

Permit

Environmental Protection Act 1994

Environmental authority EPPG00787513

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

Environmental authority number: EPPG00787513**Environmental authority takes effect on 27 July 2018****Environmental authority holder(s)**

Name(s)	Registered address
AUSTRALIA PACIFIC LNG PTY LIMITED	Level 4 139 Coronation Drive MILTON QLD 4064 Australia
ORIENT (DENISON TROUGH) PTY LTD	Suite 604, Tower B, The Zenith 821 Pacific Highway CHATSWOOD NSW 2067

Environmentally relevant activity and location details

Environmentally relevant activity/activities	Location(s)
Resource Activity, Schedule 2A, 08: A petroleum or GHG storage activity, other than items 1 to 7, that includes an activity from Schedule 2 with an AES	PL45
Resource Activity, Schedule 2A, 08: A petroleum or GHG storage activity, other than items 1 to 7, that includes an activity from Schedule 2 with an AES	PL44
Resource Activity, Schedule 2A, 08: A petroleum or GHG storage activity, other than items 1 to 7, that includes an activity from Schedule 2 with an AES	PL43
Resource Activity, Schedule 2A, 08: A petroleum or GHG storage activity, other than items 1 to 7, that includes an activity from Schedule 2 with an AES	PL218
Resource Activity, Schedule 2A, 03: A petroleum activity that is likely to have a significant impact on a category A or B environmentally sensitive area	PL45
Resource Activity, Schedule 2A, 03: A petroleum activity that is likely to have a significant impact on a category A or B environmentally sensitive area	PL44
Resource Activity, Schedule 2A, 03: A petroleum activity that is likely to have a significant impact on a category A or B environmentally sensitive area	PL43
Resource Activity, Schedule 2A, 03: A petroleum activity that is likely to have a significant impact on a category A or B environmentally sensitive area	PL218

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Environmentally relevant activity/activities	Location(s)
Resource Activity, Schedule 2A, 06: A petroleum activity carried out on a site containing a high hazard dam or a significant hazard dam	PL45
Resource Activity, Schedule 2A, 06: A petroleum activity carried out on a site containing a high hazard dam or a significant hazard dam	PL44
Resource Activity, Schedule 2A, 06: A petroleum activity carried out on a site containing a high hazard dam or a significant hazard dam	PL43
Resource Activity, Schedule 2A, 06: A petroleum activity carried out on a site containing a high hazard dam or a significant hazard dam	PL218

Additional information for applicantsEnvironmentally relevant activities

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

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.

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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

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Date issued: 27 July 2018



Legislative Requirements and Conditions of Environmental Authority

SCHEDULE A – GENERAL CONDITIONS

- (A1) Emissions that may cause material or serious environmental harm and not specifically authorized by this environmental authority must not be released beyond the boundary of the activity except where they are authorised under this environmental authority.
- (A2) Any record required to be kept by a condition of this environmental authority must be kept at the licensed place and be available for examination by an authorised person.
- (A3) 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.
- (A4) A copy of this environmental authority must be kept in a location readily accessible to personnel carrying out the activity.
- (A5) All complaints received by the holder of this environmental authority relating to operations at the licensed place must be recorded.
- (A6) As soon as practicable after becoming aware of any emergency or incident which results in emissions not in accordance with the conditions of this environmental authority, the holder of this environmental authority must notify the **administering authority** of the release by telephone or facsimile and in writing within 14 days following the initial notification.
- (A7) Where regulated waste is removed from within the boundary of the environmental authority (other than by a release as permitted under another schedule of this environmental authority), the holder of this environmental authority 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
- (A8) The holder of this environmental authority must notify the regulatory authority at the above address, in writing, of any monitoring result which indicates an exceedance of any licence limit, within 28 days of completion of analysis.
- (A9) The holder will comply with the relevant control strategies and standards detailed in the documents titled "Environmental Management Systems — Queensland Production Operations, October 2002" and "Integrated Environmental Management System — Origin Energy Upstream Queensland" to manage environmental impacts caused by the undertaking of the Environmentally Relevant Activity authorised under this environmental authority.

(A10) This environmental authority is granted on the condition that breach of the terms of this environmental authority in respect of one Environmentally Relevant Activity at a location will not affect this environmental authority in relation to any other Environmentally Relevant Activity at the same or any other location.

