



Queensland Government
Environmental Protection Agency
Queensland Parks and Wildlife Service

Department of Environment and Resource Management
 Petroleum and Gas Unit
 GPO Box 2771
 BRISBANE QLD 4001

Environmental Authority (Petroleum Activities)

Permit Number PEN200437009

Section 309X 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 or more of the following petroleum authorities: authority to prospect; petroleum lease, data acquisition authority, water monitoring authority, petroleum facility licence, survey licence, pipeline licence, licence, permit, primary licence, secondary licence or special prospecting authority. In general, a petroleum activity means an activity that is authorised under the relevant petroleum legislation. Rehabilitation and remediation activities that facilitate and support petroleum activities and any action taken to prevent environmental harm are included in the definition of petroleum activity.

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

IOR Energy Pty Ltd
 39 Byron Street
 Bulimba
 BRISBANE QLD 4171

in respect of carrying out Level 2 Petroleum Activities under Section 23 of the *Environmental Protection Regulation 2008* on or in relation to the relevant petroleum authorities identified below:

Relevant petroleum authority	Project Name	Location description
Petroleum Pipeline Licence 9	Eromanga Pipeline	See Appendix 2

This environmental authority (petroleum activities) [the authority] is subject to the condition that the holder of the environmental authority carry out the above petroleum activities in accordance with the conditions listed in the attached schedule and appendices.

This environmental authority remains in force unless it is cancelled, surrendered or suspended.

This environmental authority takes effect from the date of grant of the relevant petroleum authority.

The anniversary date of this environmental authority is 11 February.



Signed

11 FEBRUARY 2010

Date

Parma Nand
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 CONDITIONS

This environmental authority incorporates the following schedules of conditions relevant to various issues:

- Schedule A - General
- Schedule B - Air Emissions
- Schedule C - Water Management
- Schedule D - Noise Management
- Schedule E - Waste Management
- Schedule F - Land Management
- Schedule G - Cultural Heritage
- Schedule H - Nature Conservation
- Schedule I - Declared Wild River Areas
- Schedule J - PPL9 – Oil Pipeline
- Schedule K - Monitoring Programs
- Schedule L - Community Issues
- Schedule M - Notification Procedures

- Appendix 1 - Definitions
- Appendix 2 - Map of PPL9
- Appendix 3 - Environmentally Sensitive Areas



SCHEDULE A

GENERAL

PREVENT AND/OR MINIMISE LIKELIHOOD OF ENVIRONMENTAL HARM

- (A1) This authority does not authorise environmental harm unless a condition contained within this authority explicitly authorises that harm. Where there is no condition or the authority is silent on a matter, the lack of a condition or silence shall not be construed as authorising harm.
- (A2) In carrying out petroleum activities the holder of this authority must prevent and / or minimise the likelihood of environmental harm being caused.

MAINTENANCE OF MEASURES, PLANT AND EQUIPMENT

- (A3) The holder of this authority must:
- a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this authority; and
 - b) maintain 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.
- (A4) All instruments, equipment and measuring devices used for measuring or monitoring in accordance with any condition of this authority must be calibrated, appropriately operated and maintained.
- (A5) No change, replacement or alteration of any plant or equipment is permitted if the change, replacement or alteration increases the environmental harm caused by the petroleum activities.
- (A6) The holder of this authority must ensure that daily operation and maintenance of all plant and equipment relating to the authorised petroleum activities are carried out by suitability qualified, competent and experienced person(s).
- (A7) All analyses and tests required to be conducted under this authority must be carried out by a laboratory that has NATA certification for such analyses and tests, except as otherwise authorised by the administering authority.
- (A8) The holder of this authority must undertake petroleum activities in accordance with the relevant Environmental Management Plan. In the event of any inconsistency between the conditions of this authority and the Environmental Management Plan, the conditions of this authority prevail.

SPILL RESPONSE

- (A9) A spill response plan must be developed for all pipelines and other plant or equipment under this authority carrying liquids that have the potential to cause environmental harm. The plan must address the following:
- a) monitoring and detection systems;
 - b) notification and reporting procedures (internal and external);
 - c) call-out procedures and contact lists;
 - d) measures required to halt the spill (i.e. control of pumps, valves etc);
 - e) spill containment procedures;
 - f) procedures to safely recover the spilled material;
 - g) clean up and rehabilitation procedures;
 - h) requirements for the remediation or disposal of contaminated soil;
 - i) personnel responsibilities;
 - j) equipment requirements, location, storage, maintenance and transport;
 - k) communications and logistics; and



- l) incident investigation procedures.

FINANCIAL ASSURANCE

- (A10) The holder of this authority must provide a financial assurance in the amount and form required by the administering authority for the operation and decommissioning of the pipeline and any associated infrastructure. The calculation of financial assurance must be in accordance with the Department of Environment and Resource Management guideline "Financial assurance for petroleum activities".
- (A11) Subject to Condition (A10), the holder of this authority must revise the estimate of financial assurance every five (5) years on the anniversary date of this authority.
- (A12) In accordance with Condition (A11), the revised calculation of financial assurance must be provided to the administering authority on the anniversary date of this authority.
- (A13) The financial assurance is to remain in force until the administering authority is satisfied that no claim is likely to be made on the assurance.

DEFINITIONS

- (A14) Words and phrases used in this authority are defined in Appendix 1 – Definitions. Where a definition for a term used in this authority is sought and the term is not defined within this authority, the definitions in the *Environmental Protection Act 1994*, its Regulation and Environmental Protection Policies must be used.



