Permit

Environmental Protection Act 1994

Environmental authority EPPR00708913

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

Environmental authority number: EPPR00708913

Environmental authority takes effect on 7 May 2020

Environmental authority holder(s)

Name(s)	
STANWELL CORPORATION LIMITED	Level 2 180 Ann Street BRISBANE CITY QLD 4000 Australia

Environmental Authority; EPPR00708913; Prescribed ERA; STANWELL CORPORATION

Environmentally relevant activity and location details

Environmentally relevant activity/activities	Location(s)
ERA 08 - Chemical Storage 3: Storing more than 500 cubic metres of chemicals of class C1 or C2 combustible liquids under AS 1940 or dangerous goods class 3 under subsection (1)(c)	Lot 187 on LN801219
ERA 64 - Water treatment 3: Treating 10ML or more raw water in a day	Lot 44 on SP140243
ERA 63 - Sewage Treatment 1: Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of (b-ii) more than 100 but not more than 1500EP otherwise	Lot 1 on RP608422
ERA 14 - Electricity Generation 2: Generating electricity by using a fuel, other than gas, at a rated capacity of (b) more than 150MW electrical	Lot 187 on LN801219
ERA 60 - Waste disposal 1: Operating a facility for disposing of, in a year, the following quantity of waste mentioned in subsection (1)(a) (d) more than 200,000t	Lot 44 on SP140243

ABN 46 640 294 485

Queensland Government

Environmentally relevant activity/activities	Location(s)
ERA 08 - Chemical Storage 3: Storing more than 500 cubic metres of chemicals of class C1 or C2 combustible liquids under AS 1940 or dangerous goods class 3 under subsection (1)(c)	Lot 1 on SP140243
ERA 64 - Water treatment 3: Treating 10ML or more raw water in a day	Lot 177 on LN2465
ERA 07 - Chemical Manufacturing 3: Manufacturing, in a year, a total of 200t or more of any of the following (b) agricultural chemical products or chemicals for biological control	Lot 2 on RP801218
ERA 14 - Electricity Generation 2: Generating electricity by using a fuel, other than gas, at a rated capacity of (b) more than 150MW electrical	Lot 1 on SP140243
ERA 60 - Waste disposal 1: Operating a facility for disposing of, in a year, the following quantity of waste mentioned in subsection (1)(a) (d) more than 200,000t	Lot 177 on LN2465
ERA 08 - Chemical Storage 3: Storing more than 500 cubic metres of chemicals of class C1 or C2 combustible liquids under AS 1940 or dangerous goods class 3 under subsection (1)(c)	Lot 44 on SP140243
ERA 64 - Water treatment 3: Treating 10ML or more raw water in a day	Lot 1 on RP608422
ERA 07 - Chemical Manufacturing 3: Manufacturing, in a year, a total of 200t or more of any of the following (b) agricultural chemical products or chemicals for biological control	Lot 187 on LN801219
ERA 14 - Electricity Generation 2: Generating electricity by using a fuel, other than gas, at a rated capacity of (b) more than 150MW electrical	Lot 44 on SP140243
ERA 60 - Waste disposal 1: Operating a facility for disposing of, in a year, the following quantity of waste mentioned in subsection (1)(a) (d) more than 200,000t	Lot 1 on RP608422

Environmentally relevant activity/activities	Location(s)
ERA 08 - Chemical Storage 3: Storing more than 500 cubic metres of chemicals of class C1 or C2 combustible liquids under AS 1940 or dangerous goods class 3 under subsection (1)(c)	Lot 177 on LN2465
ERA 63 - Sewage Treatment 1: Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of (b-ii) more than 100 but not more than 1500EP otherwise	Lot 2 on RP801218
ERA 07 - Chemical Manufacturing 3: Manufacturing, in a year, a total of 200t or more of any of the following (b) agricultural chemical products or chemicals for biological control	Lot 1 on SP140243
ERA 14 - Electricity Generation 2: Generating electricity by using a fuel, other than gas, at a rated capacity of (b) more than 150MW electrical	Lot 177 on LN2465
ERA 08 - Chemical Storage 3: Storing more than 500 cubic metres of chemicals of class C1 or C2 combustible liquids under AS 1940 or dangerous goods class 3 under subsection (1)(c)	Lot 1 on RP608422
ERA 63 - Sewage Treatment 1: Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of (b-ii) more than 100 but not more than 1500EP otherwise	Lot 187 on LN801219
ERA 07 - Chemical Manufacturing 3: Manufacturing, in a year, a total of 200t or more of any of the following (b) agricultural chemical products or chemicals for biological control	Lot 44 on SP140243
ERA 14 - Electricity Generation 2: Generating electricity by using a fuel, other than gas, at a rated capacity of (b) more than 150MW electrical	Lot 1 on RP608422
ERA 64 - Water treatment 3: Treating 10ML or more raw water in a day	Lot 2 on RP801218

ABN 46 640 294 485

Environmentally relevant activity/activities	Location(s)
ERA 63 - Sewage Treatment 1: Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of (b-ii) more than 100 but not more than 1500EP otherwise	Lot 1 on SP140243
ERA 07 - Chemical Manufacturing 3: Manufacturing, in a year, a total of 200t or more of any of the following (b) agricultural chemical products or chemicals for biological control	Lot 177 on LN2465
ERA 60 - Waste disposal 1: Operating a facility for disposing of, in a year, the following quantity of waste mentioned in subsection (1)(a) (d) more than 200,000t	Lot 2 on RP801218
ERA 64 - Water treatment 3: Treating 10ML or more raw water in a day	Lot 187 on LN801219
ERA 63 - Sewage Treatment 1: Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of (b-ii) more than 100 but not more than 1500EP otherwise	Lot 44 on SP140243
ERA 07 - Chemical Manufacturing 3: Manufacturing, in a year, a total of 200t or more of any of the following (b) agricultural chemical products or chemicals for biological control	Lot 1 on RP608422
ERA 60 - Waste disposal 1: Operating a facility for disposing of, in a year, the following quantity of waste mentioned in subsection (1)(a) (d) more than 200,000t	Lot 187 on LN801219
ERA 33 - Crushing, milling, grinding or screening Crushing, grinding, milling or screening more than 5000t of material in a year	Lot 44 on SP140243
ERA 08 - Chemical Storage 3: Storing more than 500 cubic metres of chemicals of class C1 or C2 combustible liquids under AS 1940 or dangerous goods class 3 under subsection (1)(c)	Lot 2 on RP801218

ABN 46 640 294 485

Environmentally relevant activity/activities	Location(s)
ERA 64 - Water treatment 3: Treating 10ML or more raw water in a day	Lot 1 on SP140243
ERA 63 - Sewage Treatment 1: Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of (b-ii) more than 100 but not more than 1500EP otherwise	Lot 177 on LN2465
ERA 14 - Electricity Generation 2: Generating electricity by using a fuel, other than gas, at a rated capacity of (b) more than 150MW electrical	Lot 2 on RP801218
ERA 60 - Waste disposal 1: Operating a facility for disposing of, in a year, the following quantity of waste mentioned in subsection (1)(a) (d) more than 200,000t	Lot 1 on SP140243

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 *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.

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

Enquiries:
Energy, Extractive and Southwest Compliance
Department of Environment and Science
Phone: 1300 130 372
Email: palm@des.qld.gov.au

Date issued: 07 May 2020

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)

