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ENVIRONMENTAL PROTECTION ACT 1994

Queensland Government
Environmental Protection Agency
Department of Natural Resources and Mines

Environmental Protection Agency
Southern Regional Office (Brisbane)
GPO Box 2771 BRISBANE QLD 4001

Non-code Compliant Environmental Authority (petroleum activities) No. 150 343

Sections 96 *Environmental Protection Act 1994*

This environmental authority is granted under the Environmental Protection Act 1994 *and includes conditions to minimise environmental harm caused, or likely to be caused, by the authorised petroleum activities. An environmental authority (petroleum activities) may be for petroleum activities authorised (under the Petroleum and Gas (Production and Safety) Act 2004, Petroleum Act 1923 or Petroleum (Submerged Lands) Act 1982) to occur under one of the following petroleum authorities: authority to prospect; petroleum lease, data acquisition authority, water monitoring authority, petroleum facility licence, survey licence or pipeline licence. In general, a petroleum activity means an activity that, under the relevant petroleum legislation, is an authorised activity, rehabilitation, remediation, and includes facilitation and supporting activities and any action taken to prevent environmental harm.*

Under the provisions of the *Environmental Protection Act 1994*, this environmental authority (approval) is issued to:

Santos Limited
Level 29, Santos House
91 King William Street
Adelaide SA 5001

in respect of carrying out the following level 2 environmentally relevant activity(ies) (ERAs) of Schedule 1 of the *Environmental Protection Regulation 1998*:

21E	**A petroleum activity not otherwise prescribed under Schedule 1 of the *Environmental Protection Regulations 1998* as a Level 1 environmentally relevant activity**

on the relevant petroleum tenement identified below:

PPL109	**Gimboola – Mulberry – Tarbat Pipeline**

This environmental authority is subject to the condition that the holder carry out the above environmentally relevant activity(ies) in accordance with the Schedule of Standard Environmental Conditions.

This environmental authority takes effect from **date of grant of tenement** and remains in force until the environmental authority is transferred, surrendered, cancelled or suspended.

Signed

26.05.05
Date

Mr Les Bevis
Director Environment (Southern Region)
Delegate of Administering Authority
Environmental Protection Act 1994

Note: This environmental authority document is not proof of the current status of the environmental authority. The current status of the environmental authority may be ascertained by contacting the Administering Authority.

Schedule of Standard Environmental Conditions

Standard Environmental Conditions	Advisory Notes
Condition 1 Significant disturbance The holder of the environmental authority must ensure significant disturbance on pipeline land caused by petroleum activities must be within the following limits: • Class R1 ➢ 100km in one year ➢ 20km at any one time • Class R2 ➢ 50km in one year ➢ 10km at any one time • Classes T1 & T2 ➢ 10km in one year ➢ 2km at any one time	
Condition 2 Plan of Activities The holder of the environmental authority must submit to the administering authority a **Plan of Activities,** before commencing petroleum activity(ies) likely to cause **significant disturbance** to land subject to a pipeline licence.	**Note 1.0** The content of the **Plan of Activities** must be the same as the **Application Details** required under section 409 (c) of the P&G Act.
Condition 3 – Environmentally sensitive areas The holder of the environmental authority must ensure that petroleum activities: • are not conducted in a category A or B **environmentally sensitive area;** • do not cause a **significant disturbance** within 1km of a category A environmentally sensitive area or within 500m of a category B environmentally sensitive area; and • are not conducted in a category C environmentally sensitive area unless there is a written agreement to enter the area from the relevant administering authority.	**Note 2.0** **Appendix A** contains a list of all environmentally sensitive areas, and the relevant administering authorities. **Note 3.0** Petroleum activities are prohibited in certain Category A and B environmentally sensitive areas by legislation. **Note 3.1** Ensure all staff, contractors and agents are aware of the location of any category A and B environmentally sensitive areas. **Note 3.2** Obtain a written agreement from the relevant administering authority prior to carrying out activities in a category C environmentally sensitive area.