SCHEDULE B

AIR EMISSIONS

DUST MANAGEMENT

- (B1) The release of any dust and particulate matter resulting from the petroleum activities must not cause an environmental nuisance at any sensitive or commercial place.
- (B2) Notwithstanding Condition (B1), dust and particulate matter must not exceed the following levels when measured at any sensitive or commercial place:
- a) Dust deposition of 120 milligrams per square metre per day, averaged over one (1) month, when monitored in accordance with AS 3580.10.1 *Methods for sampling and analysis of ambient air - Determination of particulates - Deposited matter - Gravimetric method of 1991*; or
 - b) a concentration of particulate matter with an aerodynamic diameter of less than 10 micrometre (μm) (PM10) suspended in the atmosphere of 50 micrograms per cubic metre over a 24 hour averaging time, at a nuisance sensitive or commercial place downwind of the site, when monitored in accordance with AS3580.9.6 *'Ambient air - Particulate matter - Determination of suspended particulate PM10 high-volume sampler with size-selective inlet Gravimetric method'*; or
 - c) a concentration of particulate matter with an aerodynamic diameter of less than 2.5 micrometre (μm) (PM2.5) suspended in the atmosphere of 25 micrograms per cubic metre over a 24 hour averaging time, at a nuisance sensitive or commercial place downwind of the site, when monitored in accordance with AS/NZS3580.9.10.2006.
- (B3) When requested by the administering authority, dust and particulate monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive or commercial place, and the results must be notified within 14 days to the administering authority following completion of monitoring.
- (B4) If monitoring, in accordance with B3 indicates exceedence of the relevant limits in Condition (B2), then the holder of this authority must:
- a) address the complaint including the use of appropriate dispute resolution if required; and/or
 - b) as soon as practicable implement dust abatement measures so that emissions of dust from the activity do not result in further environmental nuisance.

ODOUR MANAGEMENT

- (B5) The release of noxious or offensive odour(s) or any other noxious or offensive airborne contaminant(s) resulting from the petroleum activity must not cause an environmental nuisance at any sensitive or commercial place.
- (B6) When requested by the administering authority, odour monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive place, and the results must be notified within 14 days to the administering authority following completion of monitoring.
- (B7) If monitoring in accordance with Condition (B6), indicates Condition (B5) is not being met, then the holder of this authority must:
- a) address the complaint including the use of appropriate dispute resolution if required; and/or



- b) as soon as practicable implement odour abatement measures so that emissions of odour from the activity do not result in further environmental nuisance.

SCHEDULE C

WATER MANAGEMENT

RELEASE TO WATERS

- (C1) The holder of this authority must ensure that the petroleum activities do not result in the release of contaminants to waters, unless specifically authorised under this authority.

RELEASE TO LAND

- (C2) The holder of this authority may allow pipeline trench water to be released to land for disposal provided that the water does not have any properties nor contain any organisms or other contaminants in concentrations that are capable of causing environmental harm.
- (C3) Subject to Condition (C2), the holder of this authority must ensure that the release of trench water to land must be carried out in a manner that ensures that:
- a) vegetation is not damaged;
 - b) soil erosion and soil structure damage is avoided;
 - c) there is no surface ponding of trench water;
 - d) the quality of groundwater is not adversely affected; and
 - e) there are no releases of trench water to any surface waters.

MANAGEMENT OF HYDRO-TEST WATER

- (C4) Hydrostatic test water must be contained in existing dams on site, tested and either:
- a) directly reused where appropriate for petroleum activities;
 - b) treated so that it meets water quality criteria for the intended reuse; or
 - c) disposed of via evaporation in a suitably lined pond.

STORMWATER MANAGEMENT

- (C5) Except as otherwise provided by the conditions of this authority, petroleum activities must be carried out by such reasonable and practicable means necessary to prevent the contact of incident rainfall and stormwater runoff with waste or other contaminants.
- (C6) All stormwater treatment devices used to treat stormwater from the authorised activities must be maintained in proper and efficient working condition.
- (C7) The maintenance and cleaning of vehicles and other equipment or plant must be carried out in areas where the resultant contaminants are not to be released to any waters.

DETERMINING WATER QUALITY CONTAMINANTS

- (C8) All determinations of the quality of contaminants released must be made in accordance with methods prescribed in the latest edition of the Department of Environment and Resource Management Water Quality Sampling Manual, and carried out on samples that are representative.



SCHEDULE D

NOISE MANAGEMENT

- (D1) The holder of this authority must ensure that petroleum activities do not cause environmental nuisance at any sensitive or commercial place.
- (D2) Prior to undertaking petroleum activities that are likely to impact a noise sensitive or commercial place, the holder of this authority must investigate potential noise emissions from the proposed petroleum activities and determine if noise emissions are likely to exceed the limits set in Schedule D – Table 1. If noise emissions are likely to exceed these limits, then the holder must take appropriate measures to either relocate the petroleum activity or incorporate noise abatement and / attenuation measures to mitigate those impacts. These measures must be in place prior to undertaking the proposed petroleum activity.
- (D3) Notwithstanding condition (D1), the holder of this authority must ensure that noise emitted from any aspect of petroleum activities does not exceed the noise levels specified in Schedule D Table 1 – Noise Limits, at any sensitive place or commercial place.

Schedule D Table 1 – Noise Limits

Sensitive place						
Noise level dB(A) measured as:	Monday to Saturday			Sundays and public holidays		
	7am to 6pm	6pm to 10pm	10pm to 7am	9am to 6pm	6pm to 10pm	10pm to 9am
L _{A90} , adj, 15 mins	lesser of bg+3 or 48	lesser of bg+0 or 40	lesser of bg+0 or 40	lesser of bg+0 or 40	lesser of bg+0 or 40	lesser of bg+0 or 40
L _{A10} , adj, 15 mins	lesser of bg+5 or 50	lesser of bg+5 or 45	lesser of bg+0 or 40	lesser of bg+5 or 45	lesser of bg+5 or 40	lesser of bg+0 or 35
L _{A1} , adj, 15 mins	lesser of bg+10 or 55	lesser of bg+10 or 50	lesser of bg+5 or 45	lesser of bg+10 or 50	lesser of bg+10 or 45	lesser of bg+5 or 40
Commercial place						
Noise level dB(A) measured as:	Monday to Saturday			Sundays and public holidays		
	7am to 6pm	6pm to 10pm	10pm to 7am	9am to 6pm	6pm to 10pm	10pm to 9am
L _{A90} , adj, 15 mins	lesser of bg+5 or 50	lesser of bg+0 or 45	lesser of bg+0 or 40	lesser of bg+3 or 43	lesser of bg+0 or 40	lesser of bg+0 or 40
L _{A10} , adj, 15 mins	lesser of bg+10 or 55	lesser of bg+10 or 50	lesser of bg+5 or 45	lesser of bg+10 or 50	lesser of bg+10 or 45	lesser of bg+5 or 40
L _{A1} , adj, 15 mins	lesser of bg+15 or 60	lesser of bg+15 or 55	lesser of bg+10 or 50	lesser of bg+15 or 55	lesser of bg+15 or 50	lesser of bg+10 or 45

- bg = background noise level
- In the event that measured bg is less than 25 dB(A), then 25 dB(A) can be substituted for the measured level

- (D4) The method of measurement and reporting of noise levels must be in accordance with the most recent edition of the Department of Environment and Resource Management's Noise Measurement Manual or the most recent version of AS1055 *Acoustics – Description and measurement of environmental noise*.
- (D5) When requested by the administering authority, noise monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive or commercial place, and the results must be notified within 14 days to the administering authority following completion of monitoring.