(General 19)

Measures to prevent fauna being harmed from entrapment must be implemented during the construction and operation of well infrastructure, dams and pipeline trenches.

SCHEDULE B – AIR

(B1) The release of any dust, particulate, aerosol or odour resulting from the petroleum activity(ies) must not cause an environmental nuisance at any **sensitive place**.

SCHEDULE C – WATER

(C1) Water emissions that may cause material or serious environmental harm must not be released directly or indirectly from the boundary of this activity to any **waters** or the bed and banks of any **waters** or into the general environment beyond the boundary of this activity except as permitted under this Schedule.

(C2) Water emissions must not be released directly or indirectly from locations on the boundary of this activity other than at locations listed in the following –

Release Point W2 (PL30 Riverslea) - Water emission at the overflow from the last evaporation pond at the Riverslea Production Facility.

(C3) Water discharge from the release point number W2 may only occur in times of flood rains corresponding with a local AEP 5% 24 hour rainfall event.

(C4) The water emissions must comply, at the sampling and in-situ measurement point/s specified in this Schedule, with each of the limits specified in Table 1 of this Schedule for each qualify characteristic.

Schedule C, Table 1 – Release Quality Characteristics

Quality Characteristic	Release Point Number	Release Limit	Limit Type	Frequency
pH (pH units)	All	6.5 – 9.0	Range	Quarterly
Total Alkalinity (as CaCO ₃) (mg/L)	All	3500	Maximum	Quarterly
Dissolved Solids (mg/L)	All	4000	Maximum	Quarterly
Total Petroleum Hydrocarbons (mg/L)	All	10 or no visible film	Maximum	Quarterly
Phenolic Compounds	All	0.05	Maximum	Bi-annually
Dissolved Fluoride (as F) (m g/L)	All	2	Maximum	Quarterly

- (C5) Notwithstanding the quality characteristic limits specified in Table 1 of this Schedule, the release of water emissions to waters must not produce any slick or other visible evidence of oil or grease, nor contain visible floating oil, grease, scum, litter or other objectionable matter.

For other quality characteristics not listed in Table 1, the water emissions shall not have any properties nor contain any matter or organism in concentrations which, in the opinion of the **administering authority**, are likely to make the receiving environment less fit for other water uses when account is taken of any effective dilution and quality of the water.

- (C5) All determinations of the quality of water emissions to waters must be made in accordance with methods prescribed in the Environmental Protection Agency *Water Quality Sampling Manual*, current edition. Soil sampling must be in accordance with the *Guidelines for the Assessment of Contaminated Land in Queensland*, Environmental Protection Agency (current edition). Soil sampling must be in accordance with the Draft Guidelines for the Assessment of Contaminated Land in Queensland, Department of Environment, May 1998 or more recent editions.
- (C6) All determinations of the quality of water emissions or receiving environment must be made by a person or body registered by the National Association of Testing Authorities (NATA) for the required determinations.

Erosion Protection Measures and Sediment Controls

- (C7) Erosion protection measures and sediment control measures must be implemented and maintained to minimise erosion and the release of sediment from all disturbed areas.
- (C8) Prevent any build up of sediment in a stormwater drain.

Stormwater Management Measures

- (C9) The holder must implement and maintain measures to minimise the likelihood of release of contaminated stormwater from the place where the activities are carried out to any stormwater drain or **waters**.
- (C10) The maintenance and cleaning of vehicles and any other equipment or plant must be carried out in areas where the resultant **contaminants** are unlikely to be released into any **waters**, roadside gutter or stormwater drainage system.
- (C12) Any spillage of wastes, or **contaminants** that may cause environmental harm, must be effectively contained and/or cleaned up as quickly as practicable. Such spillage must not be cleaned up by hosing, or otherwise releasing such waste or contaminants to any stormwater drainage system, roadside gutter or waters.

SCHEDULE D – NOISE AND VIBRATION

Noise Nuisance

- (D1) Noise from the activities must not cause an environmental nuisance at any **noise sensitive place**.
- (D2) The method of measurement and reporting of noise levels must comply with the latest edition of the Department of Environment and Science's Noise Measurement Manual.

