

Permit

Environmental Protection Act 1994

Environmental authority EPPR00511713

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

Environmental authority number: EPPR00511713

Environmental authority takes effect on 22 March 2018

Environmental authority holder(s)

Name(s)	Registered address
Queensland Bulk Water Supply authority	Level 8 117 Brisbane Street IPSWICH QLD 4305

Environmentally relevant activity and location details

Environmentally relevant activity/activities	Location(s)
Prescribed ERA, ERA 60 - Waste disposal, 2: Operating a facility for disposing of, in a year, the following quantity of waste mentioned in subsection (1) (b), (e) more than 20,000t but not more than 50,000t	Lot 11/SP158745
Prescribed ERA, ERA 60 - Waste disposal, 2: Operating a facility for disposing of, in a year, the following quantity of waste mentioned in subsection (1) (b), (e) more than 20,000t but not more than 50,000t	Lot 10/SP158745
Prescribed ERA, ERA 60 - Waste disposal, 2: Operating a facility for disposing of, in a year, the following quantity of waste mentioned in subsection (1) (b), (e) more than 20,000t but not more than 50,000t	Lot 2/RP93602
Prescribed ERA, ERA 60 - Waste disposal, 2: Operating a facility for disposing of, in a year, the following quantity of waste mentioned in subsection (1) (b), (e) more than 20,000t but not more than 50,000t	Lot 1/RP214896
Prescribed ERA, ERA 08 - Chemical Storage, 5: storing 200 cubic metres or more of chemicals that are liquids, other than chemicals mentioned in items 1 to 3, under subsection (1)(d)	Lot 11/SP158745
Prescribed ERA, ERA 08 - Chemical Storage, 5: storing 200 cubic metres or more of chemicals that are liquids, other than chemicals mentioned in items 1 to 3, under subsection (1)(d)	Lot 10/SP158745
Prescribed ERA, ERA 08 - Chemical Storage, 5: storing 200 cubic metres or more of chemicals that are liquids, other than chemicals mentioned in items 1 to 3, under subsection (1)(d)	Lot 2/RP93602

Environmental authority

Environmentally relevant activity/activities	Location(s)
Prescribed ERA, ERA 08 - Chemical Storage, 5: storing 200 cubic metres or more of chemicals that are liquids, other than chemicals mentioned in items 1 to 3, under subsection (1)(d)	Lot 1/RP214896
Prescribed ERA, ERA 64 - Water treatment, 3: Treating 10ML or more raw water in a day	Lot 155/SP177699
Prescribed ERA, ERA 64 - Water treatment, 3: Treating 10ML or more raw water in a day	Lot 153/S317
Prescribed ERA, ERA 64 - Water treatment, 3: Treating 10ML or more raw water in a day	Lot 152/S317
Prescribed ERA, ERA 64 - Water treatment, 3: Treating 10ML or more raw water in a day	Lot 11/SP158745
Prescribed ERA, ERA 64 - Water treatment, 3: Treating 10ML or more raw water in a day	Lot 154/S317
Prescribed ERA, ERA 64 - Water treatment, 3: Treating 10ML or more raw water in a day	Lot 1/RP214896
Prescribed ERA, ERA 64 - Water treatment, 3: Treating 10ML or more raw water in a day	Lot 10/SP158745
Prescribed ERA, ERA 64 - Water treatment, 3: Treating 10ML or more raw water in a day	Lot 2/RP93602
Prescribed ERA, ERA 64 - Water treatment, 3: Treating 10ML or more raw water in a day	Lot 167/S317
Prescribed ERA, ERA 64 - Water treatment, 3: Treating 10ML or more raw water in a day	Lot 2/RP136812
Prescribed ERA, ERA 64 - Water treatment, 3: Treating 10ML or more raw water in a day	Lot 11/RP227609
Prescribed ERA, ERA 64 - Water treatment, 3: Treating 10ML or more raw water in a day	Lot 106/C311616
Prescribed ERA, ERA 64 - Water treatment, 3: Treating 10ML or more raw water in a day	Lot 2/RP133489
Prescribed ERA, ERA 64 - Water treatment, 3: Treating 10ML or more raw water in a day	Lot 1/RP159007
Prescribed ERA, ERA 64 - Water treatment, 3: Treating 10ML or more raw water in a day	Lot 1/RP96534
Prescribed ERA, ERA 64 - Water treatment, 3: Treating 10ML or more raw water in a day	Lot 1/RP96403
Prescribed ERA, ERA 08 - Chemical Storage, 4: storing 200t or more of chemicals that are solids or gases, other than chemicals mentioned in items 1 to 3, under subsection (1)(d)	Lot 11/SP158745
Prescribed ERA, ERA 08 - Chemical Storage, 4: storing 200t or more of chemicals that are solids or	Lot 10/SP158745



Environmental authority

Environmentally relevant activity/activities	Location(s)
gases, other than chemicals mentioned in items 1 to 3, under subsection (1)(d)	
Prescribed ERA, ERA 08 - Chemical Storage, 4: storing 200t or more of chemicals that are solids or gases, other than chemicals mentioned in items 1 to 3, under subsection (1)(d)	Lot 2/RP93602
Prescribed ERA, ERA 08 - Chemical Storage, 4: storing 200t or more of chemicals that are solids or gases, other than chemicals mentioned in items 1 to 3, under subsection (1)(d)	Lot 1/RP214896
Prescribed ERA, ERA 63 - Sewage Treatment, 1: Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of, (a-ii) 21 to 100EP otherwise	Lot 11/SP158745
Prescribed ERA, ERA 63 - Sewage Treatment, 1: Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of, (a-ii) 21 to 100EP otherwise	Lot 10/SP158745
Prescribed ERA, ERA 63 - Sewage Treatment, 1: Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of, (a-ii) 21 to 100EP otherwise	Lot 2/RP93602
Prescribed ERA, ERA 63 - Sewage Treatment, 1: Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of, (a-ii) 21 to 100EP otherwise	Lot 1/RP214896
Prescribed ERA, ERA 63 - Sewage Treatment, 1: Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of, (a-i) 21 to 100EP if treated effluent is discharged from the works to an infiltration trench or through an irrigation scheme	Lot 888/SP104212
Prescribed ERA, ERA 64 - Water treatment, 3: Treating 10ML or more raw water in a day	Lot 118/MCH814
Prescribed ERA, ERA 64 - Water treatment, 3: Treating 10ML or more raw water in a day	Lot 1/RP800331
Prescribed ERA, ERA 64 - Water treatment, 3: Treating 10ML or more raw water in a day	LOT 103/SP236331

Additional information for applicantsEnvironmentally 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.

Environmental authority

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
- 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 Heritage Protection
Delegate of the administering authority
Environmental Protection Act 1994

Enquiries:
Heritage, Utilities and Government Assessment
Department of Environment and Heritage Protection
Phone: 1300 130 372
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Date issued: 22 March 2018

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)

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.