- (D6) If monitoring in accordance with Condition (D5), indicates Condition (D3) is not being met, then the holder of this authority must:
- a) address the complaint including the use of appropriate dispute resolution if required; and/or
 - b) as soon as practicable implement noise abatement measures so that noise emissions from the activity do not result in further environmental nuisance.
- (D7) Upon agreement with any affected person(s), and where alternative arrangements are in place that prevent environmental nuisance of noise emissions within a sensitive place, the noise levels provided in Schedule D Table 1 – Noise Limits, do not apply for that period in which the alternative arrangement is in place. These arrangements will be made with all related costs incurred to be borne by the holder of this authority.



SCHEDULE E

WASTE MANAGEMENT

- (E1) The holder of this authority must ensure that petroleum activities do not result in the release or likely release of a hazardous contaminant to land or waters.
- (E2) Where practicable, general waste generated in carrying out the petroleum activities must be reused, recycled or removed to a facility that can lawfully accept the waste under the *Environmental Protection Act 1994*.
- (E3) Waste, including vegetation, must not be burnt on site.
- (E4) Any spillage of hazardous waste or other 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 thereby releasing such waste or contaminants to any land or waters.
- (E5) 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.
- (E6) When regulated waste is removed from within the boundary of the operational land and transported by the holder of this authority, a record must be kept of the following:
 - a) date of waste transport;
 - b) quantity of waste removed and transported;
 - c) type of waste removed and transported;
 - d) route selected for transport of waste;
 - e) quantity of waste delivered; and
 - f) any incidents (e.g. spillage) that may have occurred on route.
- (E7) If a person removes regulated waste associated with activities within the operational land and disposes of such waste in a manner which is not authorised or is improper or unlawful then, as soon as practicable, notify the administering authority of all relevant facts, matters and circumstances known concerning the disposal.

SCHEDULE F LAND MANAGEMENT

MINIMISING DISTURBANCE TO LAND AND SOIL

(F1) The holder of this authority must:

- a) minimise disturbance to land in order to prevent land degradation; and
- b) ensure that for land that is to be significantly disturbed by petroleum activities (except in area of highly erosive soils), the top layer of the soil profile is removed; and
 - i. stockpiled in a manner that will preserve its biological and chemical properties; and
 - ii. used for rehabilitation purposes in accordance with condition (F14).

VEGETATION MANAGEMENT

(F2) The holder of this authority must:

- a) prevent or minimise disturbance to vegetation by petroleum activities; and
- b) manage the effects of clearing to prevent the loss of biodiversity, reduction of ecological processes and land degradation.

(F3) The holder of this authority must consider whether it is feasible to avoid clearing, and where viable alternatives exist, must not clear vegetation:

- a) in, or within 50 metres of, the high bank of a watercourse;
- b) in, or within 50 metres of, the static high water mark of wetlands, lakes or springs;
- c) in a way that isolates clumps or dissects corridors of vegetation;
- d) on slopes greater than 5%;
- e) on dispersible soils; and
- f) in existing or potential discharge areas.

FAUNA MANAGEMENT

(F4) During construction, pipe must be strung with gaps to allow for fauna movement across the line of the pipe.

(F5) Measures must be employed to prevent fauna entrapment in pipe section or within the pipeline trench.

(F6) Open trenches and pipes must be checked for fauna prior to backfill and any trapped animals removed.

PROTECTION OF RIVERINE AREAS

(F7) Unless otherwise approved under relevant legislation, the holder of this authority must not:

- a) excavate or place fill in a way that interferes with the flow of water in a watercourse, wetland, or spring, including; works that divert the course of flow of the water, or works that impound the water;
- b) undertake activities that take water from a watercourse, wetland or spring;
- c) undertake activities that take overland flow water using works that are mentioned as assessable development in a water resource plan under the *Water Act 2000*.

(F8) Activities resulting in significant disturbance to the bed or banks of a watercourse or wetland, or a spring must:



- a) only be undertaken where necessary for the construction and/or maintenance of roads, tracks and pipelines that are essential for carrying out the authorised petroleum activities and no reasonable alternative location is feasible; and
- b) be no greater than the minimum area necessary for the purpose of the significant disturbance; and
- c) be designed and undertaken by an appropriately qualified person; and
- d) have rehabilitation commence immediately upon cessation of the works.

(F9) Sediment control measures must be implemented to minimise any increase in water turbidity due to carrying out petroleum activities in the bed or banks of a watercourse or wetland, or a spring.

(F10) Routine visual monitoring must be undertaken while carrying out petroleum activities in a watercourse, wetland or spring. If, due to the petroleum activities, water turbidity increases in the watercourse, wetland or spring outside contained areas, works must cease and the sediment control measures must be rectified before activities recommence.

REHABILITATION REQUIREMENTS

(F11) Progressive rehabilitation of disturbed areas must commence as soon as practicable following the completion of any construction or operational works associated with the authorised petroleum activities on the relevant petroleum authority.

(F12) The holder of the authority must:

- a) remediate contaminated land caused by petroleum activities in accordance with EP Act requirements and this environmental authority; and
- b) undertake works to establish a safe, stable, non polluting landform similar to that of surrounding undisturbed areas, including where relevant excavate or place fill in a way that does not interfere with the flow of water in a watercourse, wetland, or spring, including:
 - i. backfilling any voids and trenches;
 - ii. neutralising and/or encapsulating any acid producing or potentially acid producing material;
 - iii. re-establishing surface drainage lines;
 - iv. minimising the potential for slumping, subsidence or erosion;
 - v. reinstating the top layer of the soil profile;
 - vi. respraying any cleared vegetation; and
 - vii. promoting establishment of vegetation of similar species composition and density of cover to the surrounding undisturbed land;

unless the holder of this authority has the written consent of the landowner/holder and the administering authority.