Agency interest: General	
Condition number	**Condition**
Prevent and/or minimise likelihood of environmental harm	
A1	All reasonable and practicable **measures** must be taken to minimise the likelihood of environmental harm being caused.
Maintenance of measures, plant and equipment	
A2	**You** must: a) Install all **measures,** plant and equipment necessary to ensure compliance with the conditions of this environmental authority; and b) Maintain (which includes calibration) such **measures,** plant and equipment in a proper and efficient condition; and c) Operate such **measures,** plant and equipment in a proper and efficient manner.
A3	Contaminants must not be released to the environment other than in accordance with this environmental authority.
Records	
A4	All information and records that are required by the conditions of this environmental authority (except those as per condition A5) must be kept for a **minimum** of five (5) years.
A5	Environmental monitoring results must be kept until surrender of this environmental authority.
A6	Copies of any record required to be kept by a condition of this environmental authority must be provided to any authorised person or the **administering authority** on request.
Alterations	
A7	No change, replacement or operation of any plant or equipment is permitted if the change, alteration or operation of the plant or equipment increases, or is likely to substantially increase, the risk of environmental harm or **environmental nuisance**.
Procedures	
A8	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 and aware of their obligations under the *Environmental Protection Act 1994;* and f) ensure that reviews of environmental performance are undertaken at least annually.
Agency interest: Air	
Condition number	**Condition**
Release of Contaminants to the Atmosphere	
B1	Except as otherwise provided by the conditions described in the *Agency Interest: Air* section of this environmental authority the environmentally relevant activity/activities must be carried out by such reasonable and practicable means which may be necessary to prevent or minimise the release of contaminants to the atmosphere.
B2	Contaminants must only be released to the atmosphere from those release points specified in *Schedule 2 – Monitoring, Table 1 Release Point Description*.
B3	Contaminants released from each release point specified in *Schedule 2 – Monitoring, Table 1 Release Point Description* must be directed vertically upwards without any impedance or hindrance.
B4	Contaminants must be released to the atmosphere from a release point at a height not less than the corresponding height stated for that release point in *Schedule 2 – Monitoring, Table 1 Release Point Description.*
B5	Contaminants must not be released to the atmosphere from a release point at a concentration in excess of that stated in *Schedule 3 – Release limits, Table 1 Release Point Maximum Permitted Concentration of Contaminant Release Limits.*
Compliance with Emission Limits	
B6	The particulate emission and nitrogen oxide limits set out in *Schedule 3 – Release limits, Table 1 Release Point Maximum Permitted Concentration of Contaminant Release Limits* are applicable when the power generating units are synchronised with the electricity grid as indicated by the generator circuit breaker being closed.
B7	The particulate emission limits set out in *Schedule 3 – Release limits, Table 1 Release Point Maximum Permitted Concentration of Contaminant Release Limits* are not applicable during dust burden correlation of the particulate emission meters. The

	administering authority must be notified at least 7 days prior to undertaking dust burden correlation of the particulate emission meters.
B8	The holder of the environmental authority must notify the administering authority, of a direction made by the Australian Energy Market Operator (AEMO) under section 116 of the *National Electricity (Queensland) Law* or clause 4.8.9 of the National Electricity Rules, no later than 24 hours after the direction is given. The notification must include: (a) The date and time that the direction was issued by AEMO; and (b) The duration that the relevant direction remained in force.
B9	The limits prescribed in conditions B5 and C5 are not applicable to a unit of the power station if the unit is operating in accordance with a direction made by AEMO as stated in Condition B8. During a direction as stated in Condition B8 the holder of the environmental authority must comply with the limits defined in *Schedule 3 - Release limits, Table 3 Temporary release limits during a direction by AEMO.*
Air Contaminant Monitoring Equipment Conditions	
B10	Monitoring and recording devices are to be installed and operated to indicate to the plant operator the particulate and nitrogen oxide emission concentrations in the effluent gas at the prescribed measurement point, to produce a record of that information and to warn the plant operator with audible and visual alarms when the emission exceeds a level that, based on calibration data for the monitoring devices, indicates that the limits in *Schedule 3 – Release limits, Table 1 Release Point Maximum Permitted Concentration of Contaminant Release Limits* have been reached or exceeded.
B11	Monitoring of nitrogen oxides and particulates will be undertaken in accordance with *Schedule 2 –Monitoring, Table 2 Required Release Point Determinations.*
Liquid-Fuel Burning Conditions	
B12	The total sulphur content of any fuel burned in industrial fuel burning equipment is not to exceed 1.5% by weight.
Solid-Fuel Burning Conditions	
B13	The total sulphur content of coal burned in the boilers is not to exceed 0.8% on a **monthly** weighted average basis.
B14	**Biomass** is permitted to be co-fired with black coal in the coal-fired pulverised fuel boilers. The proportion of **biomass** burnt must not exceed 10% of the total fuel load at any one time.
Materials Handling Conditions	
B15	Water sprays are to be installed and operated on the coal receiving system taking into account all reasonable and practicable **measures** to minimise the release of dust and particulate matter to the atmosphere.

B16	All external dry material transfer conveyors must have a low profile roof with a troughed belt to minimise the exposed wind cross section.
Agency interest: Water	
Condition number	**Condition**
Release of Contaminants to Waters	
C1	Except as otherwise provided by the conditions of this environmental authority, the environmentally relevant activity/activities must be carried out by such practicable means which may be necessary to prevent or minimise the release of contaminants to waters.
C2	Other than in relation to the discharge to the Effluent Dam, Drains Reclaim Dam, Number 1, 2 or 3 Coal Stockpile Runoff Ponds and the Chemical Drains Pond, contaminants must not be directly or indirectly released from the licenced place to any waters or the bed and banks of any waters except as permitted under the *Agency Interest: Water.*
Release Point	
C3	The only contaminants permitted to be released from the licenced place at Monitoring Point 5 (MP5) are process waters and stormwater from the Northern Stormwater dam to waters described as an unnamed tributary of Quarry Creek.
Monitoring Points	

C4	For the purposes of checking compliance with conditions of this environmental authority relating to quality of wastes discharged, the Monitoring Points are defined as follows: Monitoring Point 1 (MP1): Unit 1/2 Blowdown metering pit. Monitoring Point 2 (MP2): Unit 3/4 Blowdown metering pit. Monitoring Point 3 (MP3): Quarry Creek upstream from the Northern Stormwater Dam and within 100 metres of the dam. Monitoring Point 4 (MP4): The point where Brickworks Road crosses Neerkol Creek. Monitoring Point 5 (MP5): The meter pit adjacent to the Northern Stormwater Dam at Stanwell Power Station. Monitoring Point 6 (MP6): The point where the Capricorn Highway crosses Neerkol Creek, adjacent to the flow-gauging station weir structure. Monitoring Point 7 (MP7): Raw water sampling point. Sampling to be undertaken at the inlet of the Clarified Raw Water Plant, or if the Clarified Raw Water Plant is not in service, at the inlet of the Raw Water Treatment Plant. Monitoring Point 8 (MP8): Quarry Creek riffle water sampling point. Sampling to be undertaken at Quarry Creek on the downstream side of the bridge below MP5. (Monitoring Point locations are shown in Schedule 1 – Approved plans; Figure 1 – Release Points 1, 2, 3 and 4 (RP1, RP2, RP3, RP4), and Monitoring Points 1 and 2 (MP1 and MP2); Figure 2 – Location of monitoring points 1, 2, 3, 5, 7 and 8 (MP1, MP2, MP3, MP5, MP7 and MP8); and Figure 3 – Location of Monitoring Points 4 and 6 (MP4 and MP6).)
Quantity of Process Waters Released	
C5	The quantity of process waters released during any **day** must not exceed 18,000 cubic metres measured as the combined total volume of water from Monitoring Points 1 and 2 except when Condition C6 is applicable.
C6	Where the electrical conductivity (EC) of process water exceeds 500 µS/cm at MP7, the quantity of process waters released during any one **day** must not exceed 40,000 cubic metres, measured as the combined total volume of water from Monitoring Points 1 and 2.
C7	If during the period where Condition C6 applies and the EC of process water measured at MP7 remains below 500 µS/cm for 21 consecutive days, return to compliance with the release quantity detailed in Condition C5 must occur.
C8	Where the EC of process waters exceeds 500 µS/cm at MP7, the monitoring point for sampling of total residual oxidant (as CI) to waters must change to MP8.

C9	If during the period where Condition C8 applies and the EC of process water measured at MP7 remains below 500 µS/cm for 21 consecutive days, monitoring total residual oxidant (as Cl) must occur at MP5.
Quality Characteristics Of Release to Waters	
C10	The release of contaminants to waters must comply, at the sampling or measurement points, with each of the limits specified in *Schedule 3 – Release Limits, Table 2 Release Quality Characteristic Limits* for each quality characteristic.
Pump Stations	
C11	Pump stations whose failure will result in a direct or indirect release of contaminants to waters must be fitted with stand-by pumps and pump-failure alarms. Pump failure alarms must be able to operate without mains power if such power failure occurs.
C12	**You** shall notify the **administering authority** in the event of a sewage overflow which has reached the Northern Stormwater Dam.
Contaminant Releases Caused by Rainfall	
C13	Other than in relation to runoff into the Drains Reclaim Dam, runoff from the Coal Stockpile into the Coal Stockpile Runoff Ponds and runoff from the former landfill site and except as provided by the conditions of this environmental authority, the environmentally relevant activities must be carried out by such practicable means necessary to prevent or minimise the contact of incident rainfall and stormwater runoff with wastes or other contaminants, and prevent or minimise the release or likelihood of release of any such contaminated runoff from the licenced place.
Agency interest: Land	
Condition number	**Condition**
D1	Except as otherwise provided by the conditions of this environmental authority, the environmentally relevant activities must be carried out by such practicable means necessary to prevent or minimise the release or likelihood of release of contaminants to **land.**
Agency interest: Noise	
Condition number	**Condition**
Release of noise	
E1	For the purposes of the Environmental Protection (Noise) Policy the Nature Refuge, as shown in *Schedule 1 – Approved plans, Figure 4 – Location of Nature Refuge* is not a noise sensitive place.

