Permit

Environmental Protection Act 1994

Environmental authority EPPR00751213

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

Environmental authority number: EPPR00751213

Environmental authority takes effect on 25 May 2020

Environmental authority holder(s)

Name(s)	Registered address
CLEANCO QUEENSLAND LIMITED	Comalco Place Level 32 12 Creek St BRISBANE CITY QLD 4000 Australia

Environmentally relevant activity and location details

Environmentally relevant activity/activities	Location(s)
Prescribed ERA, ERA 14 - Electricity Generation, 1: Generating electricity by using gas at a rated capacity of 10MW electrical or more	Lot 244/SL5579
Prescribed ERA, ERA 14 - Electricity Generation, 1: Generating electricity by using gas at a rated capacity of 10MW electrical or more	Lot 233/SL5577
Prescribed ERA, ERA 14 - Electricity Generation, 1: Generating electricity by using gas at a rated capacity of 10MW electrical or more	Lot 2/RP101603
Prescribed ERA, ERA 14 - Electricity Generation, 1: Generating electricity by using gas at a rated capacity of 10MW electrical or more	Lot 1/RP112211
Prescribed ERA, ERA 14 - Electricity Generation, 1: Generating electricity by using gas at a rated capacity of 10MW electrical or more	Lot 111/SP138157
Prescribed ERA, ERA 14 - Electricity Generation, 1: Generating electricity by using gas at a rated capacity of 10MW electrical or more	Lot 12/SP142300

Prescribed ERA, ERA 14 - Electricity Generation, 1: Generating electricity by using gas at a rated capacity of 10MW electrical or more	Lot 182/SP271921
Prescribed ERA, ERA 14 - Electricity Generation, 1: Generating electricity by using gas at a rated capacity of 10MW electrical or more	Lot 9/SP292788
Prescribed ERA, ERA 56 - Regulated Waste Storage, Receiving and storing regulated waste	Lot 244/SL5579
Prescribed ERA, ERA 56 - Regulated Waste Storage, Receiving and storing regulated waste	Lot 233/SL5577
Prescribed ERA, ERA 56 - Regulated Waste Storage, Receiving and storing regulated waste	Lot 2/RP101603
Prescribed ERA, ERA 56 - Regulated Waste Storage, Receiving and storing regulated waste	Lot 1/RP112211
Prescribed ERA, ERA 56 - Regulated Waste Storage, Receiving and storing regulated waste	Lot 111/SP138157
Prescribed ERA, ERA 56 - Regulated Waste Storage, Receiving and storing regulated waste	Lot 12/SP142300
Prescribed ERA, ERA 56 - Regulated Waste Storage, Receiving and storing regulated waste	Lot 182/SP271921
Prescribed ERA, ERA 56 - Regulated Waste Storage, Receiving and storing regulated waste	Lot 9/SP292788
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 244/SL5579
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 233/SL5577
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/RP101603
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/RP112211
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 111/SP138157

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 12/SP142300
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 182/SP271921
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 9/SP292788

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
- 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 *Sustainable Planning Act 2009* 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.

Clancy Mackaway
Department of Environment and Science
Delegate of the administering authority
Environmental Protection Act 1994

Date Issued: 25 May 2020

Enquiries:
Energy and Extractive Resources Assessment
Department of Environment and Science

