person undertaking the activity to which this approval relates may cause or permit the release of final effluent only to the designated effluent irrigation area.

L3	**Restrictions on the release of final effluent to the designated effluent irrigation area:** The person undertaking the activity to which this approval relates may cause or permit the release of final effluent to the designated effluent irrigation area only while all of the following apply- (a) no final effluent is released, or accumulated, within 10m of any property boundary; (b) no final effluent is released within 30m of any watercourse; (c) spray from irrigated final effluent does not leave the boundary of the designated effluent irrigation area; (d) vegetation is not damaged; (e) there is no surface ponding of final effluent; (f) there is no runoff of final effluent past the designated effluent irrigation area or the boundary of the approved place; (g) the capacity of the land onto which the final effluent is irrigated to assimilate nitrogen, phosphorous, salts or other organic matter is not exceeded; and (h) the quality of groundwater is not affected by the irrigation of final effluent.
L4	The person undertaking the activity to which this approval relates must ensure the designated irrigation area is maintained to a suitable state to ensure even distribution of irrigation of effluent occurring, pruning of vegetation and removal of vegetation may be necessary.
L5	All grass and vegetation clippings must be removed from the designated effluent irrigation area upon harvesting.
L6	**Maximum irrigation volume in 24 hour period:** The person undertaking the activity to which this approval relates must ensure the average daily irrigation rate (measured over a calendar month on a daily basis) does not exceed 12,500 litres (equivalent to 2.5 mm over the minimum 0.5 hectare) with a maximum release in anyone day of 20,000 litres (equivalent to 4.0 mm over the 0.5 hectare).
L7	**Minimum size of designated effluent irrigation area:** The person undertaking the activity to which this approval relates must ensure that, excluding any buffers required under condition L3, a minimum of 0.5 hectares is made available for the irrigation of final effluent.

L8

Design and operation standards for removal of contaminants: The person undertaking the activity to which this approval relates must design and operate the sewage treatment plant so that the final effluent released from the sewage treatment plant to land, measured at the sampling point, complies with the final effluent release quality characteristics specified in Table 2 - Final Effluent Release Quality Characteristic Limits.

Table 2 - Final Effluent Release Quality Characteristic Limits

Quality Characteristic	Units	Minimum	Long term 50th percentile	Long Term 80th percentile	Maximum	Monitoring Frequency
5 - day Biological Oxygen Demand (inhibited)	mg/L	-	-	20	30	Monthly
pH	Scale	6	-	-	8.5	Monthly
Total Nitrogen	mg/L	-	15	-	30	Monthly
Total Phosphorous	mg/L	-	10	-	20	Monthly
Free Chlorine Residual	mg/L	-	-	-	2	Continuous
Electrical Conductivity*	µS/cm	-	-	-	-	Monthly
E.Coli**	cfu/100mL	-	100	-	200	Monthly

Note:
* This parameter is required to be monitored only.
** Based on five consecutive samples taken over 24 hours at no less then 30 minute intervals.

L9

Monitoring treatment performance of sewage treatment plant: The person undertaking the activity to which this approval relates must monitor final effluent at the frequency (10), and for the parameters ("Quality Characteristics"), mentioned in condition L8 of this approval.

10 The time at which this sample falls due is referred to as the scheduled sampling time.

L10

The person undertaking the activity to which this approval relates must ensure effluent samples that are taken for the purposes of determining compliance with the final effluent release quality characteristics of this approval are taken from the designated sampling point, outlet of the disinfection zone after disinfection of the effluent has occurred.

L11

The person undertaking the activity to which this approval relates must ensure that the designated sampling point is -

(a) clearly identifiable by reference to signage or other visible markings at the approved place; and

(b) of a type of design that a manual sample can be readily collected .

L12

The person undertaking the activity to which this approval relates must ensure that all valves or release pipes situated in areas intended for use by the public are fitted with lockable valves or removable handles to prevent accidental exposure or release.

L13

Investigation of cause of problems reported by plant alarm system: The person undertaking the activity to which this approval relates must ensure that any alarm event is investigated and resolved as soon as practicable.

L14

Monitoring protocols: The person undertaking the activity to which this approval relates must ensure that all determinations of the concentrations of contaminants in final effluent are-

(a) made in accordance with methods prescribed in the latest edition of the administering authority's water monitoring and sampling manual(11) (however described); and

(b) carried out on samples that are representative of the discharge.