Obligations under the *Environmental Protection Act 1994*

In addition to the requirements found in the conditions of this environmental authority, the holder must also meet their obligations under the EP Act, and the regulations made under the EP Act. For example, the holder must comply with the following provisions of the Act:

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

Conditions of environmental authority

Part 1 – General conditions

Environmentally relevant activities	Locations
ERA 64-(3) Water treatment – treating 10ML or more of raw water in a day.	Lake MacDonald Road COOROY - Lot 1 Plan RP800331 and Lot 118 Plan MCH814
ERA 64-(3) Water treatment – treating 10ML or more of raw water in a day.	Image Flat Road NAMBOUR - Lot 1 Plan RP96534, Lot 1 Plan RP96403, Lot 1 Plan RP159007 and Lot 2 Plan RP133489
ERA 64-(3) Water treatment – treating 10ML or more of raw water in a day.	Mooloolah Connection Road GLENVIEW – Lot 106 on C311616, Lot 103 on SP236331, Lot 2 on RP136812 and Lot 11 on RP227609
ERA 64-(3) Water treatment – treating 10ML or more of raw water in a day. ERA 60-(2)(e) Waste disposal – operating a facility for disposing of, in a year, the following quantity of waste	Byrnes Road, Joyner - Lot 152 Plan S317, Lot 153 Plan S317, Lot 167 Plan S317, Lot 155 Plan SP177699, Lot 1 Plan RP214896, Lot 154 Plan

Environmentally relevant activities	Locations
mentioned in subsectino (1)(b) – more than 20,000t but not more than 50,000t. ERA 8-(4) Chemical storage – storing 200t or more of chemicals that are solids or gases, other than chemicals mentioned in items 1 to 3, under subsection (1)(d). ERA 8-(5) Chemical storage – storing 200m³ or more of chemicals that are liquids, other than chemicals mentioned in items 1 to 3, under subsection (1)(d).	S317, Lot 10 Plan SP158745, Lot 11 Plan SP158745 and Lot 2 Plan RP93602
ERA 63-(1)(a)(ii) Sewage treatment – operating sewage treatment works, other than no release works, with a total daily peak design capacity of 21 to 100EP – otherwise (no infiltration trench or irrigation scheme).	Byrnes Road JOYNER - Lot 1 Plan RP214896, Lot 11 Plan SP158745, Lot 10 Plan SP158745 and Lot 2 Plan RP93602
ERA 63-(1)(a)(i) Sewage treatment – operating sewage treatment works, other than no release works, with a total daily peak design capacity of 21 to 100EP if treated effluent is discharged from the works to an infiltration trench or through an irrigation scheme.	Macgavin View Recreation Area - Lot 888 Plan SP104212

Agency interest: General	
Condition number	Condition
G1-1	All reasonable and practicable measures must be taken to prevent the likelihood of environmental harm being caused.
G1-2	Any breach of a condition of this environmental authority must be reported to the administering authority as soon as practicable, or at most, within twenty-four (24) hours of becoming aware of the breach. Records must be kept including full details of the breach and any subsequent actions undertaken.
G1-3	Other than as permitted by this environmental authority, the release of a contaminant into the environment must not occur.
G1-4	All records must be kept for a period of at least five (5) years and provided to the administering authority upon request.
G1-5	An appropriately qualified person(s) must monitor, record and interpret all parameters that are required to be monitored by this environmental authority in the manner specified by this environmental authority.
G1-6	You must record the following details for all environmental complaints received: a) date and time complaint was received; b) name and contact details of the complainant; c) nature of the complaint; d) investigations undertaken; e) conclusions formed; and f) actions taken.
G1-7	When required by the administering authority , monitoring must be undertaken in the manner prescribed by the administering authority to investigate a complaint not consisted by the administering authority to be frivolous or vexatious, of environmental nuisance arising from the activity . The monitoring results must be provided to the administering authority upon request.
G1-8	The activity must be undertaken in accordance with written procedures that: a) identify potential risks to the environment from the activity during routine operations, closure and an emergency; b) establish and maintain control measures that minimise the potential for environmental harm; c) ensure plant, equipment and measures are maintained in a proper and effective condition; d) ensure plant, equipment and measures are operated in a proper and effective manner; e) ensure that staff are trained in, and aware of, their obligations under the <i>Environmental Protection Act 1994</i>; and f) ensure that reviews of environmental performance are undertaken at least annually.

G1-9	Chemicals and fuels in containers greater than fifteen (15) litres must be stored within a secondary containment system .
Agency interest: Air	
Condition number	Condition
A1-1	Other than as permitted within this environmental authority, odours or airborne contaminants must not cause environmental nuisance to any sensitive place or commercial place .
Agency interest: Noise	
Condition number	Condition
N1-1	Other than as permitted within this environmental authority, noise generated by the activity must not cause environmental nuisance to any sensitive place or commercial place .
Agency interest: Noise	
Condition number	Condition
W1-1	All waste generated in carrying out the activity must be lawfully reused, recycled or removed to a facility that can lawfully accept the waste.

Part 2 – Site specific conditions

Location: Image Flat Road, NAMBOUR

Lot 1 Plan RP96534, Lot 1 Plan RP96403, Lot 1 Plan RP159007 and Lot 2 Plan RP133489

Relevant activity/ies:

ERA 64-(3) Water treatment – treating 10ML or more of raw water in a day.

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

Agency interest: Water	
Condition number	Condition
WT2-1	The only contaminants to be released to surface waters are supernatant from the water treatment plant sludge lagoons to waters at release point W1 in accordance with <i>Table 2-1 – Surface water release limits</i> and the associated requirements. Release point W1 – return supernatant pump station overflow, to waters described as unnamed tributary of the South Maroochy River

Table 2-1 – Surface water release limits

Quality Characteristics	Release Limits	Limit Type	Frequency
pH	6.5 – 8.5	Range	Daily during the occurrence of a release
Suspended solids (mg/L)	30	Maximum	
Total Aluminium (mg/L)	1.0	Maximum	
Dissolved Oxygen (mg/L)	2.0	Minimum	

WT2-2	The only contaminants to be released to surface waters are supernatant from the water treatment plant sludge lagoons to waters at release point W2 in accordance with <i>Table 2-2 – Surface water release limits</i> and the associated requirements. Release point W2 – pumped supernatant from treatment plant sludge lagoons discharging to Poona Dam at the Poona Dam bellmouth inlet pump station overflow.
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Table 2-2 – Surface water release limits

Quality Characteristics	Release Limits	Limit Type	Frequency
pH	6.5 – 8.5	Range	Quarterly for routine discharge to Poona Dam
Suspended solids (mg/L)	30	Maximum	
Total Aluminium (mg/L)	1.0	Maximum	
Dissolved Oxygen (mg/L)	2.0	Minimum	

WT2-3	The release of contaminants to waters at release point W1 must only occur as a result of an emergency or other events including equipment failure, power outage, storm conditions or natural variation to source water quality, which prevents the volumes of water from being recirculated to the plant or released at release point W2.
WT2-4	During any emergency offsite release of supernatant via release point W1, samples must be taken from the following sampling point: S1 – Interconnection well located 25 metres east of the supernatant pump station: Lot 1 on Plan SP236332
WT2-5	During routine release of supernatant via release point W2, samples must be taken from the following sampling point: S1 – Interconnection well located 25 metres east of the supernatant pump station: Lot 1 on Plan SP236332
WT2-6	The release of waters must not produce any slick or other visible evidence of oil or grease, nor contain visible floating oil, grease, scum, litter or other visually objectionable matter.
Agency interest: Noise	
Condition number	Condition
N2-1	Noise from the activity must not exceed the levels identified in <i>Table 2-1 – Noise limits</i> and the associated requirements at any nuisance sensitive place or commercial place .