(F13) As soon as practicable and within three (3) months from the date of cessation of petroleum activities that cause any significant disturbance to land, the holder of this authority must:

- a) investigate contaminated land status in accordance with *Environmental Protection Act 1994* requirements and the National Environment Protection (Site Assessment) Measure 1999 (NEPM) where land has been subject to contamination caused by petroleum activities authorised under this authority.

(F14) All land significantly disturbed by petroleum activities must be rehabilitated to:

- a) a stable landform with a self-sustaining vegetation cover with same species and density of cover to that of the surrounding undisturbed areas;
- b) ensure that all land is reinstated to the pre-disturbed land use and suitability class;



- c) ensure that the maintenance requirements for rehabilitated land is no greater than that required for the land prior to its disturbance by petroleum activities; and
 - d) ensure that the water quality of any residual void or water bodies constructed by petroleum activities meets criteria for subsequent uses and does not have potential to cause environmental harm.
- (F15) Maintenance of rehabilitated areas must take place to ensure and demonstrate:
- a) stability of landforms;
 - b) erosion control measures remain effective;
 - c) stormwater runoff and seepage from rehabilitated areas does not negatively affect the environmental values of any waters;
 - d) plants show healthy growth and recruitment is occurring; and
 - e) rehabilitated areas are free of any declared pest plants.
- (F16) Rehabilitation can be considered successful when the site can be managed for its designated land-use (either similar to that of surrounding undisturbed areas or as otherwise agreed in a written document with the landowner/holder and administering authority) without any greater management input than for other land in the area being used for a similar purpose and there is evidence that the rehabilitation has been successful for at least three (3) years.

STORAGE AND HANDLING OF CHEMICALS, FLAMMABLE AND COMBUSTIBLE LIQUIDS

- (F17) All explosives, hazardous chemicals, corrosive substances, toxic substances, gases and dangerous goods must be stored and handled in accordance with the relevant Australian Standard where such is available.
- (F18) Flammable and combustible liquids (including petroleum products and associated piping and infrastructure), must be stored, handled and maintained in accordance with the latest edition of Australian Standard 1940 – *The Storage and Handling of Flammable and Combustible Liquids*.
- (F19) Any liquids stored on site that have the potential to cause environmental harm must be stored in or serviced by an effective containment system that is impervious to the materials stored and managed to prevent the release of liquids to waters or land.
- (F20) Drum storages must be banded so that the capacity and construction of the bund is sufficient to contain at least 25% of the maximum design storage volume within the bund.
- (F21) All containment systems must be designed to minimise rainfall collection within the system.



SCHEDULE G

CULTURAL HERITAGE

HERITAGE PLACES AND ARCHAEOLOGICAL ARTEFACTS

- (G1) The holder of the environmental authority must take all reasonable and practicable measures to avoid impacting upon places of known or potential cultural heritage significance whilst carrying out petroleum activities.



SCHEDULE H

NATURE CONSERVATION

ENVIRONMENTALLY SENSITIVE AREAS

- (H1) Notwithstanding any other condition of this authority, the holder of this authority must ensure that:
- a) petroleum activities are not conducted within a Category A or Category B environmentally sensitive area;
 - b) petroleum activities 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
 - c) petroleum activities are not conducted in a Category C environmentally sensitive area.



SCHEDULE I

DECLARED WILD RIVER AREAS

- (11) If the petroleum authority is in or partly within a declared wild river area, or a moratorium is in place under the *Wild Rivers Act 2005*, the holder of this authority must ensure that petroleum activities within the (proposed) wild river area are conducted in accordance with the conditions in the wild river declaration for the area that state they are for petroleum activities.



SCHEDULE J

PPL9 – OIL PIPELINE

PETROLEUM INFRASTRUCTURE

- (J1) All petroleum infrastructure (including buildings, structures, plant and equipment erected and/or used for the petroleum activities) authorised under this authority must be located within the PPL9 Licence Area as shown in Appendix 2 and defined by the coordinates in Schedule J, Table 1 – Location of the PPL9 pipeline corridor.

Schedule J Table 1 – Location of the PPL9 pipeline corridor

Location	Longitude	Latitude
Start Point	143° 26' 14 E	26° 39' 03 S
End point	143° 16' 37 E	26° 40' 02 S

- (J2) The oil pipeline authorised under this authority is constructed in accordance with the design specifications as described in Schedule J, Table 2 – Pipeline Design Specifications.

Schedule J Table 2 – Pipeline Design Specifications

Pipeline Component	Design Specification
Length	19 km
Diameter	80 NB
Material	HDPE – High Density Poly Ethylene pipe
Depth Cover	750 mm
Annual Capacity	150,000 bbl p.a.
Pressure	30 – 50 kpa
Coating	None
Right of Way (ROW)	Easements exist over all sites on the pipeline route

- (J3) Prior to the commencement of decommissioning or abandonment activities the scope of work for decommissioning or abandonment of project infrastructure shall be developed and agreed to by the administering authority.
- (J4) Decommission inactive buried pipelines by in-situ decommissioning (abandonment in place).
- (J5) The holder of this authority must decommission the oil pipelines in accordance with the requirements of the relevant petroleum legislation and to a situation where ongoing, or potential environmental harm is prevented or minimised. As a minimum, the pipelines must be decommissioned such that:
- they are drained or vented and cleaned via purging or flushing;
 - they no longer contain hazardous contaminants;
 - they are left in a stable condition;
 - all the above ground infrastructure is removed, and
 - all areas disturbed by above ground infrastructure are rehabilitated in accordance with the requirements of this authority.
- (J6) All petroleum infrastructure must be removed from the relevant petroleum authority prior to surrender of this authority, except where agreed in writing by the administering authority and the current landowner.

OPERATION OF PIPELINES TO PREVENT ENVIRONMENTAL HARM



- (J7) The holder of this authority must ensure that, where the current operational plan covers decommissioning and rehabilitation of the pipelines, those operations are consistent with conditions of this authority.