	If the administering authority is the EPA, seek advice from the Queensland Parks and Wildlife Service. **Note 3.3** If activities are likely to trigger a matter of national environmental significance under the Commonwealth EPBC Act, the environmental authority holder is advised to refer the proposed activities to Environment Australia.
Condition 4 – Land Management The holder of the environmental authority must • take all reasonable and practicable measures to minimise disturbance to land caused by petroleum activities, and • ensure that for land that is to be significantly disturbed by petroleum activities, the **top layer** of the soil profile is removed and o stockpiled in a manner that will preserve its biological and chemical integrity; and o used for rehabilitation purposes (refer condition 14).	**Note 4.0** Complying with this condition will provide rehabilitation processes with a greater chance of success. For example, if the top layer of soil profile is not stockpiled and maintained there is little chance that the environmental authority holder will be able to comply with the condition to respread the top layer of soil profile upon completion of the activities (refer Condition 13). **Note 4.1** Identify the top layer of soil prior to causing the significant disturbance. **Note 4.2** Stockpile the top layer of soil in a manner that will preserve its biological and chemical integrity by: • installing bunding around the stockpile to minimise water erosion, • establishing and maintain a temporary cover crop on the stockpile to minimise wind erosion. • limiting the height of the stockpile to 2 m.
Condition 5 – Vegetation management The holder of the environmental authority must take all reasonable and practicable measures to minimise disturbance of vegetation caused by petroleum activities.	**Note 5.0** Minimise disturbance of vegetation means: • utilise existing roads and tracks wherever practicable. • plan the location of pipelines, access tracks and roads and compressor sites, to avoid disturbing environmentally sensitive areas; large

	and/or mature trees, or species that have limited ability to regenerate • keep vegetation clearance to a minimum and only remove surface seed, rootstock and topsoil where necessary. Where vegetation must be cleared (e.g. trees within 3m of the trench centreline), stockpile the vegetation and/or topsoil in windrows less than 2m high in order to preserve its biological and chemical integrity for use during rehabilitation (see condition 13). • do not to disturb areas of native vegetation outside the access tracks or pipeline corridor. **Note 5.1** Section 555 of the *Petroleum and Gas (Production and Safety) Act 2004* requires the holder of a petroleum authority to prevent the spread of declared pest plants and animals **Note 5.2** The P&G Act authorises clearing of vegetation as an **incidental activity** under a petroleum authority.
Condition 6 – Riverine areas The holder of the environmental authority must: • ensure that there is no ***significant disturbance*** in *riverine areas* containing permanent water, except for the necessary construction and/or maintenance of roads, tracks and pipelines; and • minimise disturbance of all other ***riverine areas***.	**Note 6.0** Plan activities to avoid disturbing riverine areas containing permanent water. **Note 6.1** Minimise disturbances means: • planning pipelines routes and access tracks to cross *riverine areas* where minimal earthworks are required. • using directional drilling techniques for the establishment of pipelines across ***riverine areas*** that support sensitive ecosystems. • avoid impeding the flow of perennial watercourses by establishing piped culverts.
Condition 7 – Erosion and sediment control The holder of the environmental authority must take all reasonable and practicable measures to prevent or minimise • erosion of areas disturbed by petroleum activities; and	**Note 7.0** Erosion and sedimentation for transmission pipelines should be managed in accordance with

• sedimentation of any **watercourse** or **waterway** as a result of petroleum activities.	Part B Section 4.2.1.2 *Soil and Ground Stability* of the **APIA Code**. **Note 7.1** To prevent or minimise erosion or sediment releases: • Plan activities to avoid unnecessary disturbance of erosion prone soils (e.g. sand dunes and gibber plain areas) • Where disturbance of erosion prone soils is necessary use rubber tyred machinery in preference to track-mounted machinery to minimise the disturbance. • In sand dune areas mound sand along dune crests and flanks. • Keep road gradients as low as possible to reduce road surface erosion. • Avoid steep cuts and fills because these may cause landslides, erosion and slump problems. • Back fill erosion gullies and install rock battered drainage channels where erosion cannot be stabilised. • Provide surface drainage as part of road construction to control runoff from the road surface • Carry out slope stabilisation, cross ditching, soil replacement and reseeding to reduce erosion on *significantly disturbed* areas until a self-sustaining vegetation cover is established. • Suspend activities that cause ground disturbance during adverse weather conditions. • Locate and design infrastructure to avoid unstable or steep slopes adjacent to waters. • Install a sediment pond and/or install sediment traps around topsoil stockpiles and areas prone to erosion. • Install erosion control structures where necessary along access tracks and gathering line Right of Ways. **Note 7.2** The performance of erosion and sediment control measures for transmission pipelines should be monitored in a manner consistent with the monitoring and record-keeping summary in Appendix IV of the **APIA Code**.

Condition 8 – Dust

The release of dust and/or particulate matter resulting from petroleum activities must not cause an **environmental nuisance** at a ***sensitive place*** **or** ***commercial place***.