Table 2-1 – Noise limits

Noise level measured in dB(A)	Monday to Saturday			Sunday and Public Holidays		
	7am-6pm	6pm-10pm	10pm-7am	9am-6pm	6pm-10pm	10pm-9am
	Noise measured at a nuisance sensitive place					
$L_{Aeq, adj, T}$	Background +5	Background +3	Background+0	Background +5	Background +3	Background + 0
$MaxL_{pA, T}$	Background +10	Background +8	Background+5	Background +10	Background +8	Background +5
	Noise measured at a commercial place					
	7am-6pm	6pm-10pm	10pm-7am	9am-6pm	6pm-10pm	10pm-9am
	Noise measured at a commercial place					
$L_{Aeq, adj, T}$	Background +10	Background +8	Background+5	Background +10	Background +8	Background +5
$MaxL_{pA, T}$	Background +15	Background +13	Background +10	Background +15	Background +13	Background +10

Associated monitoring requirements:

1. All monitoring devices must be correctly calibrated and maintained.
2. Any monitoring must be in accordance with the most recent version of the **administering authority's** Noise Measurement Manual.
3. Any monitoring of noise emissions from the **activity** must be undertaken when the **activity** is in operation.

N2-2	When required by the administering authority, noise monitoring must be undertaken in accordance with the associated monitoring requirements of <i>Table 2-1—Noise limits</i> and the results notified within fourteen (14) days to the administering authority. Monitoring must include: a) $L_{Aeq, adj, T}$; b) Background noise (background) as $LA_{90, adj, T}$ c) $MaxL_{pA, T}$; d) the level and frequency of occurrence of any impulsive or tonal noise; e) atmospheric conditions including wind speed and direction; f) effects due to extraneous factors such as traffic noise; and g) location, date and time of recording.
Agency interest: Waste	
Condition number	Condition
W2-1	Waste sludge from the drying lagoons, which is stored onsite must be contained in designated areas so that it does not discharge contaminants to the environment.

Part 3 – Site specific conditions

Location: Lake MacDonald Road, COOROY

Lot 1 Plan RP800331 and Lot 118 Plan MCH814

Relevant activity/ies:

ERA 64-(3) Water treatment – treating 10ML or more of raw water in a day.

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

Agency interest: Water	
Condition number	Condition
WT3-1	The only contaminants to be released to surface waters are treated water and supernatant, generated from the treatment of raw water for the supply of drinking water, from the water treatment plant at release point W1 in accordance with <i>Table 3-1 – Surface water release limits</i> and the associated requirements. Release point W1 – treated water and supernatant, generated from the treatment of raw water for the supply of drinking water, from the water treatment plant to waters described as Six Mile Creek, Cooroy at a location described as adjacent to the water treatment plant as shown on <i>Attachment 3-1 – Noosa WTP Site Layout</i>.

Table 3-1 – Surface water release limits

Quality Characteristics	Release Limit	Limit Type	Frequency
Total Chlorine (as Cl)	<0.1mg/L	Maximum	Daily during discharge of treated water
Total Aluminium	1.0mg/L	Maximum	Monthly or in the event of a release, whichever is less frequent
Fluoride	1.0mg/L	Maximum	Daily during discharge of treated water
Suspended Solids	30mg/L	Maximum	Monthly or in the event of a release, whichever is less frequent
pH	6.5 to 8.5	Range	Monthly or in the event of a release, whichever is less frequent
Dissolved Oxygen	4.0mg/L	Minimum	Monthly or in the event of a release, whichever is less frequent

WT3-2	The total quantity of contaminants released from release point W1 during any day must not exceed 4,000 cubic metres (m ³).
WT3-3	Contaminants must be released in a manner so as to release the water continuously over time and not cause an instantaneous release of water.
WT3-4	Determinations of the quality of contaminants released to waters to check conformity with the release characteristics specified in the Water Schedule of Part 3 of this environmental authority must be undertaken at the sampling point described as: Sampling Point S1 – treated water and supernatant generated from the treatment of raw water for the supply of drinking water, at the outfall of the secondary settling lagoon adjacent to Six Mile Creek immediately prior to discharge off the site at the point marked on Figure 1 entitled "Noosa WTP Site Layout" as shown in <i>Attachment 3-1 – Noosa WTP Site Layout</i> of this environmental authority.
Agency interest: Noise	
Condition number	Condition
N3-1	Noise from the activity must not exceed the levels identified in <i>Table 3-1 – Noise limits</i> and the associated requirements at any nuisance sensitive place or commercial place .