Agency interest: Waste	
Condition number	**Condition**
General	
F1	Waste must not be released to the environment, stored, transferred or disposed contrary to any condition of this environmental authority.
F2	Waste must not be burnt or allowed to burn on the licenced site or removed and burnt elsewhere unless specifically permitted by this environmental authority.
F3	An area must be set aside for the segregation and storage of recyclable solid wastes.
F4	Where a no-cost recycling service is available, recyclable waste must not be deposited in the general waste stream.
Storage and Handling Conditions	
F5	All liquid waste, chemical and above-ground petroleum product storage areas shall be bunded and maintained so as to be impervious to the material stored within it.
F6	All liquid waste, chemical and above-ground petroleum product storage tanks must be bunded so that the capacity of the bund is sufficient to contain at least 110 % of the volume of the largest storage tank.
F7	**You** must ensure that any stormwater captured within bunded areas is treated to remove contaminants or wastes prior to any off-site release.
F8	**You** shall install, conduct and maintain all petroleum product storage tanks in accordance with the provisions of Australian Standard 1940, entitled "The storage and handling of flammable and combustible liquids".
F9	All loading/unloading of bulk materials must take place only within designated vehicle loading/unloading areas.
On-site Disposal of Wastes	
F10	**You** are permitted to dispose of on-site by combustion in the Station's boilers: • Used ion exchange resin from water treatment. • Exhausted oil and chemical sorbents. • Boiler and Superheater Chemical Clean iron and copper bearing waste solutions.
Regulated Wastes	
F11	All regulated wastes must only be stored, treated, or reprocessed within those areas designated for those purposes.
Off Site Movement of Regulated Wastes	

F12	Where regulated waste is removed from the licenced place (other than by a release as permitted under another schedule of this environmental authority), **you** must monitor and record the following: a) the date, quantity and type of waste removed; and b) name of the waste transporter and/or disposal operator that removed the waste; and c) the intended treatment/disposal destination of the waste. (NOTE: Records of documents maintained in compliance with a waste tracking system established under the *Environmental Protection Act 1994* or any other law for regulated waste will be deemed to satisfy this condition).
F13	Regulated waste must not be sent for disposal at any facility without the written approval of the person operating the facility.
F14	**You** must ensure that only a transporter possessing a current licence granted by the **administering authority** for the transport of regulated waste shall be used for the removal of the licenced waste from the facility.
Ash Disposal	
General	
F15	The only wastes permitted for disposal in the ash disposal area (referred to hereafter as the ash storage area (ASA)) are: • bottom ash and fly ash mixed with chemical drains pond water and/or service water; • pulverised coal mill rejects; • coal combustion products; • silt recovered from the water treatment process; and • ash, coal and silt recovered from site dredging activities.
F16	Once the final lift height for an active zone has been reached, ash is to be capped with a **minimum** of 300 mm of cover material (including stored topsoil) suitable for supporting vegetative cover as required in Condition F17.
F17	Once capped with cover material in accordance with condition F16, a suitable grass cover must be established as soon as reasonably practicable.
F18	A **minimum** buffer of 25 metres must be maintained between ASA embankments and Stony Creek or Sandy Creek.
F19	Rainfall and irrigation runoff originating on capped and grassed areas must be directed to the evaporation pond.
Agency interest: Regulated structures	
Condition number	**Condition**
Assessment of consequence category	

G1	The **consequence category** of any structure must be **assessed** by a **suitably qualified and experienced person** in accordance with the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)* at the following times: a) prior to the design and construction of the structure, if it is not an existing structure; or b) if it is an existing structure, prior to the adoption of this Agency Interest; or c) prior to any change in its purpose or the nature of its stored contents.
G2	A **consequence assessment** report and **certification** must be prepared for each **structure assessed** and the report may include a **consequence assessment** for more than one structure.
G3	**Certification** must be provided by the **suitably qualified and experienced person** who undertook the **assessment,** in the form set out in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635).*
Design and construction[1] of a regulated structure	
G4	Conditions G5 to G9 inclusive do not apply to **existing structures.**
G5	All **regulated structures** must be designed by, and **constructed[2] under** the supervision of, a **suitably qualified and experienced person** in accordance with the requirements of the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635).*
G6	**Construction** of a **regulated structure** is prohibited unless the **holder** has submitted to the **administering authority** a consequence category **assessment** report and **certification,** the **design** and **design plan,** and the associated operating procedures, that have been **certified** by a **suitably qualified and experienced person** in compliance with the relevant condition of this **authority.**
G7	**Certification** must be provided by the **suitably qualified and experienced person** who oversees the preparation of the **design plan** in the form set out in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635),* and must be recorded in the Regulated Dams/Levees register.

[1] **Construction** of a **dam** includes modification of an existing **dam —** refer to the definitions in EHP Guideline *Structures which are dams or levees **constructed** as part of environmentally relevant activities (EM634).*
[2] **Certification** of design and **construction** may be undertaken by different persons.

G8	**Regulated structures** must: a) be designed and **constructed** in accordance with and conform to the requirements of the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635);* b) be designed and **constructed** with due consideration given to ensuring that the design integrity would not be compromised on account of: (i) floodwaters entering the **regulated dam** from any **watercourse** or drainage line; and (ii) wall failure due to erosion by floodwaters arising from any **watercourse** or drainage line. c) have the floor and sides of the **dam** designed and **constructed** to prevent or minimise the passage of the wetting front and any entrained contaminants through either the floor or sides of the **dam** during the operational life of the **dam** and for any period of decommissioning and rehabilitation of the **dam.**
G9	**Certification** by the **suitably qualified and experienced person** who supervises the **construction** must be submitted to the **administering authority** on the completion of **construction** of the **regulated structure,** and state that: a) the 'as **constructed**' drawings and specifications meet the original intent of the **design plan** for that **regulated structure;** b) **construction** of the **regulated structure** is in accordance with the **design plan.**
Operation of a regulated structure	
G10	Operation of a **regulated structure,** except for an **existing structure,** is prohibited unless: a) the **holder** has submitted to the **administering authority** (i) one paper copy and one electronic copy of the **design plan** and **certification** of the '**design plan**' in accordance with condition G6; and (ii) a set of 'as **constructed**' drawings and specifications; and (iii) **certification** of those 'as **constructed** drawings and specifications' in accordance with condition G9; and (iv) where the **regulated structure** is to be managed as part of an integrated containment system for the purpose of sharing the Design Storage Allowance (DSA) volume across the system, a copy of the **certified** system **design plan.** b) the requirements of this **authority** relating to the **construction** of the **regulated structure** have been met; c) the **holder** has entered the details required under this **authority,** into a **Register of Regulated Dams**; and d) there is a current **operational plan** for the **regulated structures.**
G11	For **existing structures** that are **regulated structures:** a) where the **existing structure** that is a **regulated structure** is to be managed as part of an **integrated containment system** for the purpose of sharing the DSA volume across the system, the **holder** must submit to the **administering authority** within 12 months of the commencement of this condition a copy of the **certified system design plan** including that structure; and b) There must be a current **operational plan** for the **existing structures.**