EMERGENCY RESPONSE PLANS FOR DEALING WITH PIPELINE INCIDENTS THAT MAY RESULT IN ENVIRONMENTAL HARM

- (J8) The holder of this authority must implement an Emergency Response Plan from the date of grant of this authority and submit to the Administering Authority a copy of the original or subsequently amended Emergency Response Plan for the operating of the pipelines and associated facilities to aid in the effective response to an emergency situation that may result in environmental harm. The plan shall include:
- a) means by which an emergency response is initiated;
 - b) defined key roles and responsibilities required to respond to an emergency;
 - c) facilities required to coordinate the emergency response;
 - d) key contact list;
 - e) criteria for escalation of an emergency
 - f) likely emergency scenarios and guidelines for responding to such scenarios;
 - g) communication and documentation requirements; and
 - h) evacuation protocols and muster points.
- (J9) The Emergency Response Plan shall be reviewed annually to validate the adequacy of the scope of emergency scenarios and adequacy of the content.
- (J10) In accordance with Condition (J9), the holder of this authority must ensure that relevant personnel shall be trained and competent to effectively fulfill their roles required as detailed in the Emergency Response Plan to deal with pipeline incidents that could potentially result in environmental harm. Training records are to be kept for five (5) years.
- (J11) The holder of this authority must undertake emergency exercises to:
- a) test the effectiveness of the emergency response plan;
 - b) validate the competency of key emergency response personnel;
 - c) assess capability to respond to an emergency;
 - d) reinforce prior training; and
 - e) identify opportunities for improvement.

Emergency response exercises may be in the form of simulated emergencies, practical drills, desktop exercises, resources and equipment checks, or other exercises designed to systematically include all personnel likely to be involved.



SCHEDULE K MONITORING PROGRAMS

MONITORING PROGRAMS

- (K1) The holder of this authority must:
- a) develop and implement from the date of grant of this authority, a monitoring program that will demonstrate compliance with the conditions in this authority; and
 - b) document the monitoring and inspections carried out under the program and any actions taken.
- (K2) The holder of this authority must ensure that a suitably qualified, experienced and competent person(s) conduct all monitoring required by this authority.
- (K3) Record, compile and keep for a minimum of five (5) years all monitoring results required by this authority and make available for inspection all or any of these records upon request by the administering authority. Monitoring results relating to rehabilitation should be kept until the relevant petroleum tenure is surrendered.
- (K4) Any management or monitoring plans, systems or programs required to be developed and implemented by a condition of this authority must be reviewed for performance and amended if required on an annual basis.



SCHEDULE L

COMMUNITY ISSUES

MANAGING COMPLAINTS

- (L1) When the administering authority advises the holder of a complaint alleging nuisance (e.g. caused by dust or noise), investigate the complaint and advise the administering authority of the action proposed or undertaken in relation to the complaint.
- (L2) If the administering authority is not satisfied with the proposed or completed action, undertake monitoring or other action requested by the administering authority.
- (L3) When requested by the administering authority, the authority holder must undertake relevant specified monitoring within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint of environmental harm at any sensitive or commercial place. The results of the investigation (including an analysis and interpretation of the monitoring results) and abatement measures implemented must be provided to the administering authority within 14 days of completion of the investigation, or receipt of monitoring results, whichever is the latter.
- (L4) Maintain a record of complaints and incidents causing environmental harm, and actions taken in response to the complaint or incident; and
- (L5) Retain the record of complaints required by this condition for five (5) years.

COMPLAINT RESPONSE

- (L6) The holder of this authority must record the following details for all complaints received and provide this information to the administering authority on request:
 - a) time, date, name and contact details of the complainant;
 - b) reasons for the complaint;
 - c) any investigations undertaken;
 - d) conclusions formed; and
 - e) any actions taken.



SCHEDULE M

NOTIFICATION PROCEDURES

NOTIFICATION OF EMERGENCIES AND INCIDENTS

- (M1) The holder of this authority must:
- telephone the Department of Environment and Resource Management's Pollution Hotline (1300 130 372) or local office as soon as practicable, but within 24 hours, after becoming aware of any release of contaminants not in accordance with the conditions of this authority or any event where environmental harm has been caused or may be threatened; and
 - notify the administering authority in writing within 14 days of the initial notification.
- (M2) Subject to condition (M1), the holder of this authority is required to report in the case of uncontained spills (including hydrocarbon, associated water or a mixtures of both) of the following volumes or kind:
- releases of any volume to water; and
 - releases of volume greater than 200L to land; and
 - releases of any volumes where potential serious or material environmental harm is considered to exist.
- (M3) The notification of emergencies or incidents as required by conditions number (M1 and M2) must include but not be limited to the following:
- the authority number and name of holder;
 - the name and telephone number of the designated contact person;
 - the location of the emergency or incident;
 - the date and time of the release;
 - the time the holder of the authority became aware of the emergency or incident;
 - the estimated quantity and type of any substances involved in the incident;
 - the actual or potential suspected cause of the release;
 - a description of the effects of the incident including the environmental harm caused, threatened, or suspected to be caused by the release;
 - any sampling conducted or proposed, relevant to the emergency or incident; and
 - actions taken to prevent any further release and mitigate any environmental harm caused by the release.
- (M4) Within 14 days following the initial notification of an emergency or incident or receipt of monitoring results, whichever is the later, further written advice must be provided to the administering authority, including the following:
- results and interpretation of any samples taken and analysed;
 - outcomes of actions taken at the time to prevent or minimise environmental harm; and
 - proposed actions to prevent a recurrence of the emergency or incident.
- (M5) As soon as practicable, but not more than six (6) weeks following the conduct of any environmental monitoring performed in relation to the emergency or incident, which results in the release of contaminants not in accordance, or reasonably expected to be not in accordance with the conditions of this authority, written advice must be provided of the results of any such monitoring performed to the administering authority.