Exceeding any of the following levels when measured at any *sensitive place* or *commercial place* is an environmental nuisance for the purposes of this condition:

(a) Dust deposition of 120 milligrams per square metre per day, averaged over one month, when monitored in accordance with AS 3580.10.1 of 1991; and

(b) A concentration of particulate matter with an aerodynamic diameter of less than 10 micrometre (µm) (PM10) suspended in the atmosphere of 150 micrograms per cubic metre over a 24 hour averaging time, at a sensitive or *commercial place* downwind of land the subject of the environmental authority, when monitored in accordance with:

i) Australian Standard AS 3580.9.6 ' Ambient air – Particulate matter – Determination of suspended particulate PM10 high-volume sampler with size-selective inlet – Gravimetric method'; or

ii) Any alternative method of monitoring PM10, which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority.

Note 8.0

If carrying out earthworks for transmission pipelines appropriate dust emission controls should be applied as necessary based on the procedures detailed in the **APIA Code**.

Note 8.1

If dust problems occur at particular sections of the pipeline corridor, the following measures should be adopted as appropriate:

- revegetate areas significantly disturbed by petroleum activities as soon as practicable using existing species and prevent access until the vegetation is established.
- minimise vehicle movements and ensure speed limits are appropriate and being observed.
- use geotextiles, hessian or mulched vegetation on localised areas.
- if available, spray water on the problem areas.

Condition 9 - Noise

Noise emitted from any aspect of petroleum activities must not exceed the noise levels, specified in the table below, at any ***sensitive place*** **or** ***commercial place.***

Time period	Noise level at a ***sensitive place*** measured as the Adjusted Maximum Sound Pressure Level $L_{A,max\ adjT}$
7am– 6 pm	Background noise level plus 5 dB(A)
6pm– 10pm	Background noise level plus 5 dB(A)
10pm– 7am	Background noise level plus 3 dB(A)
Time period	Noise level at a ***commercial place*** measured as the Adjusted Maximum Sound Pressure Level $L_{A,max\ adjT}$
7am –6 pm	Background noise level plus 10 dB(A)

Note 9.0

Where necessary:

- construct and maintain noise barriers and enclosures around noisy equipment/compressor stations or along the noise transmission path.
- repair or replace defective mufflers on vehicles and plant equipment.
- provide and maintain low noise equipment.
- conduct potentially noisy activities at times least intrusive to any nearby neighbours that may be affected by noise from the activity.
- inform any nearby neighbours of any potentially noisy activities that may be carried out.

Note 9.1

There may be circumstances where exceeding the noise levels cannot be avoided. For example where there is an emergency or where system operational constraints dictate different hours.

6pm–10pm	Background noise level plus 10 dB(A)
10pm–7am	Background noise level plus 8 dB(A)

In such circumstances, to avoid complaints, it is recommended that the authority holder should, where practicable, contact landholders to explain the reason for the noise disturbance.

Condition 10 – Waste Management

The holder of the environmental authority must

- ensure that petroleum activities do not result in the release or likely release of a hazardous contaminant to land or any water course, waterway, ground water, wetland or lake, and
- as soon as practicable, remove and dispose of all ***Hazardous Contaminants***, and used batteries and waste oil to a ***Licensed Waste Disposal Facility*** or recycling facility.

Note 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*

Note 10.0

Where practicable take all **General Waste*** to a **Licensed Waste Disposal Facility***.

Note 10.1

Limited Regulated Waste* may be disposed of to a licensed general waste disposal facility provided the annual volume of limited regulated waste (e.g. tyres) does not exceed 10% of the annual volume of general waste.

Note 10.2.
The holder of a pipeline licence must notify the administering authority within 30 days, if they become aware that a **Notifiable Activity*** listed in Schedule 2 of the EP Act, is being carried out on the land.

Note 10.3

It is an offence to dispose of a hazardous contaminant other than waste from petroleum activities within the area of the pipeline licence. If land is contaminated through the disposal of a hazardous contaminant the land may be recorded on the **Environmental Management Register*** or the **Contaminated Land Register***. The environmental authority holder is liable for the remediation costs and attainment of a Suitability Statement* for the land. Refer to section 384 of the EP Act.