G12	Each **regulated structure** must be maintained and operated, for the duration of its operational life until decommissioned and rehabilitated, in a manner that is consistent with the current **operational plan** and, if applicable, the current **design plan** and associated **certified** 'as **constructed'** drawings.
Mandatory Reporting Level	
G13	Conditions G14 to G17 inclusive only apply to Regulated Structures which have not been **certified** as low consequence category for 'failure to contain — overtopping'.
G14	The **Mandatory Reporting Level** (the **MRL)** must be marked on a **regulated dam** in such a way that during routine inspections of that **dam,** it is clearly observable.
G15	The **holder** must, as soon as practical and within forty-eight (48) hours of becoming aware, notify the **administering authority** when the level of the contents of a **regulated dam** reaches the MRL.
G16	The **holder** must, immediately on becoming aware that the MRL has been reached, act to prevent the occurrence of any unauthorised discharge from the **regulated dam.**
G17	The **holder** must record any changes to the MRL in the Register of Regulated Structures.
Design Storage Allowance	
G18	Conditions G19 to G22 inclusive only apply to Regulated Structures which have not been **certified** as low consequence category for 'failure to contain — overtopping'.
G19	The **holder** must assess the performance of each **regulated dam** or linked containment system over the preceding November to May period based on actual observations of the available storage in each **regulated dam** or linked containment system taken prior to 1 July of each year.
G20	By 1 November of each year, storage capacity must be available in each **regulated dam** (or network of linked containment systems with a shared DSA volume), to meet the **Design Storage Allowance (DSA)** volume for the **dam** (or network of linked containment systems).
G21	The **holder** must, as soon as possible and within forty-eight (48) hours of becoming aware that the **regulated dam** (or network of linked containment systems) will not have the available storage to meet the DSA volume on 1 November of any year, notify the **administering authority.**
G22	The **holder** must, immediately on becoming aware that a **regulated dam** (or network of linked containment systems) will not have the available storage to meet the DSA volume on 1 November of any year, act to prevent the occurrence of any unauthorised discharge from the **regulated dam** or linked containment systems.
Annual inspection report	
G23	Each **regulated structure** must be inspected each calendar year by a **suitably qualified and experienced person.**

G24	At each annual inspection, the condition and adequacy of all components of the **regulated structure** must be **assessed** and a **suitably qualified and experienced person** must prepare an **annual inspection report** containing details of the **assessment** and include recommended actions to ensure the integrity of the **regulated structure.**
G25	The **suitably qualified and experienced person** who prepared the **annual inspection report** must **certify** the report in accordance with the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635).*
G26	The **holder** must: a) Within 20 business days of receipt of the **annual inspection report,** provide to the **administering authority:** (i) the recommendations section of the **annual inspection report;** and (ii) if applicable, any actions being taken in response to those recommendations; and b) If, following receipt of the recommendations and (if applicable) actions, the **administering authority** requests a full copy of the **annual inspection report** from the **holder,** provide this to the **administering authority** within 10 business days[3] of receipt of the request.
Decommissioning and rehabilitation	
G27	Dams must not be abandoned but be either: a) decommissioned and rehabilitated to achieve compliance with condition G28; or b) be left in-situ for a **beneficial use(s)** provided that: (i) it no longer contains contaminants that will migrate into the environment; and (ii) it contains water of a quality that is demonstrated to be suitable for its intended beneficial use(s); and (iii) the **administering authority,** the **holder** of the environmental **authority** and the landholder agree in writing that the **dam** will be used by the landholder following the cessation of the environmentally relevant activity(ies).

[3] Please note that for some model conditions, such as model conditions for dams associated with a resource activity — non-mining activity, the notification requirements may be located in a separate part of the conditions of an environmental authority (e.g. under notification requirement conditions).

G28	After decommissioning, all significantly disturbed **land** caused by the carrying out of the environmentally relevant activity(ies) must be rehabilitated to meet the following final acceptance criteria: a) the landform is safe for humans and fauna; b) the landform is stable with no subsidence or erosion gullies for at least three (3) years; c) any contaminated **land** (e.g. contaminated soils) is remediated and rehabilitated; d) not allowing for acid mine drainage; or e) there is no ongoing contamination to **waters** (including groundwater); f) rehabilitation is undertaken in a manner such that any actual or potential acid sulphate soils on the area of significant disturbance are treated to prevent or minimise environmental harm in accordance with the *Instructions for the treatment and management of acid sulphate soils (2001);* g) for **land** that is not being cultivated by the landholder: (i) groundcover, that is not a declared pest species is established and self-sustaining.
Register of Regulated Dams	
G29	A **Register of Regulated Dams** must be established and maintained by the **holder** for each **regulated dam.**
G30	The **holder** must provisionally enter the required information in the **Register of Regulated Dams** when a **design plan** for a **regulated dam** is submitted to the **administering authority.**
G31	The **holder** must make a final entry of the required information in the **Register of Regulated Dams** once compliance with condition G10 and G11 has been achieved.
G32	The **holder** must ensure that the information contained in the **Register of Regulated Dams** is current and complete on any given **day.**
G33	All entries in the **Register of Regulated Dams** must be approved by the chief executive officer for the **holder** of this **authority,** or their delegate, as being accurate and correct.
G34	The **holder** must, at the same time as providing the annual return, supply to the **administering authority** a copy of the records contained in the **Register of Regulated Dams,** in the electronic format required by the **administering authority.**
Transitional arrangements	
G35	All existing structures that have not been assessed in accordance with either the Manual or the former Manual for Assessing Hazard Categories and Hydraulic Performance of Dams must be assessed and certified in accordance with the Manual within 6 months of amendment of the authority adopting this schedule.
G36	All existing structures must subsequently comply with the timetable for any further assessments in accordance with the Manual specified in Table 1 (Transitional hydraulic performance requirements for existing structures), depending on the consequence category for each existing structure assessed in the most recent previous certification for that structure.

G37

Table 1 ceases to apply for a structure once any of the following events has occurred:

a) it has been brought into compliance with the hydraulic performance criteria applicable to the structure under the Manual; or

b) it has been decommissioned; or

c) it has been certified as no longer being assessed as a regulated structure.

G38

Certification of the transitional assessment required by G35 and G36 (as applicable) must be provided to the administering authority within 6 months of amendment of the authority adopting this schedule.

Table 1: Transitional hydraulic performance requirements for existing structures

Transition period required for existing structures to achieve the requirements of the *Manual for Assessing Consequence Categories and Hydraulic Performance of Dams*			
Compliance with criteria	**High consequence**	**Significant consequence**	**Low consequence**
>90% and a history of good compliance performance in last 5 years	No transition required	No transition required	No transitional conditions apply. Review consequence assessment every 7 years.
>70%-≤90%	Within 3 years, unless otherwise agreed with the administering authority, based on no history of unauthorised releases.	Within 6 years, unless otherwise agreed with the administering authority, based on no history of unauthorised releases.	No transitional conditions apply. Review consequence assessment every 7 years.
>50%-≤70%	Within 1 years unless otherwise agreed with the administering authority, based on no history of unauthorised releases.	Within 3 years unless otherwise agreed with the administering authority, based on no history of unauthorised releases.	Review consequence assessment every 7 years.
≤50%	Within 1 years or as per compliance requirements (e.g. TEP timing).	Within 1 years or as per compliance requirements (e.g. TEP timing).	Review consequence assessment every 5 years.
Regulated levee designed to prevent the ingress of clean flood water	Within 1 year unless otherwise agreed with the administering authority.		

	<100% compliant[4]	
	The transitional periods specified in table 1 are in force from the 15th October 2018.	
Agency Interest: Monitoring and Reporting Requirements		
Condition number	**Condition**	
Complaint Recording		
H1	All complaints received by you relating to operations at the licenced place must be recorded in a log book with the following details: a) time and date of complaint; b) type of communication (telephone, letter, personal etc.); c) name, contact address and contact telephone number of complainant (Note: if the complainant does not wish to be identified then "Not identified" is to be recorded); d) response and investigation undertaken as a result of the complaint; e) name of person responsible for investigating complaint; and f) action taken as a result of the complaint investigation and signature of responsible person.	
Condition Breaches		
H2	Any breach of a condition of this environmental authority, must be reported to the **administering authority** as soon as practicable, or at most, within 24 hours of **you** becoming aware of the breach. Records must be kept including full details of the breach and any subsequent actions undertaken.	
Requirement for an Appropriately Qualified Person		
H3	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.	
Requests for monitoring by the administering authority		
H4	When requested by the **administering authority, you** must undertake relevant specified monitoring within a reasonable timeframe nominated or agreed to by the **administering authority** to investigate any complaint of environmental nuisance or environmental harm.	

[4] Levees designed for the diversion of contaminated waters or protection of the structural integrity of a dam are not to be considered as part of this provision. These levees are considered a key design element of the relevant dam and transitional periods should as such align to that relevant compliance criteria and consequence category.