APPENDIX 1 – DEFINITIONS

TERM	MEANING
Administering authority	Administering authority means - (a) for a matter, the administration and enforcement of which has been devolved to a local government under section 514 of the <i>Environmental Protection Act 1994</i> – the local government; or (b) for all other matters – the Chief Executive of the Department of Environment and Resource Management; or (c) another State Government Department, Authority, Storage Operator, Board or Trust, whose role is to administer provisions under other enacted legislation.
Authority	Means an environmental authority granted in relation to an environmentally relevant activity under the <i>Environmental Protection Act 1994</i> .
Associated water	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. It may be classified as a hazardous waste.
AS 2885	Australian Standard Pipelines – Gas and Liquid Petroleum (2007 or subsequent versions thereof)
Background noise level	Background noise level $L_{A90,15min}$ means the A-weighted sound pressure level of the residual noise exceeded for 90% of a representative time period of not less than 15 minutes, using time weighting, 'F'.
Competent person	A person with the demonstrated skill and knowledge required to carry out the task to a standard necessary for the reliance upon collected data or protection of the environment.
Commercial place	A work place used as an office or for business or commercial purposes, which is not part of the petroleum activity and does not include employees' accommodation or public roads.
Construction	Includes building a new dam or pipeline and modifying or lifting an existing dam or pipeline.
Dam	Means a structure that is designed to contain, divert or control flowable substances - including any substances that are thereby contained, diverted or controlled by that structure; but does <i>not</i> mean a fabricated or manufactured tank or container designed to a recognised standard. The flowable substances referred to in this context may have been, are, or could be flowable under any perceivable conditions; and thereby present a hazard as defined in this authority. In case there is any doubt, a levee or a bund is a dam.
Design plan	Is the documentation required to describe the physical dimensions of the pipeline, the materials and standards to be used for construction of the pipeline, and the procedures and criteria to be used for operating the pipeline. It will also include the decommissioning and rehabilitation objectives in terms of procedures, works and outcomes at the end of pipeline life. The documents must include design and investigation reports, specifications and certifications; and may include 'as constructed' drawings.



TERM	MEANING
Contaminant	The <i>Environmental Protection Act 1994</i> defines, under Section 11, a contaminant as: (a) a gas, liquid or solid; or (b) an odour; or (c) an organism (whether alive or dead), including a virus; or (d) energy, including noise, heat, radioactivity and electromagnetic radiation; or (e) a combination of contaminants.
Discharge area	Discharge area is: (a) that part of the land surface where groundwater discharge produces a net movement of water out of the groundwater; and (b) identified by an assessment process consistent with the document: Salinity Management Handbook, Queensland Department of Natural Resources, 1997; or (c) identified by an approved salinity hazard map held by the Department of Environment and Resource Management.
Dispersible soils	Soils in which clay material disintegrates into particles less than 2 microns across. This can be observed within 24 hours when soil crumbs are submerged in distilled water.
Dissects corridors	Dissects corridors of vegetation means clearing vegetation that results in a break more than 50 metres wide across a corridor.
Environmental Management Plan	The environmental management plan is an environmental management document to be submitted during the application process for a level 1 environmental authority (petroleum activities).
Environmental nuisance	Environmental nuisance is unreasonable interference or likely interference with an environmental value caused by: (a) noise, dust, odour, light; or (b) an unhealthy, offensive or unsightly condition because of contamination; or (c) another way prescribed by regulation.
Environmentally sensitive area	Environmentally sensitive area (as determined from the DERM 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.
Financial assurance	A security deposit, either cash or a bank guarantee, held by the administering authority to cover the potential costs of rehabilitating areas significantly disturbed by the petroleum activities.
Groundwater	Groundwater means subsurface water, generally saturating the soil or rock in which it occurs.
Hazard	In relation to a dam as defined in this authority, means the potential for environmental harm resulting from the collapse, or failure of the dam to perform its primary purpose of containing, diverting or controlling flowable substances.
Hazardous contaminant	A contaminant 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,



TERM	MEANING
	teratogenicity, mutagenicity, corrosiveness, explosiveness, radioactivity or flammability; or (b) Its physical, chemical or infectious characteristics.
High hazard category	In relation to a dam is one that, as a result of a hazard assessment using Table 1 Appendix K, would be assessed as being in the high hazard category.
Infrastructure	Means water storage dams, well sites, pipelines, roads and tracks, buildings and other structures built for the purpose of petroleum activities.
Licensed waste disposal facility	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 <i>Environmental Protection Regulation 1998</i> .
L_A max, adj, T	L _A max, adj, T is the adjusted average maximum A-weighted sound pressure level measured over a time period T. The maxima must be measured on a sound level meter with a frequency-weighting that corresponds to perceived loudness ("A" weighting) and the meter must be set to the "fast" response time-weighting. The measured values are to be adjusted upwards by 2 dB(A) to 5 dB(A) if the noise source has tonal characteristics. The measuring period must be in excess of five minutes. The arithmetic average of the adjusted maxima, after eliminating any extraneous noise peaks, is the measure used to characterise the noise environment. (This measure will generally be similar to a percent exceedance of 10% or less. Refer to Australian Standard AS1055.)
Lake	A natural or artificial body of water, either permanent or intermittent.
Land degradation	Land degradation includes the following: (a) soil erosion; (b) rising water tables; (c) the expression of salinity; (d) mass movement by gravity of soil or rock; (e) stream bank instability; and (f) a process that results in declining water quality.
Land use	Term to describe the selected final use of the land, which is planned to occur after the cessation of petroleum operations.
Level 2 petroleum activity	A Level 2 petroleum activity is a petroleum activity that, under section 20(1) of the EP Act is prescribed as a level 2 environmentally relevant activity.
Level 1 petroleum activity	A Level 1 petroleum activity is a petroleum activity that, under section 20(1) of the EP Act is prescribed as a Level 1 environmentally relevant activity.
Low hazard category	In relation to a dam means a dam that, as a result of an hazard assessment using the Table 1 Appendix K; would be assessed as being in the low hazard category.
Noise	Noise means a sound or vibration of any frequency, whether transmitted through air or any other physical medium.