Condition 11 - Sewage Management

1. Develop a **Sewage Management Plan**. See Note 11.1.
2. The holder of the environmental authority must comply

Note 11.0

The *Environmental Protection Regulation 1998* define sewage treatment works with a peak design capacity to treat sewage of 21 or more equivalent persons as a level 1 environmentally relevant activity.

with the following requirements:

- ensure that all measures, plant and equipment used in sewage management are installed, operated and maintained effectively; and
- ensure that sewage has undergone primary treatment prior to release to land (see Note 12.4); and
- ensure sewage sludge is not disposed within the catchment area of any public or domestic water supply; and where practicable is located above known flood level; and
- ensure sewage sludge is buried with at least 250mm of topsoil; and
- prepare a plan drawn to scale showing the locality and boundaries of all sewage disposal areas (effluent or sludge), in relation to all watercourses, water storages, houses, and stock watering points within 1 km of the sewage disposal areas; and
- ensure that sewage effluent is not released to waters (see Note 12.3); and
- ensure that the disposal of sewage effluent will not lead to the contamination of any water used for drinking, domestic, manufacturing, or other purposes, or for consumption by animals; and
- ensure that all sewage disposal areas (effluent or sludge) are securely fenced to prevent animals entering ; and
- ensure notices are prominently displayed on all effluent irrigation area warning that the area is irrigated with effluent and not to use or drink the effluent (see Note 12.5 for examples); and
- ensure that the irrigation of effluent is carried out such that:
  - vegetation is not damaged;
  - soil erosion and soil structure damage is avoided;
  - there is no surface ponding of effluent;
  - percolation of effluent beyond the plant root zone is minimised;
  - the quality of ground water is not adversely affected;
  - when conditions prevent the irrigation of effluent to land (such as during rain events), alternative measures must be taken to store/dispose of effluent (such as wet weather storage or tankering off site);
- ensure all ponds used for the storage or treatment of sewage are constructed, installed and maintained:
  - so as to minimise the likelihood of any release of effluent through the bed or banks of the pond to any waters (including ground water); and
  - so that a freeboard of not less than 0.5 metres is maintained at all times except in emergencies; and

This condition relates to sewage treatment facilities with a peak design capacity of 20 equivalent persons or less (One "equivalent person" is considered to be in the range of 200 to 250 litres per person per day)

Note 11.1

A sewage management plan can be a generic document integrated into existing environmental management systems that provides for a range of sewage treatment options that reflect the scale and intensity of the project as well as variables in the receiving environment.

General requirements of a sewage management plan include:

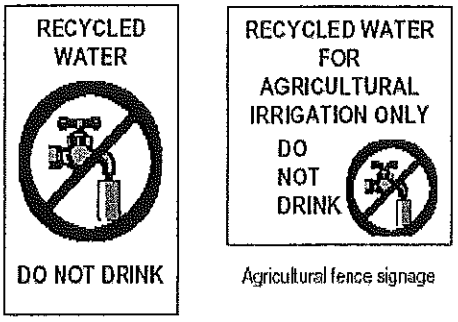
- Environmental commitments – a commitment by senior management to achieve environmental goals.
- Identification of environmental issues and potential impacts.
- Control measures for routine operations to minimise likelihood of environmental harm.
- Contingency plans and emergency procedures for non-routine situations.
- Organisational structure and responsibility
- Effective communication.
- Monitoring of the contaminant releases
- Conducting environmental impact assessments
- Staff training
- Record keeping

Note 11.2

Waters include permanent and ephemeral water bodies including rivers, creeks, lakes and wetlands.

Note 11.3

Primary treatment is the separation of suspended material from wastewater by settlement and/or floatation in septic tanks, primary settling chambers etc, prior to effluent discharge to either a

- so as to ensure the stability of the ponds' construction; and - so that vector attraction and associated nuisance is prevented or minimised; and - ensure that suitable banks and/or diversion drains are installed and maintained to exclude stormwater runoff from entering any ponds or other structures used for the storage or treatment of contaminants or wastes. • ensure a minimum separation distance of 50 metres from the boundary of an effluent disposal area to any permanent or intermittent water course, bank of lake, top water level of a surface water source used for agriculture, aquaculture or stock purposes, or easement boundary of stormwater drainage channel or bore or a dam used or likely to used for human and or domestic consumption. • ensure a minimum separation distance of 100 metres from the boundary of an effluent disposal area to the boundary of any other effluent disposal area. • ensure that noxious or offensive odours or any other noxious of offensive airborne contaminant resulting from the activity do not cause a nuisance at any odour sensitive place.	secondary-treatment process, or to a land-application system. **Note 11.4**  Tap signage Agricultural fence signage Figure 5-1 : Scheme signage requirements **Note 11.5** Effluent must only be irrigated to land in accordance with the "South Australian Reclaimed Water Guidelines" or subsequent guidelines as approved by the Environmental Protection Agency.
Condition 12 – Storage of hazardous substances, fuel and oil The holder of the environmental authority must ensure that the storage of all chemicals and flammable and combustible liquids • is contained within an on-site containment system and • is controlled in a manner that prevents environmental harm (other than trivial harm) and • is maintained in accordance with Section 5.9 of AS 1940 – Storage and handling of Flammable and Combustible Liquids of 1993.	**Note 12.0** AS 1940 requires that all chemical, fuel and oil storage facilities of more than 10 000 L on a pipeline licence, must be bunded to contain at least one hundred percent of the volume of the largest container, plus twenty-five percent of the storage capacity of the largest container up to a maximum of 10,000 L, together with ten percent of the storage capacity beyond 10,000 L. **Note 12.1** All fuel, oil and chemical containers should be stored securely; eg store 200 lt drums on bunded pallets.
Condition 13 – Spill and clean up action Notwithstanding the other conditions in this schedule, if a contaminant spill does occur as a result of petroleum activities, the holder of the environmental authority must:	**Note 13.0** The holder of the environmental authority should have a detailed *Emergency*