Phone: 1300 130 372
Email: palm@des.qld.gov.au

Obligations under the *Environmental Protection Act 1994*

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

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

Legislative requirements and conditions of environmental authority

Conditions of environmental authority

PART 1: COMMON CONDITIONS

Agency interest: General	
Condition number	**Condition**
G1.1	Any breach of a condition of this environmental authority must be reported to the **administering authority** as soon as practicable within 24 hours of becoming aware of the breach. **Records** must be kept including full details of the breach and any subsequent actions undertaken.
G1.2	All reasonable and practicable **measures** must be taken to prevent or minimise environmental harm caused by the **activities**.
G1.3	The **activity** must be undertaken in accordance with written procedures that: a) identify potential risks to the environment from the **activity** during routine operations and emergencies; b) establish and maintain control **measures** that minimise the potential for environmental harm; and c) ensure plant, equipment and **measures** are maintained in a proper and effective condition; and d) ensure plant, equipment and **measures** are operated in a proper and effective manner; and e) ensure that staff are trained in and aware of their obligations under the *Environmental Protection Act 1994; and* f) ensure that reviews of environmental performance are undertaken at least annually.
G1.4	An **appropriately qualified person(s)** must monitor, record and interpret all parameters that are required to be monitored by this environmental authority and in the manner specified by this environmental authority.
G1.5	Chemicals and fuels in containers of greater than 15 litres must be stored within a **secondary containment system.**
Agency interest: Waste	
Condition number	**Condition**
W1.1	All waste generated in carrying out the **activity** must be reused, recycled or removed to a facility that can lawfully accept the waste.
Agency interest: Noise	
Condition number	**Condition**

N1.1	Noise generated by the **activity** must not cause **environmental nuisance** to any **sensitive place** or **commercial place.**
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: Water	
Condition number	**Condition**
WT1.1	Stormwater contaminated by the **activity** must be managed to minimise or prevent any adverse impacts on the values of the receiving environment.
WT1.2	A receiving environment monitoring program (REMP) must be designed and implemented by an **appropriately qualified person(s)** to monitor the effects of the **activity** on the environmental values of Oaky Creek.
WT1.3	The REMP must include at least the following: 1. assess the condition or state of receiving waters within the REMP area, considering background water quality characteristics based on accurate and reliable monitoring data that takes into consideration temporal variation (e.g. seasonality); 2. be designed to facilitate assessment against water quality objectives for the relevant environmental values that need to be protected; 3. include monitoring from background reference sites (e.g. upstream or background) and downstream sites from the release; 4. specify the frequency and timing of sampling required. This should include monitoring during periods of natural flow; 5. include monitoring and assessment of all water quality indicators listed in Table 2 – Water monitoring and release limits; 6. describe the sampling and analysis methods, quality assurance and control; 7. incorporate stream flow information in the interpretations of water quality.
WT1.4	A REMP Design Document must be prepared and submitted to the administering authority no later than 1 August 2018. Due consideration must be given to any comments made by the administering authority on the REMP Design Document and subsequent implementation of the program.
WT1.5	A final report developed by a suitably qualified person(s) outlining the impact of power station discharges on the receiving environment and a review of the ongoing adequacy of the REMP must be submitted to the administering authority no later than 1 May 2021.

PART 2: CONDITIONS FOR PRESCRIBED ERA 14

The environmentally relevant activity(ies) described above must be conducted in accordance with the following conditions.

Agency interest: General	
Condition number	**Condition**
G2.1	All **records** must be kept for a period of at least five years and provided to the **administering authority** upon request. The **record** retention requirements of this condition will be satisfied if any daily and weekly **records** are kept for a period of at least three (3) years and these **records** are kept in the form of annual summaries after that period.
G2.2	All analyses required under this environmental authority must be carried out by a laboratory that has National Association of Testing Authorities (NATA) certification, or an equivalent certification, for such analyses. The only exception to this condition is for in situ monitoring and field monitoring for air emissions and release quality characteristic limits associated with the release of contaminants to waters.
G2.3	When required by the administering authority, monitoring must be undertaken in the manner prescribed by the administering authority to investigate a complaint of environmental nuisance arising from the activity. The monitoring results must be provided within 10 business days to the administering authority upon its request.
G2.4	All bunding must be constructed and maintained so as to be sufficiently impervious to allow retention and recovery of any materials being stored within the bund.
Agency interest: Waste	
Condition number	**Condition**
W2.1	**Incompatible wastes** must not be mixed in the same container or waste storage area.
Agency interest: Air	
Condition number	**Condition**
A2.1	Contaminants must only be released to air from the point source in accordance with Table 1 – Point source air monitoring and release limits and the associated requirements.