H5	The results of any monitoring requested under condition H4 must be analysed and interpreted by an **appropriately qualified person.**
H6	The results of any monitoring requested under condition H4 must be presented to the **administering authority** within 20 business days of receiving the final report from the **appropriately qualified person** who undertook the analysis and prepared the report.
H7	All analyses required under Condition H4 must be carried out by an **appropriately qualified** person(s) agreed to in writing by the **administering authority**.
Monitoring of Contaminant Releases to the Atmosphere	
H8	**You** must conduct and keep records of a monitoring program of contaminant releases to the atmosphere at the release points, frequency, and for the parameters specified in Schedule 2 - Table 2 and which complies with the following: a) Monitoring provisions for the release points listed in *Schedule 2 – Monitoring Table 2 Required Release Point Determinations* must comply with the Australian Standard 4323.1-1995 "Stationary Source Emission Methods 1: Selection of sampling positions" or more recent editions. b) The following monitoring must be performed for each required determination specified in *Schedule 2 – Monitoring Table 2 Required Release Point Determinations*: (i) Particulates; and (ii) Nitrogen oxides. c) Where practicable, samples taken must be representative of the contaminants discharged under normal operating conditions.
Dust and particulate matter	
H9	**You** must take all reasonable and practicable **measures** to limit the release of dust and/or particulate matter resulting from the **activity.**
Monitoring of Releases to Waters	
H10	Convenient access and suitable facilities for sampling shall be maintained at all reasonable times at Monitoring Points MP1, MP2 and MP5.
H11	**You** are responsible for determinations of the volume of waters released in any one **day** from each of the release points described and at the frequency specified in *Schedule 2 - Monitoring Table 3 Release Points and Reporting Requirements for Waters Discharged.*
H12	**You** are responsible for determinations of water quality parameters described in this environmental authority, and at the monitoring points and frequencies specified in *Schedule 2 - Monitoring Table 4 Water Quality Monitoring Locations and Monitoring Frequency*.

Receiving Environment Monitoring Program (REMP)	
H13	**You** must develop and implement a Receiving Environment Monitoring Program (REMP) to monitor, identify and describe any adverse impacts to surface water environmental values due to the discharge of blowdown water from the licenced place. The proposed monitoring program must include periodic monitoring of the potential effects of the discharge of blowdown water on the receiving environment following the issuing of this licence. For the purposes of the REMP, the receiving environment can be defined as the waters of Neerkol and Scrubby Creeks and connected or surrounding waterways within 16 km downstream of the licenced release point. The REMP should encompass regular monitoring of key indicators for recognised environmental values located adjacent to or downstream of the release point, and key ecosystem health indicators at sensitive receptor sites in the receiving waters that are likely to be directly affected or could potentially be indirectly affected by a release of water discharged from the licenced place.
H14	A REMP design document that details the requirements and inclusions of the REMP must be prepared in accordance with the latest version of the REMP Guideline and submitted for review to the **administering authority** within 6 months after this licence has been issued. **You** must take due consideration of any comments provided by the **administering authority** through revision of the REMP design document. The most current version of the REMP design document must be made available upon request to the **administering authority.**
H15	A REMP report outlining the findings of the program, including all monitoring results and interpretations in accordance with the REMP Guideline must be prepared annually and made available upon request to the **administering authority.**
Groundwater Monitoring Program	
H16	A Groundwater Monitoring Program (GMP) must be developed and implemented which is able to detect release of contaminants to groundwater from: a) the ASA; b) the coal stockpiling area; c) the Effluent Dam, Drains Reclaim Dam, Number 1, 2 and 3 Coal Stockpile Runoff Ponds and the Chemical Drains Pond; and d) the on-site sewage treatment plant and the sewage treatment plant holding ponds.
H17	The GMP must be developed and implemented by an **appropriately qualified person.**
H18	The GMP must include, but not necessarily be limited to: a) locations of monitoring sites; b) monitoring methodology; and c) the establishment of suitable water quality indicators for detecting impacts on groundwater quality.
H19	Groundwater must be monitored at the locations and frequencies defined in the GMP.

H20	The GMP must be developed and submitted to the **administering authority** for review within 6 months of the issue date of this environmental authority. **You** must take due consideration of any comments provided by the **administering authority** through revision of the GMP.
H21	The GMP must be reviewed by 30 June each year by an **appropriately qualified person.**
H22	The annual review of the GMP must at a **minimum** include an **assessment** of the adequacy of the monitoring program and recommend actions to ensure that any groundwater impacts are effectively managed.
H23	In relation to the annual review, **you** must: a) upon receipt of the annual review, consider the review and its recommendations; and b) within twenty (20) business days of receipt of the annual review, notify the **administering authority** in writing, of actions being taken to address any recommendations from the review.
H24	A copy of the annual review must be provided to the **administering authority** upon request.
Agency Interest: Environmentally Relevant Activity 33, Screening	
Condition number	**Condition**
I1	Crushing, milling and grinding operations are not permitted to be carried out as part of environmentally relevant activity 33.
I2	Screening activities conducted under this environmental authority must only occur within the area identified within *Schedule 4 - Environmentally Relevant Activity 33, Screening location.*
I3	Only coal and **coal combustion products** are permitted for screening.

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.

Term	Definition
4-hour moving average	A calculation based upon data collected over the previous 4 hours. It is updated at an interval of not more than 10 minutes.
Activity	The environmentally relevant activities, whether resource activities or prescribed activities, to which the environmental authority relates.
Administering authority	The Department of Environment and Science or its successor.
Appropriately qualified person	A person(s) 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.
Biomass	Biomass consists of timber or timber products limited to: (I) tree prunings, trimmings and other vegetation from municipal parks, gardens and private residences; (ii) other timber and vegetation wastes collected at waste transfer stations in municipalities; (iii) sawdust, shavings and by-products from manufactured wood operations; (iv) forest and mill residues from softwood plantations; and (v) demolition and construction waste materials such as broken timber, shipping pallets, packing crates and form-work; or (vi) other such biomass materials which may be approved by the Administering Authority. Biomass must not include chemically treated timber except where this is a minor constituent of the biomass and has been commingled at the waste source.
Continuous monitoring	The use of automatic monitoring and recording instrumentation where data is logged at regular intervals, with a minimum data capture rate of 80%.
Coal Combustion Products	means fly ash, furnace bottom ash or cenosphere(s) resulting from the burning of coal within coal fired power stations and coal fired boilers where no other source of fuel is mixed other than petroleum based gas or liquid fuel for ignition support.
Day	From 00:00 hrs to 24:00 hrs.
Environmental Nuisance	Environmental nuisance as defined in Chapter 1 of the *Environmental Protection Act 1994.*
Land	Land excluding water and the atmosphere.

Maximum	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.
Minimum	The measured value of the quality characteristic or contaminant must not be less than the release limit stated.
Monthly	Once in each calendar month, and separated as close to as practically possible by thirty (30) days.
Normal cubic metre (Nm^3)	The volume of dry gas which occupies 1 cubic metre at a temperature of zero degrees Celsius and at an absolute pressure of 101.3 kilopascals.
Normal operating conditions	The normal operating state of the Unit and it means that the Unit is operating on a stable coal flame (three or more coal pulverisers in service and oil support is no longer necessary). For all practical purposes, this shall be defined as "at or above a load of 140MW" and when the power generating units are synchronised with the electricity grid as indicated by the generator circuit breaker being closed.
Waters	Includes all or any part of a river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, unconfined water in natural or artificial watercourses, bed and banks of a watercourse, dams, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off, and groundwater.
Week	From 00:00 hrs Monday to 24:00 hrs Sunday.
Weekly	Once in each week, and separated as close to as practically possible by seven (7) consecutive days.
You	The holder of the environmental authority.