11 At the date of this approval the Monitoring and Sampling Manual 2009 describes the prevailing standard .

L15	**Final Effluent analysis must be by a NATA laboratory:** The person undertaking the activity to which this approval relates must ensure that samples that are taken for the purposes of ensuring compliance with conditions L8 and L9 are given or sent to a laboratory that holds NATA accreditation for the analy1ical methods for each of the quality characteristics that must be performed.
L16	**Monitoring of flows of final effluent through release point:** The person undertaking the activity to which this approval relates must ensure a flow meter is installed at the outlet of the discharge point to determine compliance with condition L6 and keep records the daily volume of final effluent being released to land.
L17	**Effluent Irrigation Management Plan:** Within three (3) months of the date of issue of this development approval , the person undertaking the activity to which this approval relates must give or send an Irrigation Management Plan (IMP) to the administering authority that details how the final effluent irrigation process will be effectively and appropriately managed so as to ensure that the release of final effluent to land at the designated effluent irrigation areas is carried out in an environmentally sustainable manner.

L18 The person undertaking the activity to which this approval relates must monitor the designated effluent irrigation area -

(a) to ensure compliance is achieved with condition L3 (a) to (f) - visually, at least once in each fortnight; and

(b) to ensure compliance is achieved with condition L3 (g) - using relevant soil samples for analysis at the frequency, and for the parameters, specified in Table 3 - Monitoring parameters for designated effluent irrigation area.

Table 3 - Monitoring parameters for designated effluent irrigation area

Quality Characteristics	Units	Monitoring Frequency
pH (1:5)	pH Scale	On commencement and biennially thereafter
Specific conductance or electrical conductivity (1 :5)	µS/cm	On commencement and biennially thereafter
Calcium	mg/kg	On commencement and biennially thereafter
Magnesium	mg/kg	On commencement and biennially thereafter
Potassium	mg/kg	On commencement and biennially thereafter
Cation Exchange Capacity	meq/100g	On commencement and biennially thereafter
Exchangeable calcium	meq/100g	On commencement and biennially thereafter
Exchangeable magnesium	meq/100g	On commencement and biennially thereafter
Exchangeable sodium	meq/100g	On commencement and biennially thereafter
Exchangeable potassium	meq/100g	On commencement and biennially thereafter
Exchangeable aluminium	meq/100g	On commencement and biennially thereafter
Exchangeable sodium percentage	%	On commencement and biennially thereafter
Total Nitrogen as N	mg/kg	On commencement and biennially thereafter
Phospherous (Colwell)	mg/kg	On commencement and biennially thereafter
Boron	mg/kg	On commencement and biennially thereafter
Chloride	mg/kg	On commencement and biennially thereafter

L19 The person undertaking the activity to which this approval relates must submit to the administering authority with the annual monitoring report, as report on the Soil Impact Monitoring Program that includes an assessment of the impact of the release of final effluent to the designated effluent irrigation area, and whether the release is being carried out in an environmentally sustainable manner. This report shall include an interpretation of the results and conclusions by an expert in the field of effluent land disposal, including any recommendations to achieve sustainability should monitoring indicate non-sustainability.

L20 The person undertaking the activity to which this approval relates must ensure notices must be prominently displayed on areas undergoing final effluent irrigation, warning the public that the area is irrigated with recycled water and not to use or drink the effluent.

L21 The person undertaking the activity to which this approval relates must ensure notices as referred to in condition Land 20 are maintained in a visible and legible condition and be in compliance with AS1319 - Safety Signs for the occupational environment.