Table 1 – Point source air monitoring and release limits

Authorised release point GDA94, Zone 56 Decimal degrees Source: Combined cycle gas turbine				Minimum Efflux velocity (m/sec) at maximum continuous rating	Indicator	Maximum release limits	Minimum monitoring frequency
Ref	Latitude	Longitude	Height* (m)				
ADPE	-27.6556	152.8181	40	12.0		Concentration 52mg/Nm3	Continuous instrument analysis
					Oxides of Nitrogen (NOx)	(25ppm) 1hr rolling average	Annually
						Mass rate @ MCR 35g/sec	Annually
					Oxygen	N/A	Continuous instrument analysis
							Annually

* Minimum height (m), above ground level (AGL)

Associated monitoring conditions

1. The concentration of oxides of nitrogen is determined by **continuous** instrumentation measurement referenced to dry 0 degrees Celsius, 101.32kPa and corrected to 15% by volume of oxygen.
2. **Continuous** monitoring must be undertaken anytime the **activity** is in operation.
3. All monitoring devices must be effectively calibrated and maintained in accordance with the manufacturer's instructions and/or written procedures relevant to the device.
4. Annual testing of contaminant releases to the atmosphere must be conducted by an **appropriately qualified person(s)** check performance of the continuous emissions monitoring system (CEMS) and must comply with the following:
    a. Monitoring provisions must comply with the Australian Standard AS 4323.1 – 1995 "Stationary source emissions Method 1: Selection of sampling positions" or the latest version of the AS.
    b. The following tests must be performed for annual testing of contaminant releases to the atmosphere:
        i. Gas velocity and volume flow rate;
        ii. Temperature;
    c. During the sampling period the following additional information must be gathered:
        i. Capacity rating.
5. Contaminants released from **ADPE** must be directed vertically upwards without any impedance or hindrance.
6. The **maximum** release limits do not apply in the following circumstances:
    a. During start-up or shut-down phases of the operation of the power station; or
    b. During periods where the electrical output load of the power station is being increased or decreased under **normal load** conditions.

A2.2	During start-up and shut-down phases and during periods where the electrical output load is being increased or decreased under **normal load** conditions, the power station must be operated in a way that minimises the mass load of NOx when measured over a rolling 4 hour average.
A2.3	The ducting and extraction systems that transfer effluent gases from one location to another must be constructed, operated and maintained so as to minimise any leakage of effluent gases and vapours to the atmosphere occurring from these sources.

A2.4	In the event of emissions of contaminants occurring from industrial plant or ducting and extraction systems that transfer effluent gases from one location to another, the fault or omission that resulted in that emission must be corrected as soon as practicable.
Agency interest: Land	
Condition number	**Condition**
L2.1	The holder of this environmental authority must take all reasonable and practicable measures to prevent the release or likelihood of release of contaminants to **land**.
Agency interest: Water	
Condition number	**Condition**
WT2.1	Contaminants must only be released to surface waters in accordance with **Table 2 – Water monitoring and release limits** and the associated requirements.

Table 2 – Water monitoring and release limits

Indicator(s)	Measurement (units) and averaging period	Minimum Release Limit	Maximum Release Limit	Minimum frequency	Authorised release location GDA94, Zone 56 Decimal degrees			
					Ref	Latitude	Longitude	Limit Type
Water								
pH	24 hour rolling average	6.5	9.0	continuous	WDP3	-27.6549	152.8103	Range
Temperature	C	NA	NA	continuous				NA
Dissolved Oxygen	mg/L	4	NA	weekly				Min
Suspended Solids	mg/L	NA	80	weekly				Max
Total Chlorine	mg/L	NA	0.7	weekly				Max
Total Dissolved Solids*	mg/L	NA	2500	weekly				Max

*Toxicant

Associated requirements:

1. The holder of this environmental authority is responsible for undertaking the water monitoring, as defined in Table 2 – Water monitoring and release limits:
   a. Whenever waters are being released via release point WDP3 simultaneously with process water being released to Oaky Creek Weir; and
   b. For at least 24 hours following the cessation of process water being released to Oaky Creek Weir.
2. Water quality monitoring must be in accordance with the methods prescribed in the current edition of the administering authority's Monitoring and Sampling Manual
3. Location of the sample and discharge point is identified on Figure 1 - "Site Plan: Swanbank Water discharge and sample points (Swanbank E Power Station)", map dated 13/03/2015, as shown in Attachment 1 – Approved plans.