• take immediate action to stop any further release; • take immediate action to contain the contaminant to the affected area, taking particular care to protect environmentally sensitive areas; • restore or rehabilitate the environment to its condition before the release occurred; and • prevent a recurrence of the release.	*Preparedness and Response Plan* in place to address oil, fuel, chemical spill and other (eg bush fire) incidents. Plans for transmission pipelines should address all the matters listed in Part B Section 4.2.8 of the **APIA Code**, including the identification of environmentally sensitive areas. **Note 13.1** Measures to contain spills to the affected area include constructing a bund or retention basin to contain the contaminant and prevent its further escape. **Note 13.2** Ensure adequate access to the pipeline corridor is maintained (eg gates on all boundary fences are maintained). **Note 13.3** To prevent a repeat of the incident, investigate the cause of all releases and take action to prevent a recurrence. Such actions will depend on the particular situation, but could include • adoption of AS 2885.3 Threat Mitigation measures. • ensuring adequate shut-down facilities are provided, • replacing or repairing any defective plant and equipment, • ensuring all necessary corrosion prevention precautions are taken (eg cathodic protection and dosing for SRBs), • installing additional pollution control devices including warning systems and bunds.
Condition 14 - Rehabilitation As soon as practicable and within 6 months (or longer period agreed in writing by the administering authority) of the *completion* of any petroleum activities involving significant disturbance to land, the holder of the environmental authority must: • remediate any contaminated land in accordance with EP Act requirements; • reshape all *significantly disturbed land* to a stable landform similar to that of surrounding undisturbed areas;	**Note 14.0** Under the EP Act, the administering authority may only grant all or part of an application to surrender an environmental authority if, among other things, it is satisfied that the land on which each relevant petroleum activity has been carried out has been satisfactorily rehabilitated.

• on all *significantly disturbed* land, take all reasonable and practicable measures to: o re-establish surface drainage lines, o reinstate the **top layer** of the soil profile and o promote establishment of vegetation of the same species and density of cover to that of the surrounding undisturbed areas. • decommission an inactive buried pipeline by in-situ decommissioning (i.e. Abandonment in Place) consistent with the requirements of **AS 2885**.	**Note 14.1** Rehabilitation processes are usually more successful if they are undertaken progressively and in a timely manner. For example, the earlier that stockpiled top layer of the soil profile is re-used the more likely that disturbed areas can be restored to their natural condition. Where the top layer is removed and stockpiled for six months or more, seed viability and microbial activity may be diminished and upon re-spreading it may need supplementary seeding and fertilising. **Note 14.2** Establish a low crown of soil mounded over the backfilled pipeline trench, to compensate for potential subsidence of trench soil (except in cultivation areas); **Note 14.3** Install erosion and sediment control measures as necessary; **Note 14.4** For transmission pipelines refer to *Clean-up and Rehabilitation* (**APIA Code**) for advice on revegetation **Note 14.5** In areas of poor vegetation cover, over transmission pipelines where further impacts are likely, appropriate corrective actions, in line with the **APIA Code,** should be taken. **Note 14.6** Revegetation success should be monitored in accordance with a documented monitoring program. Further restoration works may be required in areas subject to differential settlement and ponding or where vegetation establishment has been less than acceptable.
Condition 15 Infrastructure All Infrastructure, constructed by or for the holder of the environmental authority (eg camps, dams powerlines), must	**Note 15.0** **Permanent Infrastructure** such as roads, tracks or storage facilities, which are to be left for the landholder, requires a **written**