Table 3-1 – Noise limits

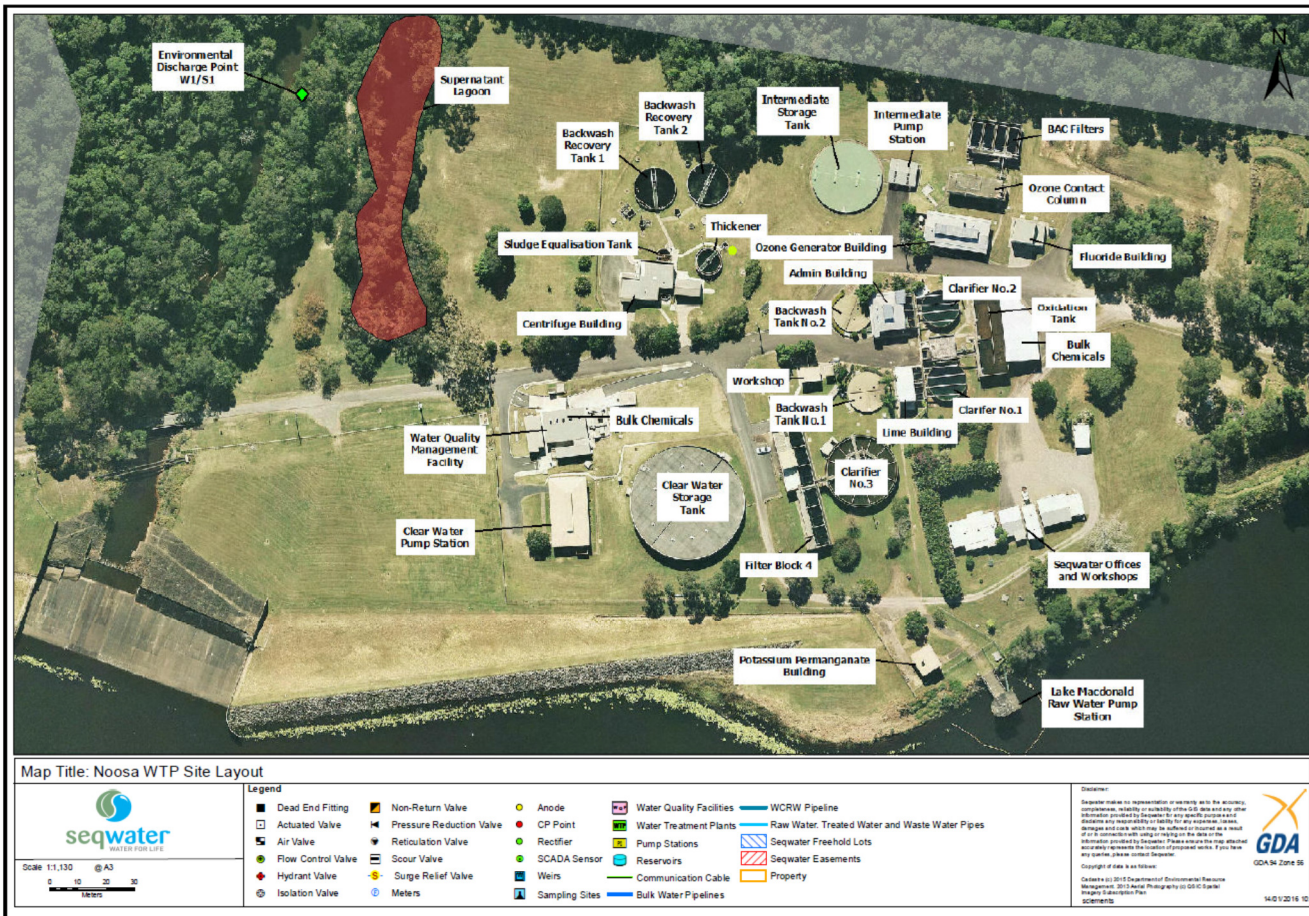
Noise level measured in dB(A)	Monday to Saturday			Sunday and Public Holidays		
	7am-6pm	6pm-10pm	10pm-7am	9am-6pm	6pm-10pm	10pm-9am
Noise measured at a nuisance sensitive place						
L _{Aeq adj,T}	Background +5	Background +3	Background +0	Background +5	Background +3	Background +0
MaxL _{pA,T}	Background +10	Background +8	Background +5	Background +10	Background +8	Background +5
Noise measured at a commercial place						
L _{Aeq adj,T}	Background +10	Background +8	Background +5	Background +10	Background +8	Background +5
MaxL _{pA,T}	Background +15	Background +13	Background +10	Background +15	Background +13	Background +10

Associated monitoring requirements

1. All monitoring devices must be correctly calibrated and maintained.
2. Any monitoring must be in accordance with the most recent version of the **administering authority's** Noise Measurement Manual.
3. Any monitoring of noise emissions from the **activity** must be undertaken when the **activity** is in operation.

N3-2	When required by the administering authority, noise monitoring must be undertaken in accordance with the associated monitoring requirements of <i>Table 3-1 – Noise limits</i> and the results notified within fourteen (14) days to the administering authority. Monitoring must include: a) $LA_{eq, adj, T}$; b) Background noise (background) as $LA_{90, adj, T}$; c) $MaxL_{pA, T}$; d) the level and frequency of occurrence of any impulsive or tonal noise; e) atmospheric conditions including wind speed and direction; f) effects due to extraneous factors such as traffic noise; and g) location, date and time of recording.
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Attachment 3-1 – Noosa WTP Site Layout



Part 4 – Site specific conditions

Location: Mooloolah Connection Road GLENVIEW

Lot 106 on C311616, Lot 103 on SP236331, Lot 2 on RP136812 and Lot 11 on RP227609

Relevant activity/ies:

ERA 64-(3) Water treatment – treating 10ML or more of raw water in a day.

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

Agency interest: Water	
Condition number	Condition
WT4-1	The only contaminants to be released to surface waters are sedimentation / treated water to waters at release point R1 in accordance with <i>Table 4-1 – Surface water release limits</i> and the associated requirements. Discharge Location R1 – sedimentation/treated water release point from lagoon.

Table 4-1 – Surface water release limits

Monitoring Point	Quality Characteristic	Release Limit		Monitoring Frequency
		Minimum	Maximum	
W1	Turbidity (NTU)	-	25	Daily during the occurrence of a release
W1	Suspended solids (mg/L)	-	25	Daily during the occurrence of a release
W1	pH (range)	6.5	8.5	Daily during the occurrence of a release
W1	Dissolved oxygen (4mg/L)	4	-	Daily during the occurrence of a release
W1	Total Chlorine (as Cl) (mg/L)	-	0.7	Daily during the occurrence of a release
W1	Fluoride (mg/L)	-	1	Daily during the occurrence of a release
W1	Total Aluminium (mg/L)	-	1	Daily during the occurrence of a release

WT4-2	The release of waters must not produce any slick or other visible evidence of oil or grease, nor contain visible floating oil, grease, scum, litter or other visually objectionable matter.
Agency interest: Noise	
Condition number	Condition
N4-1	Noise from the activity must not exceed the levels identified in <i>Table 4-1 – Noise limits</i> and the associated requirements at any nuisance sensitive place or commercial place .

Table 4-1 – Noise limits

Noise level measured in dB(A)	Monday to Saturday			Sunday and Public Holidays		
	7am-6pm	6pm-10pm	10pm-7am	9am-6pm	6pm-10pm	10pm-9am
Noise measured at a nuisance sensitive place						
L _{Aeq,adj,T}	Background +5	Background +3	Background +0	Background +5	Background +3	Background +0
MaxL _{pA,T}	Background +10	Background +8	Background +5	Background +10	Background +8	Background +5
Noise measured at a commercial place						
L _{Aeq,adj,T}	Background +10	Background +8	Background +5	Background +10	Background +8	Background +5
MaxL _{pA,T}	Background +15	Background +13	Background +10	Background +15	Background +13	Background +10

Associated monitoring requirements

1. All monitoring devices must be correctly calibrated and maintained.
2. Any monitoring must be in accordance with the most recent version of the **administering authority's** Noise Measurement Manual.
3. Any monitoring of noise emissions from the **activity** must be undertaken when the **activity** is in operation.