WT2.2	Contaminants must only be released to surface waters in accordance with Table 3 - Contaminant release points and authorised contaminants/sources.

Table 3 – Contaminant release points and authorised contaminants/sources

Release Point	Contaminant / Source
WDP1 – overflow from the weir that discharges into Swanbank Lake on Oaky Creek.	a) Uncontaminated stormwater runoff; b) Uncontaminated drainage water from transformer bunds; c) E Station boiler blowdown and drainage of condensed boiler steam and turbine steam; d) Possible overflow of E Station cooling tower and possible drift from E Station cooling tower; e) Drainage of the demineralised water storage tanks.
WDP3 - overflow from the weir at the end of the sedimentation pond to Oaky Creek.	a) "E" Station cooling water system blowdown, cooling tower drainage and combined STP and DWTP waste water discharges; b) Uncontaminated stormwater runoff; c) Lake cooling water dilution water; d) Drainage water from the base of the Swanbank lake and dam wall drainage system; e) Drainage of the demineralisation plant water storage tanks.
WDP6 – outfall pipe to Swanbank Lake on Oaky Creek	a) Uncontaminated stormwater b) Plant hose down water c) Drainage of the demineralisation plant water storage tanks
WDP7 – Swanbank Lake on Oaky Creek.	a) Uncontaminated stormwater runoff b) Possible overflow of E Station cooling tower c) Possible drift from E Station cooling tower, d) Possible drainage water from E Station cooling tower.
WDP9 – outfall pipe to Swanbank Lake on Oaky Creek	a) Uncontaminated stormwater b) Plant hose down water c) Drainage of the demineralisation plant water storage tanks
WDP10 – outfall pipe to Swanbank Lake on Oaky Creek	a) Uncontaminated stormwater
WDP12 – overflow from the stormwater dam.	a) Stormwater b) Plan hose down water and general wash down water c) Emergency overflow of waste water containment pits d) Collected drift from cooling tower e) Possible overflow from city water (fire tank) and demineralizer water tank f) Drainage water from the cooling tower basin

	g) Potentially contaminated stormwater running into the Swanbank E site from adjacent properties to Swanbank Lake.

The locations of these release points are identified as WDP1, WDP3, WDP6, WDP7, WDP9, WDP10 and WDP12 on Figure 1 – "Site Plan: Swanbank Water discharge and sample points (Swanbank E Power Station)", map dated 13/03/2015, as shown in Attachment 1 – Approved plans.

WT2.3	In addition to WT2.1, the release of process water from the Swanbank E Power Station to **waters** via the release points specified in Table 2 must not: a) have any other properties at a concentration that is capable of causing environmental harm b) produce any slick or other visible evidence of oil or grease.
WT2.4	1. Where the monitoring results of release point WDP3 indicate an exceedance for chlorine and TDS, as specified in Table 2, a Critical Review Process built within a risk assessment framework is to be carried out aimed at quantifying the risks posed by that toxicant to the aquatic environments, or organisms found in and around the receiving waters at the release point. 2. Under Phase 1, a Desktop Review and written report must be prepared and submitted to the administrative authority within 28 days of the exceedance and address the following: a) Verification of the exceedance from the results of a re-analysis of the weekly sample, a resampling of WDP3 and the subsequent weekly sampling result; b) Processes or source water quality changes that may have contributed to the exceedance; c) Likelihood of continued exceedances without further action; d) Management options to avoid future exceedances; e) Any additional monitoring required to confirm the significance and duration of the exceedance; and f) Statement about potential effects on the receiving environment and the need for toxicity assessment. 3. A report submitted under Phase 1 is sufficient compliance with condition G1, if they apply. 4. Phase 2 starts where the conclusions of the Desktop Review identify an unacceptable risk of an adverse or significant effect on the receiving environment, and/or the **administering authority** also concludes from the report that further investigation is required. Phase 2 of the Critical Review Process is initiated as follows: 5. Under Phase 2 of the Critical Review Process, an **ATRA** will be conducted to quantify the risk posed by each and all toxicants that exceed the investigation and reporting trigger limit. This **ATRA** process must follow the hierarchical approach as detailed in the Australian and New Zealand Environment and Conservation Council's "Australian Water Quality Guidelines for Fresh and Marine Water Quality", December 2000 (ANZECC 2000). In the case where there is insufficient pre-existing data to accurately quantify or estimate the risk posed by a particular chemical to aquatic organisms, there may be a requirement, at the **administering authority's** discretion, to perform a: a) Toxicological Bioassay (**TB**), designed to demonstrate that a specific toxicant found exceeding the Investigation and Reporting Trigger Limit does not exhibit acute toxicological effects in appropriate test specimen(s) when exposed to concentrations consistent with those observed in monitoring data for no less than 48-96 hours, and/or