be removed by the holder from the site, and the sites rehabilitated according to condition 14, prior to surrender or partial surrender of the pipeline licence, except where it is to remain with the **written agreement** of the administering authority and post pipeline licence landowner / holder.	**agreement** to be submitted with the Final Rehabilitation Report. **Note 15.1** Pipelines should be decommissioned according to the requirements of **AS 2885** **Note 15.2** Where gravel roads and tracks are not to be left for the landholder/owner, remove all material, which is inconsistent with the surrounding soil structure or land use prior to ripping and rehabilitation. e.g. where a gravel road has been constructed through an area which is used for cropping, all gravel fill material must be removed.
Condition 16 – Monitoring and complaints The holder of the environmental authority must: • maintain a record of complaints and incidents causing environmental harm, and actions taken in response to the complaint or incident; and • retain the record of complaints required by this condition for 5 years. • establish a regular program of monitoring and inspections of the petroleum (pipeline) activities, and document the monitoring and inspections carried out under the program and any actions taken.	**Note 16.0** Under the EP Act the records must be made available to an authorised person upon request. **Note 16.1** The monitoring and inspection program should particularly focus on areas that have the potential to cause environmental harm. More frequent inspections should be carried out on areas with a higher potential for environmental harm. **Note 16.2** Monitoring and inspections should include a self-audit of compliance with the conditions of this Code. The **APIA Code** also includes a pipeline inspection checklist for transmission pipelines.
Condition 17 - Notification The holder of the environmental authority must: • record and initially notify the administering authority as soon as practicable, but within 24 hours, of any emergency or incident that demonstrates non-compliance to the standard environmental conditions, and • notify the administering authority in writing within 14 days of the initial notification.	**Note 17.0** A notification of any emergency or incident, which demonstrates non-compliance to the standard environmental conditions, cannot be used in evidence in any further action taken by the administering authority as a result of the notification.

Additional Environmental Conditions	Advisory Notes
Condition A1 The holder of the environmental authority must comply with all the standard environmental conditions contained in this environmental authority until the Code of Environmental Compliance for Petroleum Pipeline Operations has been approved, then those conditions will apply.	

Definitions

APIA Code means the current Australian Pipeline Industry Association – Code of Environmental Practice.

AS2885 means Australian Standard – Pipelines – Gas and Liquid Petroleum.

Associated water is underground water taken from or interfered with from a petroleum well during the course of or resulting from carrying out petroleum activities. Associated water may be potable or suitable for stock purposes, or saline, high in fluoride, contain hydrocarbons, and/or is otherwise contaminated by a hazardous contaminant and become a **hazardous waste.**

Class R1 means broad rural locations in undeveloped areas of broadly farmed areas that are sparsely populated, where typically the area of the average allotment is greater than 5ha.

Class R2 means semi-rural locations in rural areas developed for small farms or rural residential use, where typically the area of the average allotment is between 1ha and 5ha.

Class T1 means suburban locations in areas developed for residential commercial or industrial use at which the majority of buildings have less than four floors, where typically the areas of the average allotment is less than 1ha.

Class T2 means high-rise locations in areas developed for residential, commercial or industrial use at which the majority of buildings have four or more floors, where typically the area of the average allotment is less than 1ha.

Commercial place means a place where people are present and the place is used as an office or for business or commercial purposes and includes the curtilage of any such place.

End means the stopping of the particular activity that has caused a significant disturbance in a particular area. It refers to, among other things, the end of a seismic survey or the end of a drilling operation. It does not refer to the end of all related *activities such as rehabilitation.* In other words, it does not refer to: the "completion" of the particular activity, the time at which the petroleum authority ends or the time that the land in question ceases to be part of an authority. Under the *APPEA Code* "completion" refers to the point at which the particular survey, program or operation has been rehabilitated and abandoned.

Environmentally sensitive area (as determined from the EPA GIS data base) means a location, however large or small, that has environmental values that contribute to maintaining biological diversity and integrity, have intrinsic or attributed scientific, historical or cultural heritage value, or are important in providing amenity, harmony or sense of community.

Hazardous contaminant means a contaminant, other than an unexploded ordinance, that, if improperly treated, stored, disposed of or otherwise managed, is likely to cause serious or material environmental harm because of

(a) its quantity, concentration, acute or chronic toxic effects, carcinogenicity, teratogenicity, mutagenicity, corrosiveness, explosiveness, radioactivity or flammability; or
(b) its physical, chemical or infectious characteristics.