N4-2	When required by the administering authority, noise monitoring must be undertaken in accordance with the associated monitoring requirements of <i>Table 4-1—Noise limits</i> and the results notified within fourteen (14) days to the administering authority. Monitoring must include: a) L_{Aeq,adj,T}; b) Background noise (background) as L_{A90,adj,T}; c) MaxL_{pA,T}; d) the level and frequency of occurrence of any impulsive or tonal noise; e) atmospheric conditions including wind speed and direction; f) effects due to extraneous factors such as traffic noise; and g) location, date and time of recording.
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Agency interest: Land	
Condition number	Condition
L4-1	The only contaminants to be released to land are settled/treated stormwater runoff in accordance with <i>Table 4-1 – Contaminant release limits to land</i>. Discharge Location R1 – treated stormwater runoff release point from sedimentation/treatment system to land.

Table 4-1 – Contaminant release limits to land

Monitoring Point	Quality Characteristic	Release Limit		Monitoring Frequency
		Minimum	Maximum	
W1	Turbidity (NTU)	-	25	Daily prior to any release of treated waters to land
W1	Suspended solids (mg/L)	-	25	Daily prior to any release of treated waters to land
W1	pH (range)	6.5	8.5	Daily prior to any release of treated waters to land
W1	Dissolved oxygen (mg/L)	4	-	Daily prior to any release of treated waters to land
W1	Total Chlorine (as Cl) (mg/L)	-	0.7	Daily prior to any release of treated waters to land
W1	Fluoride (mg/L)	-	1	Daily prior to any release of treated waters to land
W1	Total Aluminium (mg/L)	-	1	Daily prior to any release of treated waters to land

Part 5 – Site specific conditions

Location: Byrnes Road, Joyner

Lot 152 Plan S317, Lot 153 Plan S317, Lot 167 Plan S317, Lot 155 Plan SP177699, Lot 1 Plan RP214896, Lot 154 Plan S317, Lot 10 Plan SP158745, Lot 11 Plan SP158745 and Lot 2 Plan RP93602.

Relevant activity/ies:

ERA 64-(3) Water treatment – treating 10ML or more of raw water in a day.

ERA 60-(2)(e) Waste disposal – operating a facility for disposing of, in a year, the following quantity of waste mentioned in subsectino (1)(b) – more than 20,000t but not more than 50,000t.

ERA 8-(4) Chemical storage – storing 200t or more of chemicals that are solids or gases, other than chemicals mentioned in items 1 to 3, under subsection (1)(d).

ERA 8-(5) Chemical storage – storing 200m³ or more of chemicals that are liquids, other than chemicals mentioned in items 1 to 3, under subsection (1)(d).

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

Agency interest: Air	
Condition number	Condition
A5-1	Dust and particulate matter emissions must not exceed the following concentrations at any sensitive place or commercial place: a) dust deposition of 120 milligrams per square metre (m²) per day, when monitored in accordance with <i>Australian Standard AS 3580.10.1</i> (or more recent editions); or b) a concentration of particulate matter with an aerodynamic diameter of less than 10 micrometre (µm) (PM₁₀) suspended in the atmosphere of 50 micrograms per cubic metre (m³) over a 24 hour averaging time, when monitored in accordance with <i>Australian Standard AS 3580.9.6</i> (or more recent editions).
Agency interest: Water	
Condition number	Condition
WT5-1	Contaminants must only be released to surface waters in compliance with the release limits listed in <i>Table 5-1 – Contaminant Release Limits to Water</i> and at the following discharge locations: • Discharge Location NPD1 – namely release of supernatant from Polishing Lagoon to North Pine River at GPS Coordinates: S 27 1541 4 E 152 56 41 8. • Discharge Location NPD2 – namely release of sludge supernatant water and treated water to unnamed watercourse which crosses Byrnes Road, 200m from Protheroe Road Junction at GPS Coordinates: S 27 15 59 9 E 152 56 42 6. • Discharge Location NPD3 – namely release of scour water from final Polishing Lagoon to North Pine River at GPS Coordinates: S 27 15 36 7 E 152 56 41 9.

Table 5-1 – Contaminant Release Limits to Water

Discharge location	Monitoring point	Quality characteristics	Release limit	Limit Type	Monitoring frequency
GPS Co-ordinates: S 27 15 41 4 E 152 56 41 8	NPD1	Total Chlorine (as Cl)	0.03 mg/L	Maximum	Monthly or in the event of a release - whichever is the less frequent.
		Total Aluminium	0.9 mg/L	Maximum	
		Fluoride	1 mg/L	Maximum	
		pH	6.5 – 8.5	Range	
		Dissolved Oxygen	2.0 mg/L	Minimum	
		Turbidity	20 NTU	Maximum	
GPS Co-ordinates: S 27 15 59 9 E 152 56 42 6	NPD2	Total Chlorine (as Cl)	0.7 mg/L	Maximum	Monthly or in the event of a release - whichever is the less frequent.
		Total Aluminium	0.9 mg/L	Maximum	
		Fluoride	1 mg/L	Maximum	
		pH	6.5 – 8.5	Range	
		Dissolved Oxygen	2.0 mg/L	Minimum	
		Turbidity	20 NTU	Maximum	
GPS Co-ordinates: S 27 15 36 7 E 152 56 41 9	NPD3	Total Chlorine (as Cl)	0.03 mg/L	Maximum	Monthly or in the event of a release – whichever is the less frequent.
		Total Aluminium	0.9 mg/L	Maximum	
		Fluoride	1 mg/L	Maximum	
		pH	6.5 – 8.5	Range	
		Dissolved Oxygen	2.0 mg/L	Minimum	
		Turbidity	20 NTU	Maximum	

Note: With respect to monitoring of Total Chlorine (as Cl) Release limit it is permitted to monitor to a limit of reporting of 0.05 mg/L until a suitable laboratory method exists to monitor to a limit of reporting of 0.03 mg/L or lower. The availability of a suitable laboratory method is to be reviewed every two (2) years from commencement of the activity to which this Environmental Authority relates.

WT5-2	Monitoring must be undertaken and records kept of contaminant releases to waters from the discharge locations for the quality characteristics and not less frequently than specified in <i>Table 5-1 – Contaminant Release Limits to Water</i>. All determinations of the quality of contaminants released must be: a) made in accordance with methods prescribed in the latest edition of the administering authority's Water Quality Sampling Manual; and b) carried out on samples that are representative of the discharge.
WT5-3	The release of contaminants to groundwaters must not cause environmental harm. <i>Note: The release of contaminants to groundwaters is not considered to cause environmental harm if groundwater monitoring shows that the release does not result in any statistically significant adverse change of these contaminants, at locations hydraulically down gradient of the sludge disposal area, over background water quality values.</i>
WT5-4	A groundwater monitoring system must: a) be designed and installed by an appropriately qualified person(s) with experience and qualifications in hydrology and groundwater monitoring; and b) include a sufficient number of bores installed at locations and depths which yield representative groundwater samples from at least the uppermost aquifer so as to: i) detect any seepage of contaminants to groundwater from the site; and ii) establish the quality of groundwater affected by any seepage of contaminants; and c) include monitoring of background groundwater quality, with both hydraulically up-gradient bore(s) or background bore(s) that have not been affected by any release of contaminants to groundwater from the activity and hydraulically down gradient bore(s) of the activity.
WT5-5	Upon completion of the installation of the groundwater monitoring network, prescribed in condition WT5-4, the operator is required to supply to the administering authority the monitoring point label and GPS co-ordinates for each 'bore of compliance' for the purpose of updating <i>Table 5-5 – Quality Characteristics of Groundwater Monitoring</i> with the relevant monitoring point information.