	b) Direct Toxicity Assessment (**DTA**), designed to demonstrate that the toxicants in the discharge water (as a whole) do not exhibit acute toxicological effects in appropriate test specimen(s) when exposed to concentrations observed in monitoring data for no less than 48-96 hours. 6. Where a **TB** or **DTA** is required, the bioassays are to: a) Be performed on organisms belonging to five taxa from four taxonomical groups per ANZECC 2000, and be approved by the **administering authority**. b) Be conducted on the discharge water that is a representation of normal plant operations. c) Demonstrate that there is no observable effect in any of the **TB** or **DTA** test organisms after 24 hours, and if an observable effect is recorded; then i. An Incident Management Program **(IMP)** comes into effect; and ii. The outcome of the **IMP** will be that there is no observable adverse effect in any of the test organisms after an identical (or equivalent) **TB** or **DTA** is repeated. A written report on the results, or progress of the **ATRA**, must be submitted to the **administering authority** within 28 days of completion of the **TB** or **DTA**.
WT2.5	The daily quantity of waters released via release point WDP3 must be determined by a flow meter or other accurate measuring device or method: a) whenever waters are being released via release point WDP3 simultaneously with process water being released to Oaky Creek Weir; and b) for at least 7 days following the cessation of process water being released to Oaky Creek Weir.
WT2.6	The total quantity (cubic metres) of wastewater released from release point WDP3 should be determined on at least a daily basis, when discharge is occurring, using appropriate methods, consistent with Australian Standards and other relevant documents, and records kept of such determinations and made available to the administering authority on request.
WT2.7	Under the below circumstances, at least 4ML of Swanbank Lake water must be released to Oaky Creek within a maximum period of 7 days: a) following the cessation of process water being released to Oaky Creek Weir where the average salinity (TDS) exceeds 2000mg/L for 4 consecutive samples measured at WDP3 in accordance with Condition (WT2.1); and b) when subsequent release(s) of process water will not occur for a period of 4 weeks.
WT2.8	Ponds used for the storage or treatment of aqueous waste must be constructed, installed and maintained to: • prevent any release of aqueous waste from the ponds • ensure the stability of the pond structure.

PART 3: CONDITIONS FOR PRESCRIBED ERA 56 AND PRESCRIBED ERA 63

The environmentally relevant activity(ies) described above must be conducted in accordance with the following conditions.

Agency interest: General

Condition number	Condition
G3.1	**Activities** conducted under this environmental authority must not be conducted contrary to any of the following limitations: a) Construction and operation of a Sewage Treatment Plant (STP) with a daily treatment design capacity of 75 Equivalent Person (EP). b) Construction and operation of a Demineralised Water Treatment Plant (DWTP) with a maximum effluent discharge of 250kL/day.
G3.2	All **records** must be kept for a period of at least five years and provided to the **administering authority** upon request.
G3.3	All analyses required under this environmental authority must be carried out by a laboratory that has National Association of Testing Authorities (**NATA**) certification, or an equivalent certification, for such analyses. The only exception to this condition is for *in situ* monitoring for release quality characteristic limits associated with the release of contaminants to waters.
G3.4	When required by the **administering authority**, monitoring must be undertaken in the manner prescribed by the **administering authority**, to investigate a complaint not considered 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.
G3.5	**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 f) actions taken.
Agency interest: Land	
Condition number	**Condition**
L3.1	Contaminants must not be released to **land.**
L3.2	Erosion and sediment control **measures** must be implemented and maintained to minimise erosion and the release of sediment.
Agency interest: Water	

Condition number	Condition
WT3.1	Contaminants must only be released to surface waters in accordance with Table 4– Contaminant Monitoring Locations and Release Limits and the associated requirements.