Licensed waste disposal facility is a facility approved under a development approval and operated by a holder of a registration certificate for environmentally relevant activity item number 75 under Schedule 1 of the *Environmental Protection Regulation 1998.*

Permanent infrastructure includes any infrastructure (roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads, pipelines etc), which is to be left by *agreement* with the landowner.

Petroleum Activities means activities authorised to take place on land subject to a Petroleum Authority, including rehabilitation and decommissioning activities.

Petroleum Authority includes Authority to Prospect, Petroleum Lease, Data Acquisition Authority Water Monitoring Authority, Petroleum Facility Licence, Survey Licence and Pipeline Licence issued or granted under the *Petroleum Act 1923* or *Petroleum and Gas (Production and Safety) Act 2004.*

Pipeline Land means land on which a pipeline maybe constructed or operated under a pipeline licence.

Pipeline Licence includes a **point-to-point pipeline licence** (for a pipeline from a stated point or points to another point or points) or an **area pipeline licence** (a licence for a stated area).

Plan of Activities means the same as the **Application details** required under section 409 (c) (Requirements for making an application for a pipeline licence) of the *Petroleum and Gas (Production and Safety) Act 2004.*

Release of a contaminant into the environment, includes –
(a) to deposit, discharge, emit or disturb the contaminant; and
(b) to cause or allow the contaminant to be deposited, discharged, emitted or disturbed; and
(c) to fail to prevent the contaminant from being deposited, discharged, emitted or disturbed; and
(d) to allow the contaminant to escape; and
(e) to fail to prevent the contaminant from escaping.

Riverine area refers to the land adjoining and associated with watercourses, including the bed, banks, adjoining terraced land and riparian vegetation.

Sediment pond means a bunded or excavated structure used to contain and settle waterborne sediment running off significantly disturbed areas.

Sediment trap means a device used to filter waterborne sediment running off significantly disturbed areas. This may include silt fences, hay bales or grassed strips.

Sensitive place means
(a) a dwelling, mobile home or caravan park, residential marina or other residential place;
(b) a motel, hotel or hostel;
(c) a kindergarten, school, university or other educational institution;
(d) a medical centre or hospital;
(e) a protected area;
(f) a park or garden that is open to the public (whether or not on payment of money) for use other than for sport or organized entertainment.

Significantly disturbed and **significant disturbance** mean a disturbance caused by the petroleum activities that require human intervention to be rehabilitated. Some examples include:
(a) areas where soil has been compacted, removed, covered, exposed or stockpiled;
(b) areas where vegetation has been removed or destroyed to an extent where the land has been made susceptible to erosion;
(c) areas where land use suitability or capability has been diminished;
(d) areas within a watercourse, waterway, wetland or lake where petroleum activities occur and human intervention is necessary to restore or stabilise the disturbed area;
(e) areas submerged by hazardous waste storage and dam walls in all cases;
(f) areas under temporary infrastructure. Temporary infrastructure includes any infrastructure (roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc) which is to be removed after petroleum activities have ceased; or
(g) areas where land has become contaminated land and a suitability statement has not been issued.

However, the following areas are not significantly disturbed:
(a) areas off the petroleum authority (e.g. roads or tracks which provide access to the petroleum authority);
(b) areas previously significantly disturbed which have been rehabilitated to the administering authority's satisfaction.
(c) areas under permanent infrastructure.

(d) areas that were significantly disturbed prior to the grant of the environmental authority, unless those areas are re-disturbed by the holder of the environmental authority during the term of the authority.
(e) minor disturbances such as drill sumps and minor respreading of soil on GPS located seismic lines.

Stable means geo-technical stability of the rehabilitated landform where instability related to the excessive settlement and subsidence caused by consolidation / settlement of the wastes deposited, and sliding / slumping instability has ceased.

Top layer of soil means soil, alluvium, weathered rock or other suitable plant growth medium. Top layer material should be non-crusting and low in salinity.

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

Watercourse Means a river, creek or stream in which water flows permanently or intermittently in a visibly defined channel (natural, artificial or artificially improved) with:
(a) continuous bed and banks;
(b) an extended period of flow for some months after rain ceases, and
(c) an adequacy of flow that sustains basic ecological processes and maintains biodiversity.

Waterway - A naturally occurring feature where surface water runoff normally collects, such as a clearly defined swale or gully, but only flows in response to a local rainfall event.