L22	The person undertaking the activity to which this approval relates must ensure that pipelines and fittings associated with the effluent irrigation system are clearly identifiable by the person undertaking the activity, any member of the public or an authorised person.
L23	**On-site sludge management:** The person undertaking the activity to which this approval relates must not cause or permit sewage sludges to be disposed of at the approved place to which this approval relates.
L24	**Pre-requisite conditions on supply of treated wastewater to third parties:** If the person undertaking the activity to which this approval relates gives or transfers ownership of the treated wastewater to another person(s) ("the third party"), the person undertaking the activity to which this approval relates must do all of the following - (a) prior to giving such effluent or transferring ownership of such effluent to the third party, obtain from the third party details of how they will comply with the general environmental duty (GED) under the *Environmental Protection Act* 1994 in respect of the use and disposal of such effluent, particularly in relation to the environmental sustainability of any final effluent disposal, protection of public health and protection of environmental values of water; (b) only give or transfer ownership of such final effluent on accordance with a written agreement between the person undertaking the activity to which this approval relates and the third party; (c) include, in any third party agreement, the provision that supply of final effluent may be discontinued at any time if the supplier reasonably believes that the third party is utilising final effluent in a way that may cause environmental harm, or is otherwise not complying with the GED; and (d) if the person becomes aware that the person is not or is not likely to comply with the general environmental duty provided by section 319 of the *Environmental Protection Act* 1994, cease the giving and transferring ownership of such final effluent. *Note* 1: *Any recycled water management plan approved under the Water Supply (Safety and Reliability) Act 2008 that fulfils the above requirements is deemed to achieve compliance with this condition.*
L25	**Erosion Control during building works:** The person undertaking the activity to which this approval relates must ensure that erosion protection and sediment control measures are implemented and maintained to prevent and minimise erosion and the release of sediment during all building works at the site.
L26	**Wet weather storage:** The person undertaking the activity to which this approval relates must ensure when conditions prevent the irrigation of final effluent to land (such as during rain events or do not comply with the release effluent quality characteristic limits), the final effluent is directed to a wet weather storage.
L27	The person undertaking the activity to which this approval relates must ensure there is a minimum of four (4) days worth or 80,000 litres of wet weather storage is provided.
L28	The person undertaking the activity to which this approval relates must ensure the excess final effluent beyond the wet weather storage capacity and the daily irrigation allowance specified in condition L6 of this approval is tankered off-site by a regulated waste transporter.

<table>
<tr><th colspan="2">Agency interest: Noise</th></tr>
<tr><th>Condition number</th><th>Condition</th></tr>
<tr><td>N1</td><td>Noise limits and monitoring: Subject to condition N2, the sound pressure level dB(A) from the activity to which this approval relates, but excluding noise from building works (12) associated with the activity, must not exceed the maximum compliance limit specified in the following table when measured using the acoustic descriptor, and at the location, specified in the Table 4(13) - Noise limits.
Table 4 - Noise Limits
<table>
<tr><th>Sound Pressure (dB(A) measured as</th><th>Location of measurement</th><th>Maximum compliance limit (dB(A)</th></tr>
<tr><td>LAeq, 10 min</td><td>At or beyond the boundary if the approved place</td><td>40</td></tr>
<tr><td>LAeq, adj, 10 min</td><td>Measured at a noise sensitive receptor</td><td>35</td></tr>
</table>
12 Note: Section 440R of the Environmental Protection Act 1994 limits the hours at which building work causing an audible noise may be undertaken, and applies to building work undertaken as part of the activity to which this approval relates.
13 Note: If the sound pressure level emitted from the activity to which this approval relates complies with the limits specified in condition N 1, any environmental nuisance caused by that noise is not unlawful environmental harm (see section 493A of the Environmental Protection Act 1994).</td></tr>
<tr><td>N2</td><td>The maximum compliance limits in condition N1 relating to noise measured at a nuisance sensitive place apply only to a nuisance sensitive place that is outside the approved place and is one of the following -
(a) a nuisance sensitive place that is established on the date this approval takes effect; or
(b) to a nuisance sensitive place to which paragraph (a) does not apply - only if the nuisance sensitive place is at least the same distance from the approved place as a nuisance sensitive place to which paragraph (a) applies.</td></tr>
<tr><td>N3</td><td>Administering authority may require noise monitoring to be undertaken: If directed by the administering authority or an authorised person, noise monitoring, which addresses the following issues, must be undertaken to investigate any complaint of noise nuisance, and the results of the monitoring are given or sent to the administering authority within 14 days of the completion of the monitoring-
(a) background noise;
(b) LA10, adj, 10mins;
(c) LA1, adj, 10 mins;
(d) LAeq, adj, 10 mins;
(e) the level and frequency or 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.</td></tr>
<tr><td>N4</td><td>The method of measurement and reporting of noise levels must comply with the latest edition of the administering authority's Noise Measurement Manual.</td></tr>
</table>