Table 5-5 – Quality Characteristics of Groundwater Monitoring

Monitoring point*	Quality characteristics	Units	Frequency
Groundwater Bore NPS-1 GPS coordinates: 27° 16' 17" S 152° 56' 35" E	Total Aluminium	mg/L	Quarterly
	pH		
	Conductivity	µS/cm	
	Total Nitrogen	mg/L	
	Total Phosphorus	mg/L	
Groundwater Bore NPS-2 GPS coordinates: 27° 16' 17" S 152° 56' 41" E	Arsenic (As)	mg/L	
	Iron (Fe)	mg/L	
	Lead (Pb)	mg/L	
	Chromium (Cr)	mg/L	
	Copper (Cu)	mg/L	
Groundwater Bore NPS-3 GPS coordinates: 27° 16' 19" S 152° 56' 37" E	Manganese (Mn)	mg/L	
	Nickel (Ni)	mg/L	
	Zinc (Zn)	mg/L	

*Groundwater monitoring bore numbers and GPS coordinates are taken from the drawing known as "Designated area of the North Pine Water Treatment Plant displaying the alum sludge disposal area and drainage" Map number "Layout_NPD_V7" displayed in Appendix 2.

WT5-6	Within six (6) months of the commencement of the activity to which this environmental authority relates conduct monitoring and keep records of contaminant releases to groundwaters. All determinations of contaminant releases must be: a) made in accordance with methods prescribed in the latest edition of the administering authority's Water Quality Sampling Manual; b) conducted at least at three (3) months frequency, locations determined by the groundwater monitoring network (as prescribed in condition WT5-4 of this environmental authority) and for water quality characteristics in <i>Table 5-5 – Quality Characteristics of Groundwater Monitoring</i>; c) undertake before, during, after deposition of waste in the sludge disposal area; and d) followed by assessment by an appropriately qualified person, indicating whether or not there has been any statistically significant adverse change compared to background values at locations hydraulically down gradient of the sludge disposal area for each quality characteristic in <i>Table 5-5 – Quality Characteristics of Groundwater Monitoring</i>.
WT5-7	Contaminants other than stormwater runoff waters must not be released from the site to surface waters or the bed or banks of surface waters. <i>Note: Settled / treated stormwater is water with a Suspended Solids level of 15 mg/L for combined wet and dry periods; or 90%ile <100 mg/L for wet weather periods.</i> <i>“wet weather period” is defined as “any period where stormwater runoff leaves the site”.</i>
Agency interest: Noise	
Condition number	Condition
N5-1	Noise from the activity must not exceed the levels identified in <i>Table 5-1 – Noise limits</i> and the associated requirements at any nuisance sensitive place or commercial place .

Table 5-1 – Noise Limits

Noise level measured in dB(A)	Monday to Saturday			Sunday and Public Holidays		
	7am-6pm	6pm-10pm	10pm-7am	9am-6pm	6pm-10pm	10pm-9am
	Noise measured at a nuisance sensitive place					
L _{Aeq adj,T}	Background +5	Background +3	Background +0	Background +5	Background +3	Background +0
MaxL _{pA,T}	Background +10	Background +8	Background +5	Background +10	Background +8	Background +5
Noise measured at a commercial place						
L _{Aeq adj,T}	Background +10	Background +8	Background +5	Background +10	Background +8	Background +5
MaxL _{pA,T}	Background +15	Background +13	Background +10	Background +15	Background +13	Background +10

Associated monitoring requirements

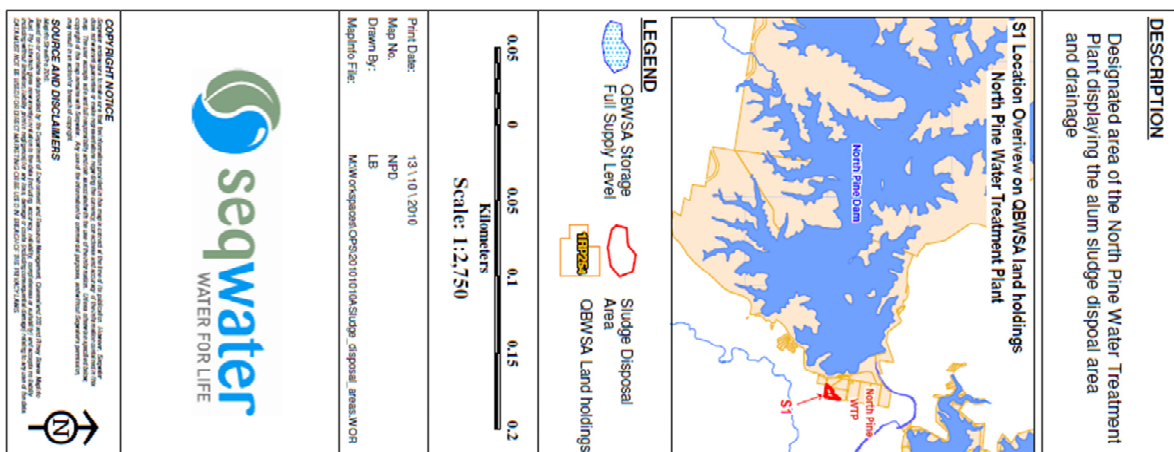
1. All monitoring devices must be correctly calibrated and maintained.
2. Any monitoring must be in accordance with the most recent version of the **administering authority's** Noise Measurement Manual.
3. Any monitoring of noise emissions from the **activity** must be undertaken when the **activity** is in operation.