Table 4 – Contaminant Monitoring Locations and Release Limits

Indicator(s)	Measurement (units) and averaging period	Minimum Release Limit	Maximum Release Limit	Minimum frequency	Monitoring and Release Point location GDA94, Zone 56 Decimal degrees			
					Ref	Latitude	Longitude	Release Unit Type
Water								
pH	24 hour rolling average	6.5	9.0	continuous	WDP3	-27.6549	152.8103	Range
Dissolved Oxygen	mg/L	4	NA	weekly				Minimum
Suspended Solids	mg/L	NA	80	weekly				Maximum
Total Chlorine	mg/L	NA	0.7	weekly				Maximum
Total Dissolved Solids	mg/L	NA	2500	weekly				Maximum

Associated monitoring requirements

1. Monitoring must be undertaken anytime the activity is in operation and process water is being released.

2. Water quality monitoring must be in accordance with the methods prescribed in the current edition of the administering authority's Monitoring and Sampling Manual.

3. Monitoring and release point location must be in accordance with Figure 1 - "Site Plan: Swanbank Water discharge and sample points (Swanbank E Power Station)", map dated 13/03/2015, as shown in Attachment 1 – Approved plans"

Definitions

Key terms and/or phrases bolded in this environmental authority are defined in this section. 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. **ADPE** means air discharge point, E Station.

Appropriately qualified person(s) means a person or persons who has professional qualifications, training, skills or experience relevant to the EA requirement and can give authoritative assessment, advice and analysis in relation to the EA requirements using the relevant protocols, standards, methods or literature.

ATRA means Aquatic Toxicant Risk Assessment

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.

Continuous (in relation to emissions monitoring conditions) means the use of automatic monitoring and recording instrumentation where data is logged at regular intervals, with a minimum data capture rate of 80%.

Continuous monitoring means continuous monitoring and recording, except when the instrument is out of service for calibration or maintenance, provided that in such periods that the instrument is out of service for calibration or maintenance, the parameter will be accurately measured and recorded at least once per day by an alternate means.

Day means any 24 hour period.

DTA means Direct Toxicity Assessment.

EDMP means Environmental Discharge Management Program.

Environmental nuisance as defined in Chapter 1 of the *Environmental Protection Act 1994*. **IMP** means Incident Management Program.

Land does not include **waters.**

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

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

mg/L means milligrams per litre.

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

NATA means National Association of Testing Authorities.

Normal Load means that the unit is in a normal operating state, on Automatic Generation Control (AGC) and at or above a load of 40% of Maximum Continuous Rating.

Range means that the measured value of the quality characteristic or contaminant must not be greater than the higher release limit stated nor lower than the lower release limit stated.
Records include breach notifications, written procedures, analysis results, monitoring reports and monitoring programs required under a condition of this authority.
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:

1. a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or
2. a motel, hotel or hostel; or
3. a kindergarten, school, university or other educational institution; or
4. a medical centre or hospital; or
5. a protected area under the *Nature Conservation Act 1992*, the *Marine Parks Act 1992* or a World Heritage Area; or
6. a public thoroughfare, park or gardens; or
7. for noise, a place defined as a sensitive receptor for the purposes of the Environmental Protection (Noise) Policy 2008.

TB means Toxicological Bioassay.
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.