N5	**Obligation to investigate complaints noise nuisance:** Subject to condition N6, the person undertaking the activity to which this approval relates must investigate, or commission the investigation of, all complaints alleging noise nuisance (14) from the activity to which this approval relates. *14 The form of any investigations made under condition N5 should be sufficient to enable a conclusion about the validity of the complaint to be made, but do not necessarily require formal noise monitoring in the form required under condition N3.*
N6	The obligation for the person undertaking the activity to which the approval relates to investigate a nuisance complaint is negated if all the following apply- (a) the facts and circumstances forming the basis for the complaint are substantially the same as those alleged in a former complaint by the same complainant; (b) the results of an investigation into the former complaint was that the complaint cannot be substantiated; and (c) the administering authority or an authorised person has not, by written notice, otherwise revived the obligation to investigate the complaint.
N7	**Reasonable adjustment for validated nuisance complaints:** The person undertaking the activity to which this approval relates must make reasonable adjustment (15) of practices, procedures or equipment to resolve any validated complaint investigated under condition N5. Examples of a reasonable adjustment include- (a) changing the times of the day at which particular actions giving rise to the complaint happen; (b) replacing acoustic housing of equipment; or (c) enclosing, covering or closing open or exposed infrastructure if enclosing, covering or closing the infrastructure would not compromise or reduce its effectiveness. *15 See section 319 of the Environmental Protection Act 1994 (General environmental duty) for things that must be considered in determining whether a change is a reasonable adjustment.*
Agency interest: Water	
Condition number	**Condition**
W1	**Contaminants - final effluent and other material:** The person undertaking the activity to which this approval relates must not cause or permit contaminants to be released to any waters or the bed or bank of any waters.
W2	**Stormwater Management:** Suitable banks or diversion drains must be installed and maintained to exclude storm water from entering any structures used for the storage or treatment of contaminants or wastes and to divert storm water away from the designated effluent irrigation area.
W3	The person undertaking the activity to which this approval relates must not cause or permit contaminated storm water to be used for dust suppression and control activities.
W4	The person undertaking the activity to which this approval relates must ensure that- (a) the maintenance and cleaning of vehicles or other equipment associated with the operation or servicing of the sewage treatment plant is carried out in an area designated for the service or cleaning of such vehicles or equipment; and (b) the designated area under paragraph (a) is serviced by infrastructure of a type and design that is suitable to prevent the release of contaminants to any waters, roadside gutter or drain.

W5	**Environmental monitoring and sampling following release event:** If contaminants are released to waters, the person undertaking the activity to which this approval relates must, if directed by the administering authority or an authorised person, do all of the following - (a) take environmental samples to ascertain or confirm the nature and extent of contamination arising from the release; (b) lodge such samples with a laboratory for analysis using a NATA-accredited methodology relevant to the analysis that must be performed; (c) give or send a copy of the results of such analysis the administering authority with the report submitted to the administering authority under condition G17.
Agency interest: Waste	
Condition number	**Condition**
WA1	The person undertaking the activity to which this approval relates must ensure that wastes generated in the carrying out of the activity to which this approval relates are stored, handled and transferred in a proper and efficient manner so as to prevent spillage or contamination of land or waters.
WA2	The person undertaking the activity to which this approval relates must ensure that all regulated wastes consigned for transport off-site are transported only by a person who is lawfully entitled to transport the waste.

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.

"approved place" means the site situated at 356 Thomas Road, MURPHY'S CREEK 4352, Lot 34 on Plan CA31381.

"background noise" means LA90 , T being the A-weighted sound pressure level exceeded for 90 percent of the time period not less than 15 minutes, using Fast response.

"commercial place" means a place, other than a nuisance sensitive place, used as an office or for business or commercial purposes including the place within the curtilage of that place reasonably used by persons at that place.

"designated effluent irrigation area" means the area described as the *Primary and Reserve Land Application Area Surface Spray 10,000m²* depicted in Attachment 2 - Land Application Area Plan, dated 10 June 2011 of this approval.

"final effluent" means volumes of wastewater that has undergone primary, secondary and disinfection treatment though a sewage treatment plant.

"LA10, 10min" means an A-weighted sound pressure level equal to or exceeded for 10% of a 10 minute sample period, measured using fast ("F") response.

"LA10, adj, 10min" means an A-weighted sound pressure level equal to or exceeded for 10% of a 10 minute sample period, measured using fast ("F") response, and adjusted for impulsiveness and tonality.

"LAeq, adj, 1hr" means an A-weighted sound pressure level of a continuous steady sound, adjusted for tonal character, that within a 1 hour period has the same mean square sound pressure of a sound that varies with time.

"long term 50th percentile" means that not more than five (5) of the measured values of the quality characteristic are to exceed the stated release limit for any ten (10) consecutive samples where-

(i) the consecutive samples are taken over a one (1) week period;

(ii) the consecutive samples are taken at approximately equal periods; and

(iii) the time interval between the taking of each consecutive sample is not less than three (3) days or greater than eleven (9) days.