N5-2	When required by the administering authority, noise monitoring must be undertaken in accordance with the associated monitoring requirements of <i>Table 5-1—Noise limits</i> and the results notified within 14 days to the administering authority. Monitoring must include: a) LA_{eq,adj,T}; b) Background noise (background) as LA_{90,adj,T}; c) MaxL_{pA,T}; d) the level and frequency of occurrence of any impulsive or tonal noise; e) atmospheric conditions including wind speed and direction; f) effects due to extraneous factors such as traffic noise; and g) location, date and time of recording.
Agency interest: Land	
Condition number	Condition
L5-1	Treatment and management of acid sulfate soils must comply with the latest edition of the <i>Queensland Acid Sulfate Soil Technical Manual</i> .
L5-2	Following cessation of deposition of waste in the sludge disposal area, post-closure care of the sludge disposal area must be conducted for a period of thirty (30) years or until the administering authority determines, on the basis of correct information, that the sludge disposal area and surrounding site are stable and that no release of waste materials, leachate, or other contaminants that may cause environmental harm is likely.
L5-3	Land that has been disturbed for activities conducted under this environmental authority must be rehabilitated in a manner such that: a) suitable species of vegetation for the location are established and sustained for earthen surfaces; b) potential for erosion is minimised; c) the quality of water, including seepage, released from the site does not cause environmental harm; d) potential for environmental nuisance caused by dust is minimised; e) the water quality of any residual water body does not have potential to cause environmental harm; f) the final landform is stable and protects public safety; and g) the contaminant concentrations within the final capping layer are appropriate for the final land use and in accordance with the <i>National Environmental Protection (Assessment of Soil Contamination) Measure 1999</i>.
L5-4	Rehabilitation of disturbed areas must take place progressively.

Agency interest: Waste	
Condition number	Condition
W5-1	Only the following waste materials are permitted to be released to land at the location marked in red as "S1 - Sludge Disposal Area" on Map number: Layout_NPD_V7 known as "Designated area of the North Pine Water Treatment Plant displaying the alum sludge disposal area and drainage" dated 13/10/2010 (found in <i>Attachment 5-1</i> of this environmental authority): • Filter cake and sludge waste that is generated from the treatment of raw water for the supply of drinking water.

Attachment 5-1

Location: North Pine Water Treatment Plant - Byrnes Road Joyner.



Part 6 – Site specific conditions

Location: Byrnes Road, Joyner

Lot 1 Plan RP214896, Lot 11 Plan SP158745, Lot 10 Plan SP158745 and Lot 2 Plan RP93602

Relevant activity/ies:

ERA 63-(1)(a)(ii) Sewage treatment – operating sewage treatment works, other than no release works, with a total daily peak design capacity of 21 to 100EP – otherwise (no infiltration trench or irrigation scheme).

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

Agency interest: Water	
Condition number	Condition
WT6-1	The only contaminants to be released to surface waters are from the sewage treatment plant to waters at release point NPD1 in accordance with <i>Table 6-1 – Surface water release limits</i> and the associated requirements. Release Point NPD1 - Sewage effluents from the sewage treatment plant via the water treatment plant polishing lagoons through an outfall pipe to waters described as North Pine River, 400 metres downstream of the Grant Street crossing.

Table 6-1 – Surface water release limits

Quality Characteristics	Release Limit	Limit Type
5-day Biochemical Oxygen Demand (inhibited)	20 mg/L	Long term 80 percentile compliance
5-day Biochemical Oxygen Demand (inhibited)	40 mg/L	Maximum
Suspended Solids	30 mg/L	Long term 80 percentile compliance
Suspended Solids	60 mg/L	Maximum
pH	6.5 to 8.5	Range
Dissolved Oxygen	2.0 mg/L	Minimum
Free Chlorine Residual	0.3 to 0.7 mg/L	Range

WT6-2	Monitoring of contaminant releases to waters must be undertaken in accordance with <i>Table 6-2 – Monitoring frequency</i> and the associated monitoring requirements and records of the results must be kept.
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Table 6-2 – Monitoring frequency

Quality Characteristic	Units	Frequency
5-day Biochemical Oxygen Demand	mg/L	Monthly
Suspended Solids	mg/L	Monthly
pH	pH scale	Monthly
Dissolved Oxygen	mg/L	Monthly
Free Chlorine Residual	mg/L	Monthly
Ammonia (as Nitrogen)	mg/L	Quarterly
Total Nitrogen (as Nitrogen)	mg/L	Quarterly
Total Phosphorus (as Phosphorus)	mg/L	Quarterly

WT6-3	Determinations of the quality of contaminants released to waters to check conformity with the release quality characteristics specified in the Water Schedule of Part 6 of this environmental authority must be undertaken at the sampling and in-situ monitoring point(s) described as the outlet from the chlorine detention tank.
WT6-4	The population served by the sewage treatment plant must not exceed 70 equivalent persons (EP).
WT6-5	The release of waters must not produce any slick or other visible evidence of oil or grease, nor contain visible floating oil, grease, scum, litter or other visually objectionable matter.
Agency interest: Noise	
Condition number	Condition
N6-1	Noise from the activity must not exceed the levels identified in <i>Table 6-1 – Noise limits</i> and the associated requirements at any nuisance sensitive place or commercial place .

Table 6-1 – Noise limits

Noise level measured in dB(A)	Monday to Saturday			Sunday and Public Holidays		
	7am-6pm	6pm-10pm	10pm-7am	9am-6pm	6pm-10pm	10pm-9am
	Noise measured at a nuisance sensitive place					
L_{Aeq adj,T}	Background +5	Background +3	Background +0	Background +5	Background + 3	Background + 0
MaxL_{pA,T}	Background +10	Background +8	Background +5	Background +10	Background +8	Background +5
	Noise measured at a commercial place					
L_{Aeq adj,T}	Background +10	Background +8	Background +5	Background +10	Background +8	Background +5
MaxL_{pA,T}	Background +15	Background +13	Background +10	Background +15	Background +13	Background +10

Associated monitoring requirements

1. All monitoring devices must be correctly calibrated and maintained.
2. Any monitoring must be in accordance with the most recent version of the **administering authority's** Noise Measurement Manual.
3. Any monitoring of noise emissions from the **activity** must be undertaken when the **activity** is in operation.

N6-2	When required by the administering authority, noise monitoring must be undertaken in accordance with the associated monitoring requirements of <i>Table 6-1—Noise limits</i> and the results notified within 14 days to the administering authority. Monitoring must include: a) LA_{eq,adj,T}; b) Background noise (background) as LA_{90,adj,T}; c) MaxL_{pA,T}; d) the level and frequency of occurrence of any impulsive or tonal noise; e) atmospheric conditions including wind speed and direction; f) effects due to extraneous factors such as traffic noise; and g) location, date and time of recording.
Agency interest: Land	
Condition number	Condition
L6-1	The only contaminant allowed to be released to the defined contaminant release areas is treated sewage effluent.
L6-2	The defined contaminated release areas for contaminants stated in condition L6-1 are described as the seven allocated drying areas (“earth beds”) in <i>Attachment 6-1</i> of this environmental authority.
L6-3	Treated sewage effluent may be removed from the site and used for an alternate purpose, with the written consent of any third party involved.
L6-4	When weather conditions or soil conditions preclude the release of treated sewage effluent to land, effluent must not be irrigated to land .
L6-5	Treated effluent released to land must be done in accordance with documentation that ensures: a) drainage to groundwater and subsurface flows of contaminants to surface waters are prevented; b) surface pondage and run-off of effluent is prevented; c) degradation of soil structure is minimised; d) soil sodicity and the build-up of nutrients and heavy metals in the soil and subsoil are minimised; e) spray drift or overspray does not carry beyond effluent disposal areas; f) effluent disposal areas are maintained with an appropriate crop in a viable state for transpiration and nutrient uptake; and g) sufficient buffer zones are maintained between irrigation sites and sensitive environmental receptors.