TERM	MEANING
Operational land	Means the land associated with the petroleum project for which this authority has been issued.
Petroleum activities	Petroleum activities means activities authorised to take place on land subject to a petroleum authority, including rehabilitation and decommissioning activities.
Petroleum authority	A petroleum authority is— (a) a 1923 Act petroleum tenure granted under the <i>Petroleum Act 1923</i> ; or (b) a petroleum authority granted under the <i>Petroleum and Gas (Production and Safety) Act 2004</i> ; or (c) a licence, permit, pipeline licence, primary licence, secondary licence or special prospecting authority granted under the <i>Petroleum (Submerged Lands) Act 1982</i> .
Petroleum project	A petroleum project is all activities carried out, or proposed to be carried out, under 1 or more of the following, in any combination, as a single integrated operation— (a) a 1923 Act petroleum tenure granted under the <i>Petroleum Act 1923</i> ; (b) a petroleum authority granted under the <i>Petroleum and Gas (Production and Safety) Act 2004</i> ; (c) a licence, permit, pipeline licence, primary licence, secondary licence or special prospecting authority granted under the <i>Petroleum (Submerged Lands) Act 1982</i>
Petroleum works site	A separate location on the area subject to a petroleum authority where petroleum activities are undertaken (e.g. a well site, seismic survey line, camp site, compressor site, evaporation pond etc).
Potential discharge area	Low lying parts of the landscape (relative to adjacent terrain) where groundwater movements are within 2-5m of the land surface and the landscape may be subject to upward movement of groundwater in the future.
Protected area	A protected area under the <i>Nature Conservation Act 1992</i> ; or • a marine park under the <i>Marine Parks Act 1992</i>; or • a World Heritage Area.
Progressive rehabilitation	Rehabilitation (defined below) undertaken progressively or as a staged approach to rehabilitation as petroleum operations are ongoing.
Rehabilitation	The process of reshaping and revegetating land to restore it to a stable landform and in accordance with the acceptance criteria set out in this environmental authority and, where relevant, includes remediation of contaminated land.
Representative	A sample set which covers the variance in monitoring or other data either due to natural changes or operational phases of the petroleum activities.
Regulated dam	Means any dam in the significant or high hazard category as defined above.
Riverine area	Refers to the land confined to the flood flow channel of a watercourse.
Sedimentation pond	A bunded or excavated structure used to contain and settle waterborne sediment running off disturbed areas.



TERM	MEANING
Self sustaining	An area of land that has been rehabilitated and has maintained the required acceptance criteria without human intervention for a period nominated by the administering authority.
Sensitive place	Sensitive place means any of the following places – (a) a dwelling; (b) a library, childcare centre, kindergarten, school, college, university or other educational institution; (c) a hospital, surgery or other medical institution; (d) a protected area or an area identified under a conservation plan as a critical habitat or an area of major interest, under the <i>Nature Conservation Act 1992</i>; (e) a marine park under the <i>Marine Parks Act 1982</i>; and (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 organised entertainment).
Sewage	Sewage is the effluent discharged from a sanitary appliance (i.e. sewage treatment works).
Significantly disturbed land	Significantly disturbed land and significant disturbance means land if: (a) it is contaminated land; or (b) it has been disturbed and human intervention is needed to rehabilitate it: i. to a state required under the relevant environmental authority; or ii. if the environmental authority does not require the land to be rehabilitated to a particular state – to its state immediately before the disturbance. Examples of a disturbance to land: (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 or long-term 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.



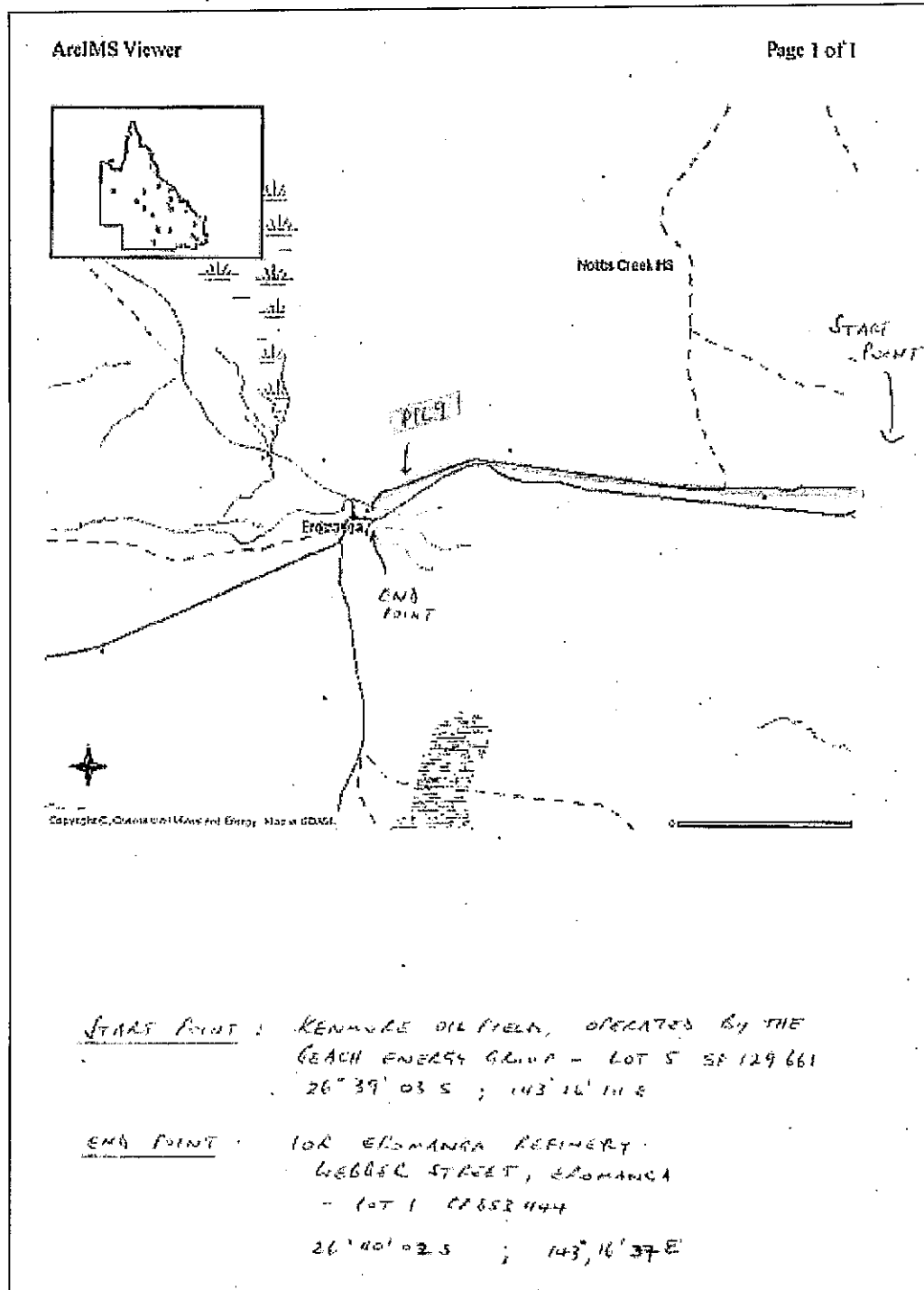
TERM	MEANING
Significant hazard category	In relation to a dam is one that, as a result of a hazard assessment using Table 1 Appendix K, would be assessed as being in the significant hazard category.
Stable	Means land form dimensions are or will be stable within tolerable limits now and in the foreseeable future. Stability includes consideration of geotechnical stability, settlement and consolidation allowances, bearing capacity (trafficability), erosion resistance and geochemical stability with respect to seepage, leachate and related contaminant generation.
Suitably qualified and experienced person for dams	Means one who is a Registered Professional Engineer of Queensland (RPEQ) under the provisions of the Professional Engineers Act 1988, OR registered as a National Professional Engineer (NPER) with the Institution of Engineers Australia, OR holds equivalent professional qualifications to the satisfaction of the administering authority for the Act, in these 'relevant fields': (a) knowledge of engineering principles related to the structures, geomechanics, hydrology, hydraulics, chemistry and environmental impact of dams; and (b) at least a total of five years of suitable experience and demonstrated expertise in at least four of the following areas: • investigation, design or construction of dams; • operation and maintenance of dams; • geomechanics with particular emphasis stability, geology and geochemistry; • hydrology with particular reference to flooding, estimation of extreme storms, water management or meteorology; • hydraulics with particular reference to sediment transport and deposition, erosion control, beach processes; and • hydrogeology with particular reference to seepage, groundwater, solute transport processes and monitoring thereof; and • dam safety
Suitably qualified and experienced person for pipelines	Means one who is a Registered Professional Engineer of Queensland (RPEQ) under the provisions of the <i>Professional Engineers Act 1988</i> , OR registered as a National Professional Engineer (NPER) with the Institution of Engineers Australia, OR holds equivalent professional qualifications to the satisfaction of the administering authority for the Act, in these 'relevant fields' of designing, constructing, operating and decommissioning high pressure petroleum pipelines.
Top layer	The surface layer of a soil profile, which is usually 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 natural surface.
Void	Means any man-made, open excavation in the ground.
Watercourse	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.