The following definitions relate to words and terms used in Agency Interest: Regulated Structures

Term	Definition
Affected person	Is someone whose drinking water can potentially be impacted as a result of discharges from a dam or their life can be put at risk due to dwellings or workplaces being in the path of a dam break flood.
Annual inspection report	Means an assessment prepared by a suitably qualified and experienced person containing details of the assessment against the most recent consequence assessment report and design plan (or system design plan); a) against recommendations contained in previous annual inspections reports; b) against recognised dam safety deficiency indicators; c) for changes in circumstances potentially leading to a change in consequence category; d) for conformance with the conditions of this authority; e) for conformance with the 'as constructed' drawings; f) for the adequacy of the available storage in each regulated dam, based on an actual observation or observations taken after 31 May each year but prior to 1

	November of that year, of accumulated sediment, state of the containment barrier and the level of liquids in the dam (or network of linked containment systems); g) for evidence of conformance with the current operational plan.
Annual exceedance probability (AEP)	The probability that at least one event in excess of a particular magnitude will occur in any given year.
Assessed or assessment	By a suitably qualified and experienced person in relation to a consequence assessment of a dam, means that a statutory declaration has been made by that person and, when taken together with any attached or appended documents referenced in that declaration, all of the following aspects are addressed and are sufficient to allow an independent audit of the assessment: a) exactly what has been assessed and the precise nature of that determination; b) the relevant legislative, regulatory and technical criteria on which the assessment has been based; c) the relevant data and facts on which the assessment has been based, the source of that material, and the efforts made to obtain all relevant data and facts; and d) the reasoning on which the assessment has been based using the relevant data and facts, and the relevant criteria.
Associated works	In relation to a dam, means: a) operations of any kind and all things constructed, erected or installed for that dam; and b) any land used for those operations.
Authority	An environmental authority or a development approval.
Certification	Means assessment and approval must be undertaken by a suitably qualified and experienced person in relation to any assessment or documentation required by this Manual, including design plans, as constructed' drawings and specifications, construction, operation or an annual report regarding regulated structures, undertaken in accordance with the Board of Professional Engineers of Queensland Policy Certification by RPEQs (ID: 1.4 (2A)).
Certifying, certify or certified	Have a corresponding meaning as ‘certification’
Construction or constructed	In relation to a dam includes building a new dam and modifying or lifting an existing dam, but does not include investigations and testing necessary for the purpose of preparing a design plan.
Consequence	In relation to a structure as defined, means the potential for environmental harm resulting from the collapse or failure of the structure to perform its primary purpose of containing, diverting or controlling flowable substances.
Dam	A land-based structure or a void that contains, diverts or controls flowable substances, and includes any substances that are thereby contained, diverted or controlled by that land-based structure or void and associated works.
Dam crest volume	The volume of material (liquids and/or solids) that could be within the walls of a dam at any time when the upper level of that material is at the crest level of that dam. That is, the instantaneous maximum volume within the walls, without regard to flows entering or leaving (for example, via spillway).
Design plan	A document setting out how all identified consequence scenarios are addressed in the planned design and operation of a regulated structure.

Design storage allowance (DSA)	An available volume, estimated in accordance with the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)* published by the administering authority, must be provided in a dam as at 1 November each year in order to prevent a discharge from that dam to an annual exceedance probability (AEP) specified in that Manual.
Designer	For the purposes of a regulated dam, means the certifier of the design plan for the regulated dam.
Development approval	A development approval under the *Integrated Planning Act 1997* or the *Sustainable Planning Act 2009* in relation to a matter that involves an environmentally relevant activity under the *Environmental Protection Act 1994.*
Emergency action plan	Documentation forming part of the operational plan held by the holder or a nominated responsible officer, that identifies emergency conditions that sets out procedures and actions that will be followed and taken by the dam owner and operating personnel in the event of an emergency. The actions are to minimise the risk and consequences of failure, and ensure timely warning to downstream communities and the implementation of protection measures. The plan must require dam owners to annually update contact.
Existing structure	A structure that was in existence prior to the adoption of this schedule of conditions under the authority.
Flowable substance	Matter or a mixture of materials which can flow under any conditions potentially affecting that substance. Constituents of a flowable substance can include water, other liquids fluids or solids, or a mixture that includes water and any other liquids fluids or solids either in solution or suspension.
Holder	a) Where this document is an environmental authority, any person who is the holder of, or is acting under, that environmental authority; or b) where this document is a development approval, any person who is the registered operator for that development approval.
Hydraulic performance	The capacity of a regulated dam to contain or safely pass flowable substances based on the design criteria specified for the relevant consequence category in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)*.
Levee	An embankment that only provides for the containment and diversion of stormwater or flood flows from a contributing catchment, or containment and diversion of flowable materials resulting from releases from other works, during the progress of those stormwater or flood flows or those releases; and does not store any significant volume of water or flowable substances at any other times.
Low consequence dam	Any dam that is not a high or significant consequence category as assessed using the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)*
Mandatory reporting level	A warning and reporting level determined in accordance with the criteria in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)* published by the administering authority.
Manual	The *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)* published by the administering authority.
Modification or modifying	See definition of 'construction'.
Operational plan	Includes: a) normal operating procedures and rules (including clear documentation and definition of process inputs in the DSA allowance);

	b) contingency and emergency action plans including operating procedures designed to avoid and/or minimise environmental impacts including threats to human life resulting from any overtopping or loss of structural integrity of the regulated structure.
Register of regulated dams	Includes: a) date of entry in the register; b) name of the dam, its purpose and intended/actual contents; c) the consequence category of the dam as assessed using the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)*; d) dates, names, and reference for the design plan plus dates, names, and reference numbers of all document(s) lodged as part of a design plan for the dam; e) name and qualifications of the suitably qualified and experienced person who certified the design plan and 'as constructed' drawings; f) for the regulated dam, other than in relation to any levees — i. The dimensions (metres) and surface area (hectares) of the dam measured at the footprint of the dam; ii. Coordinates (latitude and longitude in GDA94) within five metres at any point from the outside of the dam including its storage area iii. Dam crest volume (megalitres); iv. Spillway crest level (metres AHD). v. Maximum operating level (metres AHD); vi. Storage rating table of stored volume versus level (metres AHD); vii. Design storage allowance (megalitres) and associated level of the dam (metres AHD); viii. Mandatory reporting level (metres AHD); g) the design plan title and reference relevant to the dam; h) the date construction was certified as compliant with the design plan; i) the name and details of the suitably qualified and experienced person who certified that the constructed dam was compliant with the design plan; j) details of the composition and construction of any liner; k) the system for the detection of any leakage through the floor and sides of the dam; g) dates when the regulated dam underwent an annual inspection for structural and operational adequacy, and to ascertain the available storage volume for 1 November of any year; h) dates when recommendations and actions arising from the annual inspection were provided to the administering authority; i) dam water quality as obtained from any monitoring required under this authority as at 1 November of each year.
Regulated dam	Any dam in the significant or high consequence category as assessed using the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)* published by the administering authority.

Regulated structure	Includes land-based containment structures, levees, bunds and voids, but not a tank or container designed and constructed to an Australian Standard that deals with strength and structural integrity.
Structure	Dam or levee.
Spillway	A weir, channel, conduit, tunnel, gate or other structure designed to permit discharges form the dam, normally under flood conditions or in anticipation of flood conditions.
Suitably qualified and experienced person	In relation to regulated structures means a person who is a Registered Professional Engineer of Queensland (RPEQ) under the provisions of the *Professional Engineers Act 2002,* and has demonstrated competency and relevant experience: • for regulated dams, an RPEQ who is a civil engineer with the required qualifications in dam safety and dam design. • for regulated levees, an RPEQ who is a civil engineer with the required qualifications in the design of flood protection embankments. Note: It is permissible that a suitably qualified and experienced person obtain subsidiary certification from an RPEQ who has demonstrated competence and relevant experience in either geomechanics, hydraulic design or engineering hydrology.
System design plan	A plan that manages an integrated containment system that shares the required DSA and/or ESS volume across the integrated containment system.
Void	Any constructed, open excavation in the ground.
Watercourse	Has the meaning in Schedule 4 of the Environmental Protection Act 1994 and means a river, creek or stream in which water flows permanently or intermittently— a) in a natural channel, whether artificially improved or not; or b) in an artificial channel that has changed the course of the watercourse. Watercourse includes the bed and banks and any other element of a river, creek or stream confining or containing water.
Waters	Includes all or any part of a river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, unconfined water in natural or artificial watercourses, bed and banks of a watercourse, dams, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off, and groundwater.
Water year	The 12-month period from 1 July to 30 June.
Wet season	The time of year, covering one or more months, when most of the average annual rainfall in a region occurs. For the purposes of DSA determination this time of year is deemed to extend from 1 November in one year to 31 May in the following year inclusive.