SCHEDULE E – WASTE

Waste Handling

- (E1) Any loss or spillage of regulated wastes must be cleaned up forthwith.
- (E2) Regulated waste must be handled and transferred in a proper and efficient manner to prevent any leakage or spillage of waste.
- (E3) All regulated waste removed from the site must be removed by a person who holds a current authority to transport such waste under the provisions of the *Environmental Protection Act 1994* and sent to a facility licensed to accept such waste.
- (E4) Except as otherwise provided by the conditions of this environmental authority, all disposal of waste generated in carrying out the Environmentally Relevant Activity must be to a proper and appropriate facility that accepts that waste.

SCHEDULE F – LAND

Preventing Contaminant Release to Land

(F1) **Contaminants** must not be released to land.

Top Soil Management

(Land 2)

Top soil must be managed in a manner that preserves its biological and chemical properties.

Confirming biodiversity values

(Biodiversity 1)

Prior to conducting activities that result in significant disturbance to land in areas of native vegetation, confirmation of on-the-ground **biodiversity values** of the native vegetation communities at that location must be undertaken by a suitably qualified person.

(Biodiversity 2)

A suitably qualified person must develop and certify a methodology so that condition (Biodiversity 1) can be complied with and which is appropriate to confirm on-the-ground biodiversity values.

(Biodiversity 3)

For condition (Biodiversity 4), where mapped biodiversity values differ from those confirmed under conditions (Biodiversity 1) and (Biodiversity 2), petroleum activities may proceed in accordance with the conditions of the environmental authority based on the confirmed on-the-ground biodiversity value.

Planning for land disturbance

(Biodiversity 4)

The location of the petroleum activity(ies) must be selected in accordance with the following site planning principles:

- (a) maximise the use of areas of pre-existing disturbance
- (b) in order of preference, avoid, minimise or mitigate any impacts, including cumulative impacts, on areas of native vegetation or other areas of ecological value
- (c) minimise disturbance to land that may result in land degradation
- (d) in order of preference, avoid then minimise isolation, fragmentation, edge effects or dissection of tracts of native vegetation; and
- (e) in order of preference, avoid then minimise clearing of native mature trees.

Impacts to prescribed environmental matters

(Biodiversity 10)

From 17 May 2018, **significant residual impacts to prescribed environmental matters** other than if the impacts were authorised by an existing authority, are not authorised by this environmental authority or the *Environmental Offsets Act 2014*.

(Biodiversity 11)

From 17 May 2018, records demonstrating that each impact to a prescribed environmental matter did not, or is not likely to, result in a significant residual impact to that matter must be:

- (a) Completed by an **appropriately qualified person**; and
- (b) Kept for the life of the environmental authority.

Disturbance to Land – Environmentally Sensitive Areas

(F2) Petroleum activities must be carried out in accordance with Schedule F: Table 1 – Authorised Petroleum Activity(ies) Disturbance.

Schedule F: Table 1 – Authorised Petroleum Activity(ies) Disturbance

Tenure	Description of Infrastructure	Number	Size of disturbance in ESA (ha)	Location
PL44	Westgrove 9 well lease	1	3	Lot 88 on Plan FTY1706 Category C ESAs that are State Forests and RE 11.10.9 (100) 'No Concern at Present' Biodiversity Status
PL44	Stockpile (SP) 01 SP02 SP04	3	0.06 0.13 0.18	Lot 88 on Plan FTY1706 Category C ESAs that are State Forests and RE 11.10.9 (100) 'No Concern at Present' Biodiversity Status
PL44	SP03	1	03.21	Lot 88 on Plan FTY1706 Category C ESA that is State Forest
PL44	Extra Work Spaces (EWS) 01	2	0.026	Lot 88 on Plan FTY1706 Category C ESA that is State Forest
PL44	EWS Tie In	1	0.05 0.124	Lot 88 on Plan FTY1706 Category C ESAs that are State Forests and RE 11.10.9 (100) 'No Concern at Present' Biodiversity Status Category C ESA that is State Forest
PL44	EWS02	1	0.198	Lot 88 on Plan FTY1706 Category C ESAs that are State Forests; and RE 11.3.2 (100); and RE 11.3.25 (100) Category C ESAs that are 'Of Concern' Regional Ecosystems.
PL44	EWS04	1	0.018	Lot 88 on Plan FTY1706 Category C ESAs that are State Forests; and RE 11.3.2 (100) Category C ESA that is 'Of Concern' Regional Ecosystem.