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

"nuisance sensitive place" means a place that is one or more of the following, and includes the curtilage of the place reasonably used by a person at that place -

(i) a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises;

(ii) a motel, hotel or hostel;

(iii) a kindergarten, school, university or other educational institution;

(iv) a medical centre or hospital;

(v) a protected area under the *Nature Conservation Act* 1992, the *Marine Parks Act 2004* or a World Heritage Area; or

(vi) a public thoroughfare, park or gardens.

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

"$PM_{2.5}$" means particulate matter with an aerodynamic diameter of less than or equal to 2.5 µm ($PM_{2.5}$).

"PM_{10}" means particulate matter with an aerodynamic diameter of less than 10µm or equal to (PM_{10}).
ment of Environment
"final effluent release quality characteristic" means the characteristic or property (each being a contaminant under the *Environmental Protection Act* 1994) mentioned in condition Land 8 of this approval.

"waters" includes any 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.

Schedules

Schedule 1—Approved plans

Document No.	Document Name	Date
11/104	On site Facility Plan	10 June 2011
11/104	Land Application Area Plan	10 June 2011

Schedule 2—Monitoring

Table 1 - Dust Deposition Rate and Concentration of Particulate Matter Limits

Contaminant	Measure	Limit	Measurement method
Dust	Deposition rate	120mg/m²/day	Australian Standard AS3580.10.1 of 2003 (or more recent editions)
PM_{10}	Deposition rate	50µg/m³/averaged over 24 hours	Either of the following - (a) AS 3580.9.6 of 2003 (or more recent editions); or (b) AS3580.9.7 of 2009 (or more recent editions).
$PM_{2.5}$	Deposition rate	25µg/m³/averaged over 24 hours	Either of the following - (a) AS 3580.9.10 of 2006 (or more recent editions); or (b) AS3580.9.7 of 2009 (or more recent editions).

Table 3 - Monitoring parameters for designated effluent irrigation area

Quality Characteristics	Units	Monitoring Frequency
pH (1:5)	pH Scale	On commencement and biennially thereafter
Specific conductance or electrical conductivity (1 :5)	µS/cm	On commencement and biennially thereafter
Calcium	mg/kg	On commencement and biennially thereafter
Magnesium	mg/kg	On commencement and biennially thereafter
Potassium	mg/kg	On commencement and biennially thereafter
Cation Exchange Capacity	meq/100g	On commencement and biennially thereafter
Exchangeable calcium	meq/100g	On commencement and biennially thereafter
Exchangeable magnesium	meq/100g	On commencement and biennially thereafter
Exchangeable sodium	meq/100g	On commencement and biennially thereafter
Exchangeable potassium	meq/100g	On commencement and biennially thereafter
Exchangeable aluminium	meq/100g	On commencement and biennially thereafter
Exchangeable sodium percentage	%	On commencement and biennially thereafter
Total Nitrogen as N	mg/kg	On commencement and biennially thereafter

Table 3 - Monitoring parameters for designated effluent irrigation area (Cont)

Phospherous (Colwell)	mg/kg	On commencement and biennially thereafter
Boron	mg/kg	On commencement and biennially thereafter
Chloride	mg/kg	On commencement and biennially thereafter

Table 4 - Noise Limits

Sound Pressure (dB(A) measured as	**Location of measurement**	**Maximum compliance limit (dB(A)**
LAeq, 10 min	**At or beyond the boundary if the approved place**	**40**
LAeq, adj, 10 min	**Measured at a noise sensitive receptor**	**35**

Schedule 3—Release limits

Table 2 - Final Effluent Release Quality Characteristic Limits

Quality Characteristic	**Units**	**Minimum**	**Long Term 50th percentile**	**Long Term 80th percentile**	**Maximum**	**Monitoring Frequency**
5 - day Biological Oxygen Demand (inhibited)	mg/L	-	-	20	30	Monthly
pH	Scale	6	-	-	8.5	Monthly
Total Nitrogen	mg/L	-	15	-	30	Monthly
Total Phosphorous	mg/L	-	10	-	20	Monthly
Free Chlorine Residual	mg/L	-	-	-	2	Continuous
Electrical Conductivity*	µS/cm	-	-	-	-	Monthly
E.Coli**	cfu/100mL	-	100	-	200	Monthly

END OF PERMIT