

APPROVALS FOR QUEENSLAND COAL SEAM GAS OPERATORS

Gas Fields EIANZ Seminar Pit to Port

Environmental Protection Act 1994
Non - Code Compliant Level 2 Environmental Authority (chapter 5A activities)

Form# Number: PEN200329209

Under section 200K of the Environmental Protection Act 1994 this permit is issued to:

Proposed holder:	J&K158889
Sarisa TOGA Pty Ltd	Sarisa IPV CSG Corp
Orana Coal Services Centre	Sarisa Coal Corp
65 Flocks Street	Sarisa Coal Services Corp
ACELADE SA 5000	Sarisa Energy Pty Ltd
ACN: 077 536 871	IPV Coal Services Pty Ltd
	Tong ELP Australia
	Tong ELP Australia
	KOLMO ELP Pty Ltd
	Sarisa TOG Corp
	Sarisa OHT Pty Ltd

is required to carrying out a Level 2 chapter 5A activity(ies) as per Section 22 of the Environmental Protection Regulation 2008 on the relevant resource authorities listed below

Project Name	Resource Authority Type(s) and Number(s)
Northern Coastal Ridge	Authority for Proseal (ATP) 745

This environmental authority takes effect from: 17 April 2013

The anniversary date of this environmental authority is: 16 August

This environmental authority is subject to the attached schedule of conditions.

[Signature] *[Signature]*
Date

Steven Tait
Deputy of Assessing Authority
Department of Environment and Heritage Protection

*Fees and charges, including permits, submissions, professions, conditions or expenditure are as required by legislation administered by the Department of Environment and Heritage Protection

Department of Environment and Heritage Protection
www.dehp.qld.gov.au

Department of Environment and Resource Management

Terms of reference for the Arrow Energy Surat Gas Project Environmental Impact Statement (EIS)

Department of Environment, Energy, Water, Population and Communities

Toward Queensland Government

Australian Government
Department of Sustainability, Environment, Water, Population and Communities

Approval

To develop, construct, operate and decommission the Coal Seam Gas Field component of the Queensland Curtis LNG Project, including expansion of the GGC operated coal seam gas fields in the Surat Basin as described in referral EPSC 20084386.

This decision is made under sections 130(1) and 133 of the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

person to whom the approval is granted: Queensland Gas Company Ltd (QGC) and BCI International Limited (BCI)

proponent's ABN: ABN: 080 642 553 (QGC)
ABN: 72 114 816 825 (BCI)

proposed action: To develop, construct, operate and decommission the coal seam gas field component of the Queensland Curtis LNG Project, including expansion of the GGC operated coal seam gas fields in the Surat Basin. To supply gas for the Queensland Curtis LNG Project to the proposed Queensland Curtis LNG Plant located on Curtis Island

- as described in the proponent's referral received under the EPSC Act on 16 August 2008; and
- as described in the proponent's Environmental Impact Statement and Supplementary Environmental Impact Statement.

decision: To approve the proposed action for each of the following controlling provisions:

- Listed threatened species and communities (sections 18 and 19A, EPBC Act)
- Listed migratory species (sections 20 and 20A, EPBC Act)

conditions of approval: This approval is subject to the conditions specified below.