Tenure	Description of Infrastructure	Number	Size of disturbance in ESA (ha)	Location
PL44	Westgrove 9 access track	1	1.39	Lot 88 on Plan FTY1706 Category C ESAs that are State Forests; and RE 11.10.9 (100) 'No Concern at Present' Biodiversity Status
PL44	Westgrove 9 access track	1	1.94	Lot 88 on Plan FTY1706 Category C ESAs that are State Forests; and RE 11.3.2 (100); and RE 11.3.25 (100) Category C ESAs that are 'Of Concern' Regional Ecosystems.

Pond Conditions

(F3) The evaporation ponds used for the storage of **contaminants** must be constructed, installed and maintained:

- a) to prevent any release of **contaminants** through the bed or banks of the pond to any **waters** (including ground water);
- b) so that an acceptable freeboard is maintained at all times; and
- c) to ensure the stability of the ponds' construction.

(F4) Suitable banks and/or diversion drains must be installed and maintained to exclude stormwater runoff from entering the evaporation pond or other structures used for the storage or treatment of **contaminants** or wastes.

(F5) Investigation and testing of sites is to be undertaken to determine if the soils are contaminated.

(F6) Any contaminated soil must be managed in accordance with the procedures and processes set out in the EPA's *Draft Guidelines for the Assessment and Management of Contaminated Land May 1999*.

Land Rehabilitation

(F7) Rehabilitation of disturbed areas must take place progressively as works are staged and new areas are disturbed.

SCHEDULE G – WELL CONSTRUCTION AND MAINTENANCE

Drilling Activities

(Well activities 1)

Oil based or synthetic based drilling muds must not be used in the carrying out of the petroleum activity(ies).

(Well activities 2)

Drilling activities must not result in the connection of the target gas producing formation and another aquifer.

(Well activities 3)

Practices and procedures must be in place to detect, as soon as practicable, any fractures that have or may result in the connection of a target formation and another aquifer as a result of drilling activities.

(Well activities 4)

Stimulation activities are not permitted.

SCHEDULE H – COMMUNITY

Complaint Response

(H1) All complaints received must be recorded including investigations undertaken, conclusions formed and action taken. This information must be made available to the **administering authority** on request.

SCHEDULE I – DEFINITIONS

"**administering authority**" has the meaning in Schedule 4 of the *Environmental Protection Act 1994*

"**alternative arrangement**" means a written agreement between the holder of the environmental authority and an affected, or potentially affected, person at a sensitive receptor for a defined noise nuisance impact and may include an agreed period of time for which the arrangement is in place. An agreement for alternative arrangement may include, but not necessarily be limited to, a range of noise abatement measures to be installed at a sensitive receptor and/or provision of alternative accommodation for the duration of the defined noise nuisance impact. Alternative arrangements for drilling activities must be in writing and state: i.e. the location of the drilling activities, ii. The location of the sensitive receiver, iii. The names of the affected persons, iv. The nature of the alternative arrangement(s) (e.g. provision of alternative accommodation, attenuation of noise at the sensitive place, a benefit to offset the impact of drilling noise, acquisition of the sensitive place) and v. the period of the alternative arrangement(s).

"**annual return**" means the return required by the annual notice (under section 308 of the *Environment Protection Act 1994*)

"**appropriately qualified person**" means a person who has professional qualifications, training or skills or experience relevant to the nominated subject matters and can give authoritative assessment, advice and analysis about performance relevant to the subject matters using relevant protocols, standards, methods or literature.

"**authorised place**" means the place authorized under this authority for the carrying out of the specified environmentally relevant activities.

"**authority**" means level 1 licence (without development approval), or level 1 approval (without development approval), or level 2 approval (without development approval) under the *Environment Protection Act 1994*

"**Areas of pre-existing disturbance**" means areas where environmental values have been negatively impacted as a result of anthropogenic activity and these impacts are still evident. Areas of pre-disturbance may include areas where legal clearing, logging, timber harvesting, or grazing activities have previously occurred, where high densities of weed or pest species are present which have inhibited re-colonisation of native regrowth, or where there is existing infrastructure (regardless of whether the infrastructure is associated with the authorised petroleum activities). The term 'areas of pre-disturbance' does not include areas that have been impacted by wildfire(s), controlled burning, flood or natural vegetation die-back.

"**biodiversity values**" for the purposes of this environmental authority, means environmentally sensitive areas, prescribed environmental matters and wetlands.