Schedules

Schedule 1 - Approved plans

Schedule 2 - Monitoring

Schedule 3 - Release limits

Schedule 4 - Environmentally Relevant Activity 33, Screening location

Schedule 1—Approved plans

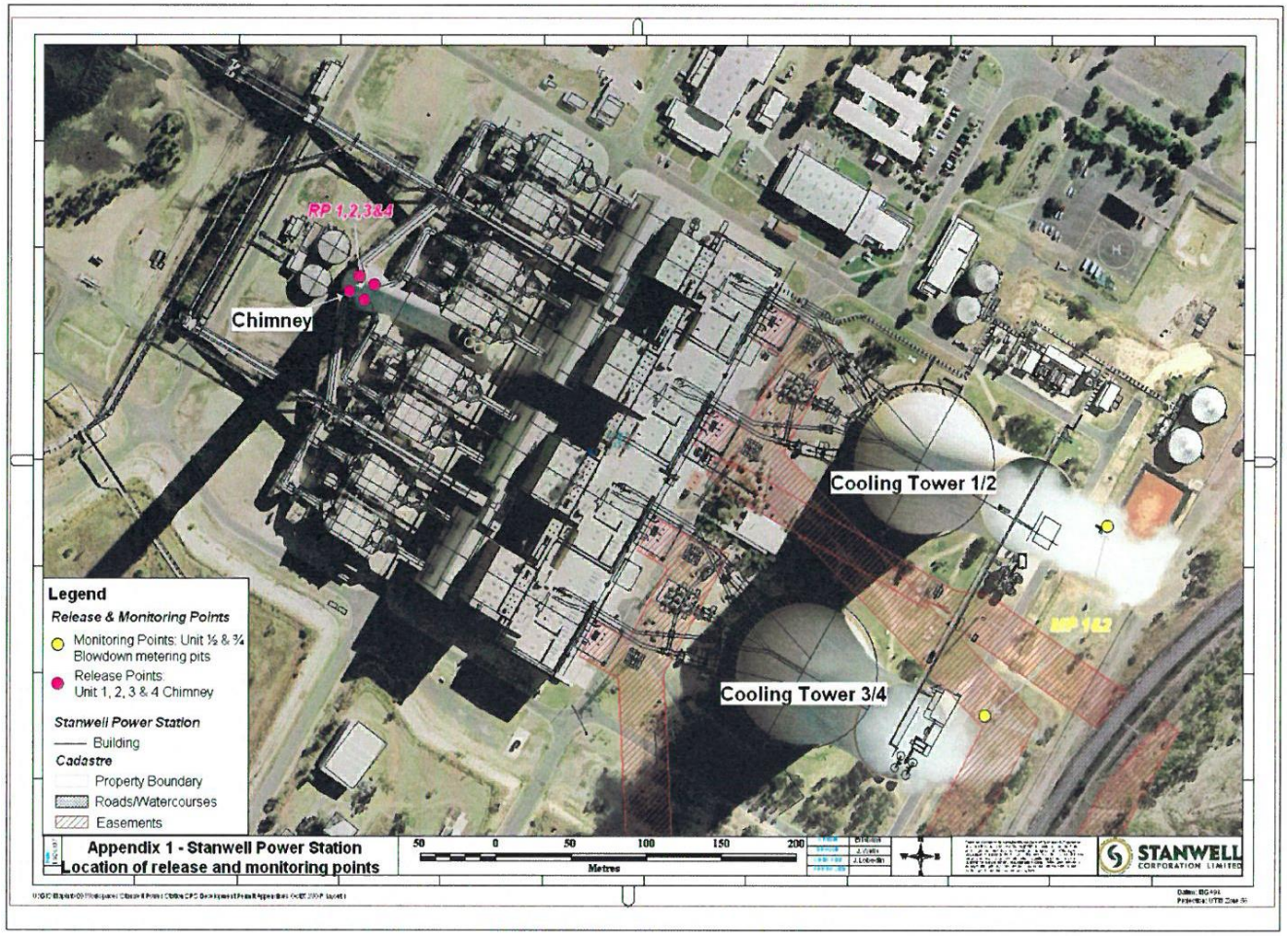

Figure 1 — Release Points 1, 2, 3 and 4 (RP1, RP2, RP3, RP4), and Monitoring Points 1 and 2 (MP1 and MP2)

Figure 2 - Location of monitoring points 1, 2, 3, 5, 7 and 8 (MP1, MP2, MP3, MP5, MP7 and MP8)

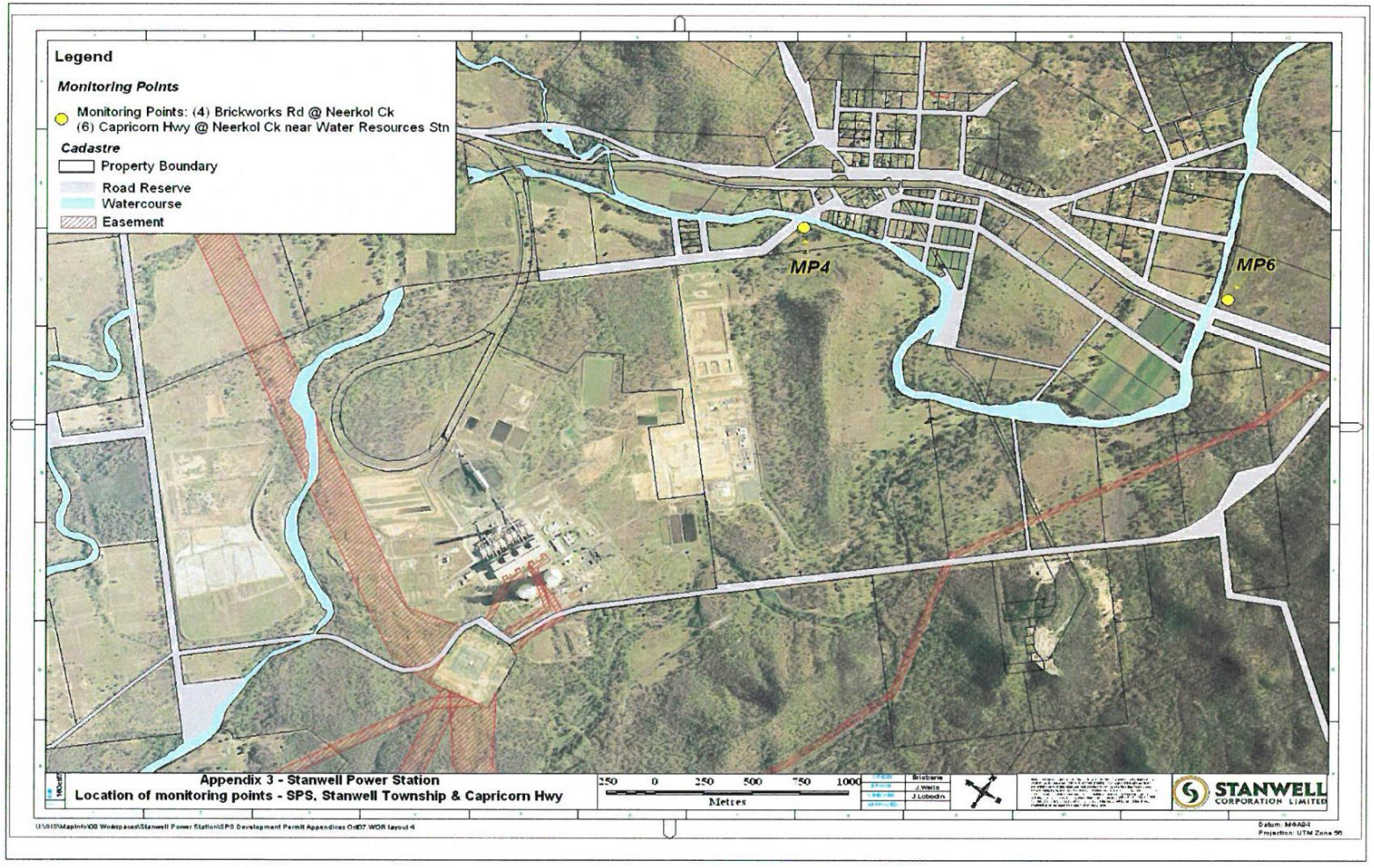

Figure 3 – Location of Monitoring Points 4 and 6 (MP4 and MP6)