TERM	MEANING
Waters	Waters includes river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, unconfined water natural or artificial watercourse, bed and bank of any waters, dams, non-tidal or tidal waters (including the sea) or any part thereof, stormwater channel, stormwater drain, roadside gutter, stormwater run-off, and groundwater and any part thereof.
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.
Wetland	An area of permanent or periodic/intermittent inundation, whether natural or artificial, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed 6m. Wetlands typically include areas such as lakes, swamps, marshes, estuaries or mudflats.
Wild river areas	Wild river areas are defined in the <i>Wild Rivers Act 2005</i> and may include the following— (a) high preservation areas; (b) preservation areas; (c) floodplain management areas; (d) subartesian management areas.



APPENDIX 2 – Map of PPL9





APPENDIX 3 – Environmentally Sensitive Areas

Category A and Category B environmentally sensitive areas

Category A and Category B environmentally sensitive areas are listed in Section 25 and 26 respectively of the *Environmental Protection Regulation 2008*.

Category C environmentally sensitive areas

LAND AREA CLASSIFICATION	ADMINISTERING LEGISLATION	ADMINISTERING AUTHORITY
Nature Refuges and Resource Reserves	<i>Nature Conservation Act 1992</i>	Department of Environment and Resource Management
Koala Habitat Area	<i>Nature Conservation (Koala) Conservation Plan 2006</i>	Department of Environment and Resource Management
An area identified as essential habitat by the EPA for a species of wildlife listed as endangered, vulnerable, near threatened or rare under the Nature Conservation Act 1992	<i>Nature Conservation Act 1992</i>	Department of Environment and Resource Management
Declared Catchment Areas	<i>Water Act 2000</i>	Department of Environment and Resource Management and/or Relevant Storage Operator or Board
River Improvement Areas	<i>River Improvement Trust Act 1940</i>	Department of Environment and Resource Management and the Relevant River Trust
Former Designated Landscape Area - Stanbroke Pastoral Holding	<i>Aboriginal Cultural Heritage Act 2003</i>	Department of Environment and Resource Management
Areas under Part 5 Division 2 of the Aboriginal Cultural Heritage Act 2003 and Torres Strait Islander Cultural Heritage Act 2003	<i>Aboriginal Cultural Heritage Act 2003</i> <i>Torres Strait Islander Cultural Heritage Act 2003</i>	Department of Environment and Resource Management
State Forest or Timber Reserves	<i>Forestry Act 1959</i>	Department of Environment and Resource Management
DPI Research Sites	<i>Nil</i>	Department of Employment, Economic Development and Innovation
Areas of land occupied by the Bureau of Sugar Experiment Stations.	<i>Sugar Industry Act 1999</i>	Department of Employment, Economic Development and Innovation
Coastal Management Districts	<i>Coastal Protection and Management Act 1995</i>	Department of Environment and Resource Management



LAND AREA CLASSIFICATION	ADMINISTERING LEGISLATION	ADMINISTERING AUTHORITY
Declared Areas	<i>Sections 17, 18 and 19a of the Vegetation Management Act 1999</i>	Department of Environment and Resource Management
An area shown as a wetland on a 'map of referable wetlands'	<i>Environmental Protection Act 1994</i>	Department of Environment and Resource Management
Reserves under the Land Act 1994	<i>Land Act 1994</i>	Department of Environment and Resource Management
An 'of concern' regional ecosystem identified in the database maintained by the EPA called 'Regional ecosystem description database' containing regional ecosystem numbers and descriptions.	<i>Nil</i>	Department of Environment and Resource Management

Important Note: Regional ecosystem classification is determined according to the Queensland Herbarium *Biodiversity Status Classification*. Information on ERE's is maintained by the DERM on the Regional Ecosystem Description Database.