“Category C Environmentally Sensitive Area” means any of the following areas:

- Nature Refuges as defined in the under the *Nature Conservation Act 1992*;
- Koala Habitat Areas as defined under the *Nature Conservation (Koala) Conservation Plan 2006*;
- State Forests or Timber Reserves as defined under the *Forestry Act 1959*;
- Regional parks (previously known as resource reserves) under the *Nature Conservation Act 1992*;
- an area validated as “Essential Habitat” from ground-truthing surveys in accordance with the *Vegetation Management Act 1999* for a species of wildlife listed as endangered or vulnerable under the *Nature Conservation Act 1992*; or
- ‘Of Concern Regional Ecosystems’ that are remnant vegetation and identified in the database called ‘RE description database’ containing Regional Ecosystem numbers and descriptions.

“clearing” has the meaning in the dictionary of the *Vegetation Management Act 2000* and for vegetation –

- (a) Means remove, cut down, ringbark, push over, poison or destroy in any way including by burning, flooding or draining, but
- (b) Does not include destroying standing vegetation by stock, or lopping a tree.

"contaminant" can be —

- (c) a gas, liquid or solid;
- (d) an odour;
- (e) an organism (whether alive or dead), including a virus;
- (f) energy, including noise, heat, radioactivity and electromagnetic radiation; or
- (g) a combination of contaminants.

"contaminated land" means land contaminated by a hazardous contaminant.

“dust sensitive place” means:

A dwelling, mobile home or caravan park, residential marina or other residential place;

A motel, hotel or hostel;

A kindergarten, school, university or other educational institution;

A medical centre or hospital;

A protected area

A park or gardens

A place used as an office or for business or commercial purposes, and includes the curtilage of such place.

“dwelling” means any of the following structures or vehicles that is principally used as a residence:

- a house, unit, motel, nursing home or other building or part of a building;
- a caravan, mobile home or other vehicle or structure on land; or
- a water craft in a marina.

“existing authority” has the meaning in section 94 of the *Environmental Offsets Act 2014*.

“land” in Schedule F of this authority means land excluding waters and the atmosphere,

“land degradation” has the meaning in the Vegetation Management Act 1999 and means the following:

- soil erosion
- rising water tables
- the expression of salinity
- mass movement by gravity of soil or rock
- stream bank instability
- a process that results in declining water quality

“noise sensitive place” means:

- A dwelling, mobile home or caravan park, residential marina or other residential place;
- A motel, hotel or hostel;
- A kindergarten, school, university or other educational institution;
- A medical centre or hospital;
- A protected area
- A park or gardens
- A place used as an office or for business or commercial purposes, and includes the curtilage of such place.

“noxious” means harmful or injurious to health or physical well being.

“nuisance sensitive place” includes:

- A dwelling, mobile home or caravan park, residential marina or other residential place;
- A motel, hotel or hostel;
- A kindergarten, school, university or other educational institution;
- A medical centre or hospital;
- A protected area
- A park or gardens
- A place used as an office or for business or commercial purposes, and includes the curtilage of such place.

“odour sensitive place” has the same meaning as a “dust sensitive place”.

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

“prescribed environmental matters” has the meaning in section 10 of the *Environmental Offsets Act 2014*, limited to the matters of State environmental significant listed in schedule 2 of the Environmental Offsets Regulation 2014.

“regulated waste” means non-domestic waste mentioned in Schedule 7 of the Environmental Protection Regulation 1998 (whether or not it has been treated or immobilized), and includes; for an element – any chemical compound containing the element; and anything that has contained the waste.

“significantly disturbed or significant disturbance or significant disturbance to land” means disturbance to land as defined in Schedule 12, section 4 of *the Environmental Protection Regulation 2008*

“**significant residual impact**” has the meaning in section 8 *Environmental Offsets Act 2014*.

“**site**” means the place to which this authority relates.

“**top soil**” means the surface (top) layer of a soil profile, which is more fertile, darker in colour, better structured and supports greater biological activity than underlying layers. The surface layer may vary in depth depending on soil forming factors, including parent material, location and slope, but generally is not greater than about 300mm in depth from the natural surface.

“**waters**” includes river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, unconfined water in natural or artificial watercourses, 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.

END OF ENVIRONMENTAL AUTHORITY