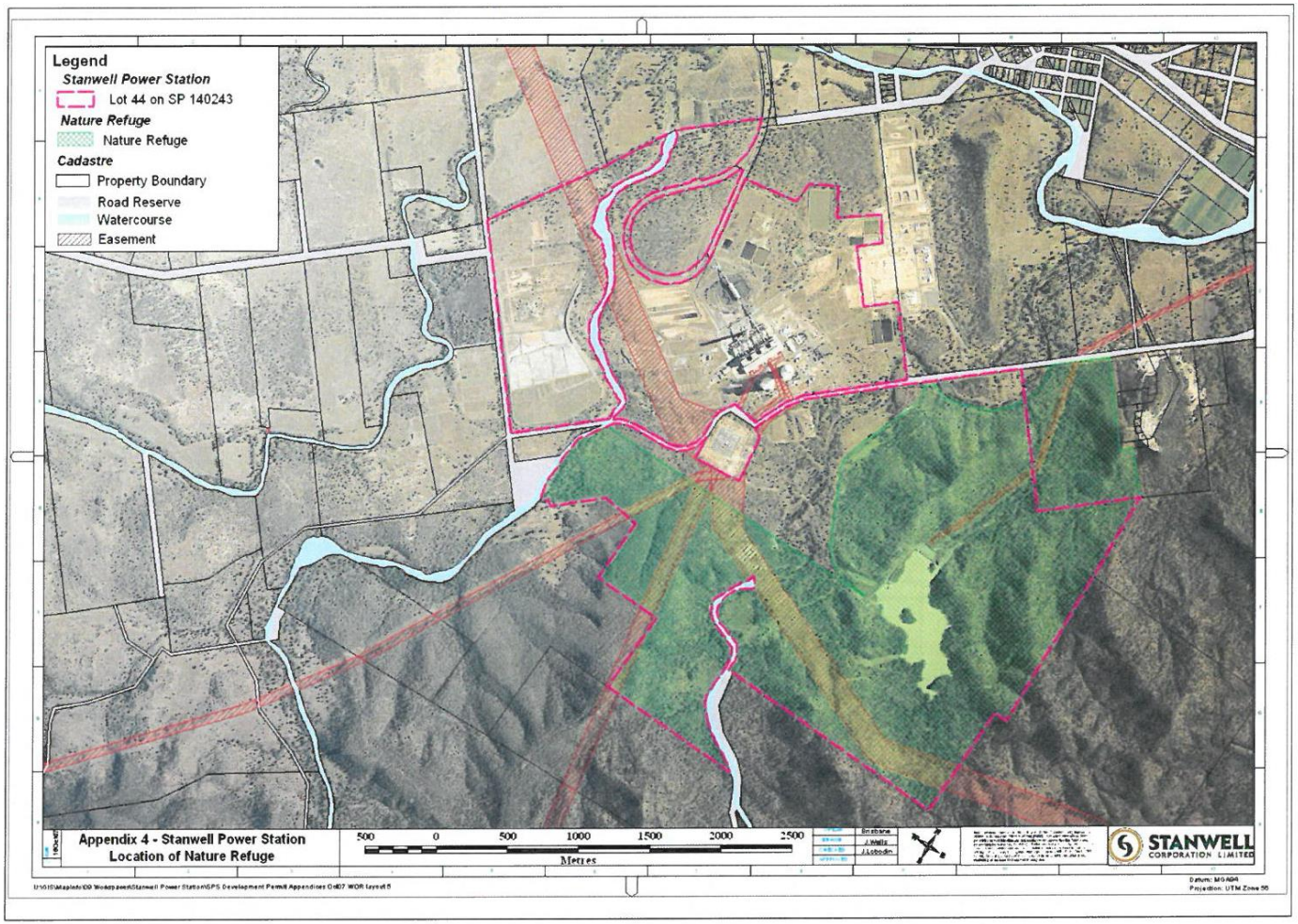

Figure 4 – Location of Nature Refuge

Schedule 2—Monitoring

Table 1
Release Point Description

Release Point (RP) Number	Source Description	Minimum Release Height (metres)
RP1 RP2 RP3 RP4	Unit 1 Chimney Unit 2 Chimney Unit 3 Chimney Unit 4 Chimney	210 m above ground level

Note: Refer to Schedule 1 — Figure 1 for location of the release points

Table 2
Required Release Point Determinations

Release Point Numbers	Determination	Frequency
RP1, RP2, RP3, RP4	Particulates	**Continuous monitoring**
RP1, RP2, RP3, RP4	Nitrogen Oxides	**Continuous monitoring**

Table 3
Release Points and Reporting Requirements for Waters Discharged

Characteristic	Release Point	Unit	Monitoring Method
Volume of waters released	MP1, MP2 & MP5	Cubic metres per **day** (cumecs)	**Continuous monitoring**

Note: Refer to Schedule 1 — Figure 2 for location of monitoring points.

Table 4
Water Quality Monitoring Locations and Monitoring Frequency

Characteristic	Monitoring Point	Monitoring Frequency
Suspended Solids	MP3 & MP5	**Weekly**
	MP4 & MP6	**Monthly**
pH[1]	MP5	**Weekly**
	MP4 & MP6	**Monthly**
Total Dissolved Salts (calculated)	MP5	**Weekly**
	MP4 & MP6	**Monthly**
Dissolved Oxygen[1]	MP5	**Weekly**
	MP4 & MP6	**Monthly**
Total Chloride	MP5	**Weekly**
	MP4 & MP6	**Monthly**
Temperature	MP5	**Weekly**
	MP4 & MP6	**Monthly**
Total Residual Oxidant (as Cl)	MP5 & MP8[2]	**Weekly**

Note: [1] Quality characteristic monitored *in situ.*
[2] Monitoring to be conducted at MP8 when Condition C8 is applicable.
Note: Refer to Figure 2 in Schedule 1 for location of monitoring points.

Schedule 3—Release limits

Table 1
Release Point Maximum Permitted Concentration of Contaminant Release Limits

Release Point Number	Contaminant	Release Limit	Release Limit Units
RP1 RP2 RP3 RP4	Particulates	**4-hour moving average** shall not exceed 0.080 g/**Nm^3** for 90% of the values during any **week** **4-hour moving average** shall not exceed 0.230 g/**Nm^3**	g/**Nm^3** of effluent gas at 0˚C and 101.32 kPa corrected to 12% by volume CO_2
RP1 RP2 RP3 RP4	Nitrogen Oxides	**4-hour moving average** shall not exceed 1.3 gNO_2/**Nm^3**	gNO_2/**Nm^3** of effluent gas at 0˚C and 101.32 kPa corrected to 7% by volume O_2

Table 2
Release Quality Characteristic Limits

Quality characteristics	Release/Monitoring Point Number	Discharge limit	Limit type
Suspended Solids (mg/l)	MP5	100 mg/L, except when the Suspended Solids level at Monitoring Point 3 (MP3) exceeds 100 mg/L	**maximum**
pH (pH Units)[1]	MP5	6.5	**minimum**
pH (pH Units)[1]	MP5	9.6	**maximum**
Total Dissolved Salts (calculated) (mg/l)	MP5	1450 mg/L	**maximum**
Dissolved Oxygen (mg/l)[1]	MP5	2 mg/L	**minimum**
Total Residual Oxidant (as Cl) (mg/l)[2]	MP5 & MP8	0.05 mg/L	**maximum**
Total Chloride (mg/l)	MP5	400 mg/L	**maximum**
Suspended Solids	MP4 & MP6	-	-
pH[1]	MP4 & MP6	-	-
Total Dissolved Salts (calculated)	MP4 & MP6	-	-
Dissolved Oxygen[1]	MP4 & MP6	-	-
Total Chloride	MP4 & MP6	-	-
Temperature	MP4 & MP6	-	-

Note: [1] Quality characteristic monitored in situ.
[2] Monitoring of Total Residual Oxidant at MP8 is only required when Condition C8 is applicable.
Note: Refer to Figure 2 in Schedule 1 for location of monitoring points.

Table 3

Temporary release limits during a direction by AEMO

Emission or release	Release limit	Release point(s)	Duration of release limit
Air			
Particulate emissions	**4-hour moving average** shall not exceed 0.350 g/**Nm^3** for 90% of the values during any **week**	RP1, RP2, RP3, RP4	For the duration of a direction by AEMO plus the 5-hour period immediately following the end of a direction.
	4-hour moving average shall not exceed 0.690 g/**Nm^3**	RP1, RP2, RP3, RP4	For the duration of a direction by AEMO plus the 5-hour period immediately following the end of a direction.
Nitrogen Oxides	**4-hour moving average** shall not exceed 2 gNO_2/**Nm^3**	RP1, RP2, RP3, RP4	For the duration of a direction by AEMO plus the 5-hour period immediately following the end of a direction.
Water			
Release of process waters	40,000 cubic metres per day	Combined release from MP1 and MP2	For the duration of the day in which a direction by AEMO is given.

Schedule 4 - Environmentally Relevant Activity 33, Screening location

END OF PERMIT