APPENDIX A Environmentally Sensitive Areas

Category A - Environmentally Sensitive Areas		
LAND AREA CLASSIFICATION	**ADMINISTERING LEGISLATION**	**AMINISTERING AUTHORITY**
▪ National Parks (Scientific) ▪ National Parks ▪ National Parks (Aboriginal Land) ▪ National Parks (Torres Strait Islander Land) ▪ National Parks (Recovery) ▪ Conservation Parks ▪ Forest Reserves	Nature Conservation Act 1992	EPA
▪ Restricted Areas that include Constructed Water Reservoirs	Mineral Resources Act 1989	NR&M
▪ Marine Parks (other than general use zones)	Marine Parks Act 1982	EPA
▪ Wet Tropics Area	Wet Tropics World Heritage Protection and Management Act 1993	WTMA
▪ Great Barrier Reef Marine Park Region	Great Barrier Reef Marine Park Act 1975 (Cth)	GBRMPA

Category B – Environmentally Sensitive Areas		
LAND AREA CLASSIFICATION	**ADMINISTERING LEGISLATION**	**ADMINISTERING AUTHORITY**
• Coordinated Conservation Areas; • Wilderness Areas; • World Heritage Management Areas; • International Agreement Areas; • An area of Critical Habitat or Major Interest identified under a Conservation Plan; • Areas subject to an Interim Conservation Order;	Nature Conservation Act 1992	EPA
An area subject to following conventions: • Convention on the Conservation of Migratory Species of Wild Animals (Bonn, 23 June 1979); • Convention on Wetlands of International Importance, especially as Waterfowl Habitat (Ramsar, 2 February 1971); • Convention Concerning the Protection of the World Cultural and Natural Heritage (Paris, 16 November 1972).	International Conventions	EPA
• General Use Zones of a Marine Park	Marine Parks Act 1982	EPA
• An Area to the Seaward Side of the Highest Astronomical Tide	Nil	EPA
• Registered Places; • Area of Cultural Heritage Significance; • Protected Area;	Queensland Heritage Act 1992 Aboriginal Cultural Heritage Act 2003 Torres Strait Islander Cultural Heritage Act 2003	EPA NR&M NR&M
• Designated Landscape Area (other than the area known as the 'Stanbroke Pastoral Holding')	Aboriginal Cultural Heritage Act 2003 Torres Strait Islander Cultural Heritage Act 2003	EPA
• Feature Protection Area; • State Forest Park; • Scientific Area	Forestry Act 1959	EPA
• Fish Habitat Area; • A place in which a Marine Plant is situated	Fisheries Act 1994	DPI
• Endangered Regional Ecosystems (ERE); * • An area of High Nature Conservation Value	Nil	EPA
• Essential habitat of Endangered, Vulnerable and Rare Species for the purposes of a Regional Vegetation Management Code	Vegetation Management Act 1999	EPA

* ERE classification is determined according to the Queensland Herbarium **Biodiversity Status** Classification

Category C – Environmentally Sensitive Areas		
LAND AREA CLASSIFICATION	ADMINISTERING LEGISLATION	ADMINISTERING AUTHORITY
• Nature Refuges and Resource Reserves	Nature Conservation Act 1992	EPA
• Declared Catchment Areas; • Declared Irrigation and Irrigation Undertaking Areas; • Water Reservoirs and Drainage Areas.	Water Act 2000 and various Water Board Acts	NR&M and/ or Relevant Storage Operator or Board
• River Improvement Areas	River Improvement Trust Act 1940	NR&M and the Relevant River Trust
• The Designated Landscape Area - Stanbroke Pastoral Holding	Aboriginal Cultural Heritage Act 2003 Torres Strait Islander Cultural Heritage Act 2003	EPA
Areas under Part 5 Division 2 of the Aboriginal Cultural Heritage Act 2003 and Torres Strait Islander Cultural Heritage Act 2003	Aboriginal Cultural Heritage Act 2003 Torres Strait Islander Cultural Heritage Act 2003	NR&M
• State Forest or Timber Reserves	Forestry Act 1959	EPA
• DPI Research Sites	Nil	DPI
• Areas of land occupied by the Bureau of Sugar Experiment Stations.	Sugar Industry Act 1999	DPI
• Critical Areas and Public Purpose Reserves	Land Act 1994	NR&M
• An area subject to a State Planning Policy that the policy declares is in need of environmental protection.	Integrated Planning Act 1997	EPA
• Erosion Prone Areas under Coastal Management Plans and Coastal Management Control Districts	Coastal Protection and Management Act 1995	EPA