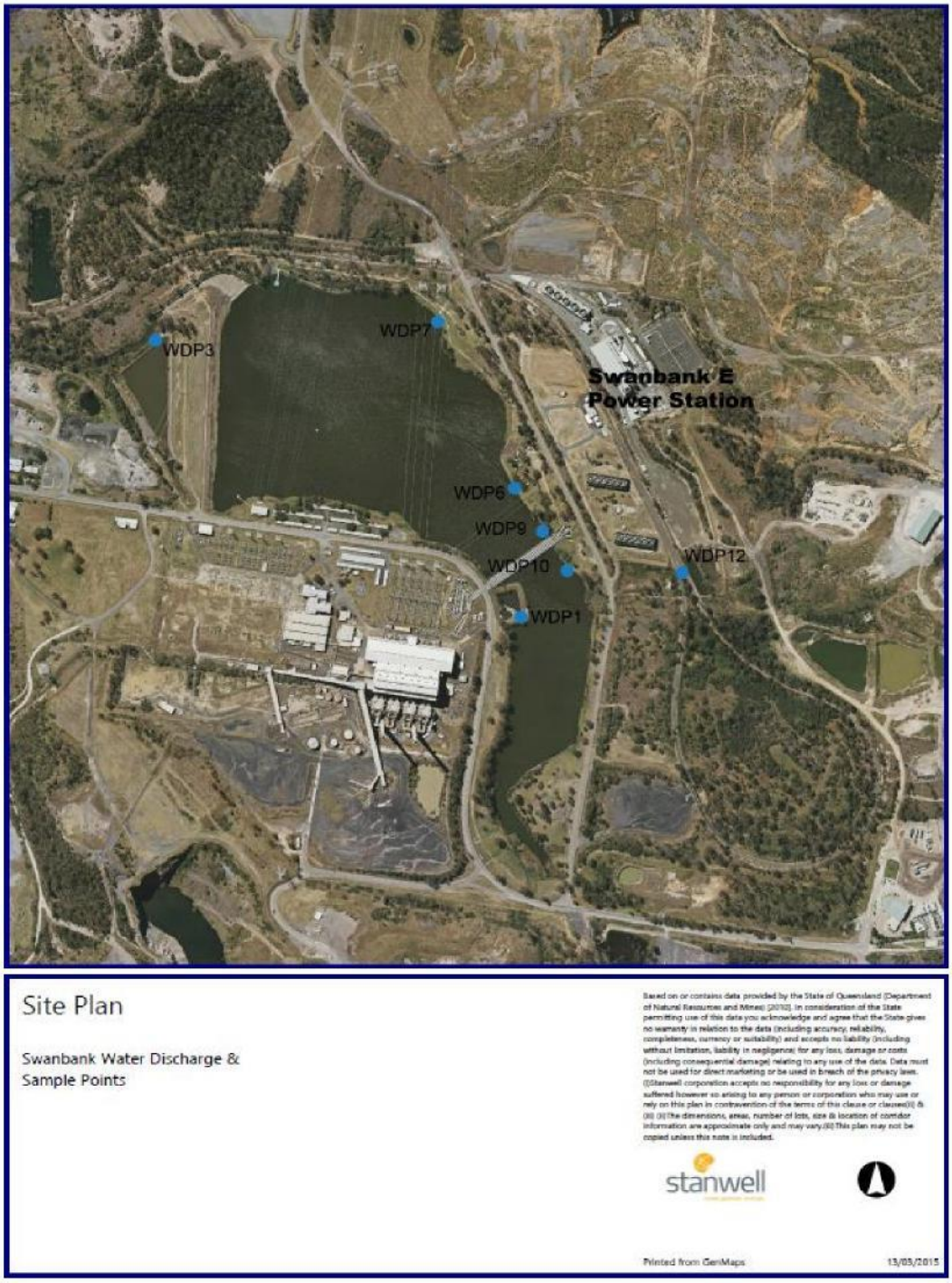
Appendices

Attachment 1- Approved plans

1. Figure 1- Site Plan: Swanbank Water Discharge and Sample Points (Swanbank E Power Station)

Attachment 1 - Approved plans

Figure 1 — Site Plan: Swanbank Water Discharge & Sample Points (Swanbank E Power Station)



END OF ENVIRONMENTAL AUTHORITY