Attachment 6-1



Part 7 – Site specific conditions

Location: Macgavin View Recreation Area
Lot 888 Plan SP104212

Relevant activity/ies: ERA 63-(1)(a)(i) Sewage treatment – operating sewage treatment works, other than no release works, with a total daily peak design capacity of 21 to 100EP if treated effluent is discharged from the works to an infiltration trench or through an irrigation scheme.

The environmentally relevant activity(ies) 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
G7-1	An annual monitoring report must be provided to the administering authority upon request with the annual return. This report shall include but not be limited to: a) a summary of the previous twelve (12) months' monitoring results obtained under any monitoring programs required under this approval and, in graphical form showing relevant limits, a comparison of the previous twelve (12) month's monitoring results to both this approval limits and to relevant prior results; b) an evaluation/explanation of the data from any monitoring programs; c) a summary of any record of quantities of releases required to be kept under this approval; d) a summary of the record of equipment failures or events recorded for any site under this approval; e) an outline of actions taken or proposed to minimise the environmental risk from any deficiency identified by the monitoring or recording programs; f) the number of domestic tenements newly connected to the sewage treatment works during the previous twelve (12) months; g) the progressive total number of connections; and h) a summary of any trade waste agreements entered into or amended during the year, including the nature of the industry.
Agency interest: Land	
Condition number	Condition
L7-1	The only contaminants to be released to land are septic tank effluents to the areas shown in <i>Table 7-1 – Land Disposal</i> and the conditions of this environmental authority.

Table 7-1 – Land Disposal

Location	Contaminant Release Area
Macgavin View Recreation Area	Septic tanks and evapotranspiration trenches as marked on jpg image "Macgavin View" from SEQ Waters EMS - ISO 14001 Accredited July 2003 Clivus Multrum Composting Toilet.
L7-2	Treated effluent released to land must be done in accordance with documentation that ensures: a) drainage to groundwater and subsurface flows of contaminants to surface waters are prevented; b) surface pondage and run-off of effluent is prevented; c) degradation of soil structure is minimised; d) soil sodicity and the build-up of nutrients and heavy metals in the soil and subsoil are minimised; e) spray drift or overspray does not carry beyond effluent disposal areas; f) effluent disposal areas are maintained with an appropriate crop in a viable state for transpiration and nutrient uptake; and g) sufficient buffer zones are maintained between irrigation sites and sensitive environmental receptors.
L7-3	When weather conditions or soil conditions preclude the release of treated sewage effluent to land, effluent must not be irrigated to land.

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.

Activity means the environmentally relevant activities, whether resource activities or prescribed activities, to which the environmental authority relates.

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

Appropriately qualified person(s) means a person or persons who has professional qualifications, training, skills or experience relevant to the nominated subject matter and can give authoritative assessment, advice and analysis to performance relative to the subject matter using the relevant protocols, standards, methods or literature.

Background means noise, measured in the absence of the noise under investigation, as $LA_{90,T}$ being the A-weighted sound pressure level exceeded for 90 per cent of the time period of not less than 15 minutes, using Fast response.

Commercial place means a place used as a workplace, an office or for business or commercial purposes and includes a place within the curtilage of such a place reasonably used by persons at that place.

Disturbed areas includes areas:

- a) that are susceptible to erosion;
- b) that are contaminated by the **activity**; and/or
- c) upon which stockpiles of soil or other materials are located.

Environmental nuisance as defined in Chapter 1 of the *Environmental Protection Act 1994*.

Groundwater monitoring system means a system of groundwater monitoring devices, such as monitoring bores, used to provide data in respect to the level and quality of groundwater in the uppermost aquifer where the location of the groundwater monitoring devices is such that comparisons of groundwater quality and groundwater level can be made between groundwater flowing from beneath the site (down-gradient flow) of the **activity** and groundwater flowing towards the site of the **activity** (up-gradient flow).

$LA_{eq\ adj,T}$ means the adjusted A weighted equivalent continuous sound pressure level measures on fast response, adjusted for tonality and impulsiveness, during the time period T, where T is measured for a period no less than 15 minutes when the **activity** is causing a steady state noise, and no shorter than one hour when the approved **activity** is causing an intermittent noise.

Land does not include **waters**.

$Max_{LpA,T}$ means the maximum A-weighted sound pressure level measured over a time period T of not less than 15 minutes, using Fast response.

Measures have the broadest interpretation and includes plant, equipment, physical objects, bunding, containment systems, monitoring, procedures, actions, directions and competency.

Mg/L means milligrams per litre.

NATA means National Association of Testing Authorities.

NTU means nephelometric turbidity units.

Records include breach notifications, written procedures, analysis results, monitoring reports and monitoring programs required under a condition of this authority.

Release of a contaminant into the environment means to:

- a) deposit, discharge, emit or disturb the contaminant
- b) cause or allow the contaminant to be deposited, discharged, emitted or disturbed
- c) fail to prevent the contaminant from being deposited, discharged emitted or disturbed
- d) allow the contaminant to escape
- e) fail to prevent the contaminant from escaping.

Secondary containment system means a system designed, installed and operated to prevent any release of contaminants from the system, or containers within the system, to land, groundwater, or surface **waters**.

Sensitive place includes the following and includes a place within the curtilage of such a place reasonably used by persons at that place:

- a) a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or
- b) a motel, hotel or hostel; or
- c) a kindergarten, school, university or other educational institution; or
- d) a medical centre or hospital; or
- e) a protected area under the *Nature Conservation Act 1992*, the *Marine Parks Act 2004* or a World Heritage Area; or
- f) a public thoroughfare, park or gardens; or
- g) for noise, a place defined as a sensitive receptor for the purposes of the *Environmental Protection (Noise) Policy 2008*.

Site means land or tidal **waters** on or in which it is proposed to carry out the development approved under this environmental authority.

Tank means any individual container for holding a chemical and having a capacity of more than 250 litres.

Waters includes river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, unconfined water, natural or artificial watercourse, bed and bank of any **waters**, dams, non-tidal or tidal **waters** (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off, and groundwater and any part thereof.

You means the holder of the environmental authority.

24 hour storm event with an average recurrence interval of 1 in 10 years means the maximum rainfall depth from a 24-hour duration precipitation event with an average recurrence interval of once in 10 years. For example, an Intensity–Frequency–Duration table for a 24-hour duration event with an average recurrence interval of 1 in 10 years, identifies a rainfall intensity of 8.2mm/hour. The rainfall depth for this event is therefore 24 hour x 8.2mm/hour = 196.8mm.

END OF PERMIT