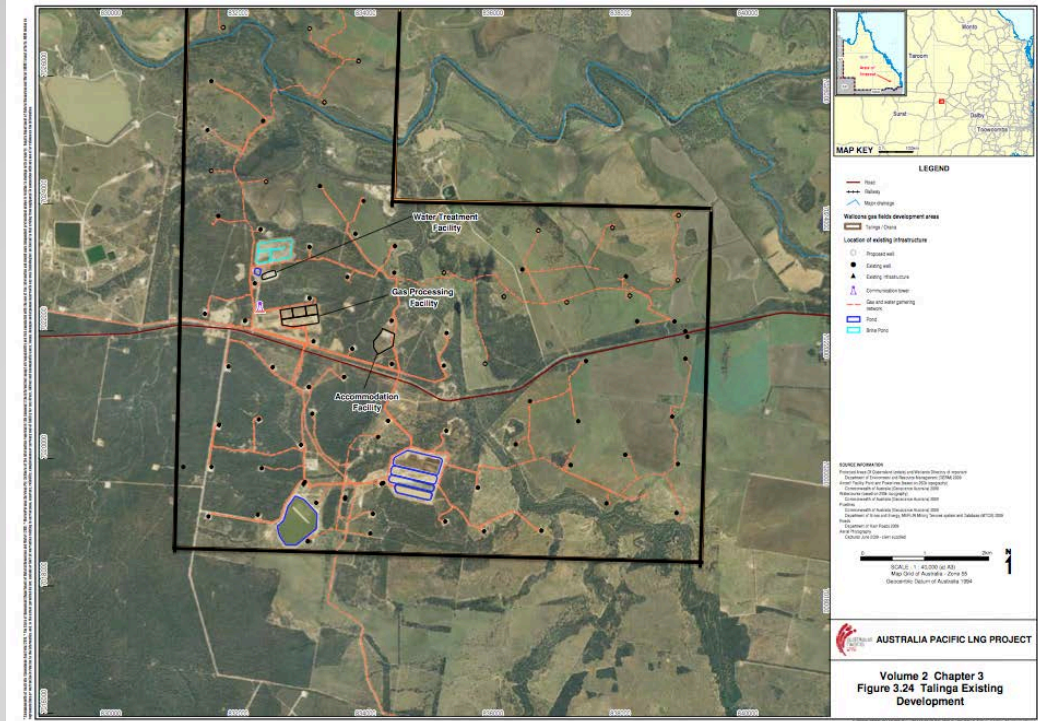
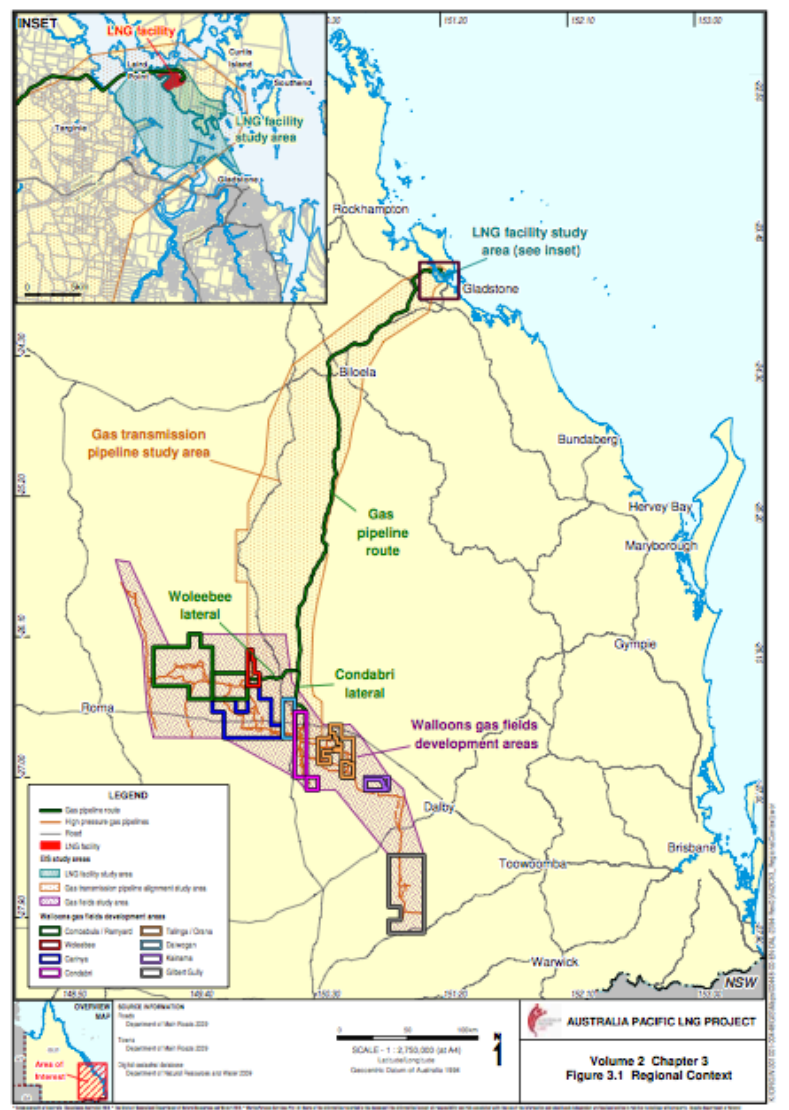
expiry date of approval: This approval has effect until 31 October 2060.

name and position: The Hon Tony Burke MP
Minister for Sustainability, Environment, Water, Population and Communities

signature: *[Signature]*

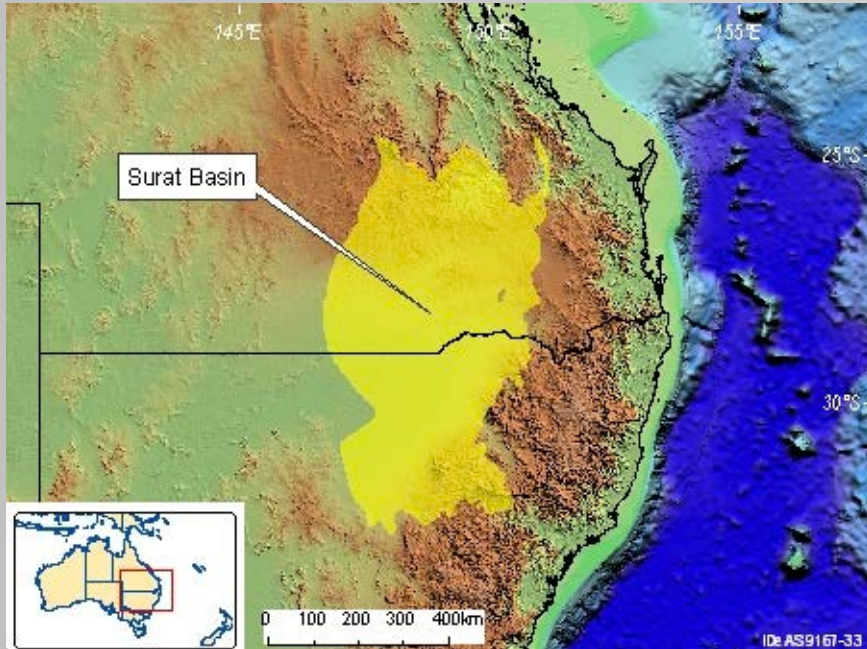
date of decision: 22, 10, 10

Coal Seam Gas to Liquefied Natural Gas



Source: Australia Pacific LNG Environmental Impact Study (available at www.aplng.com.au)

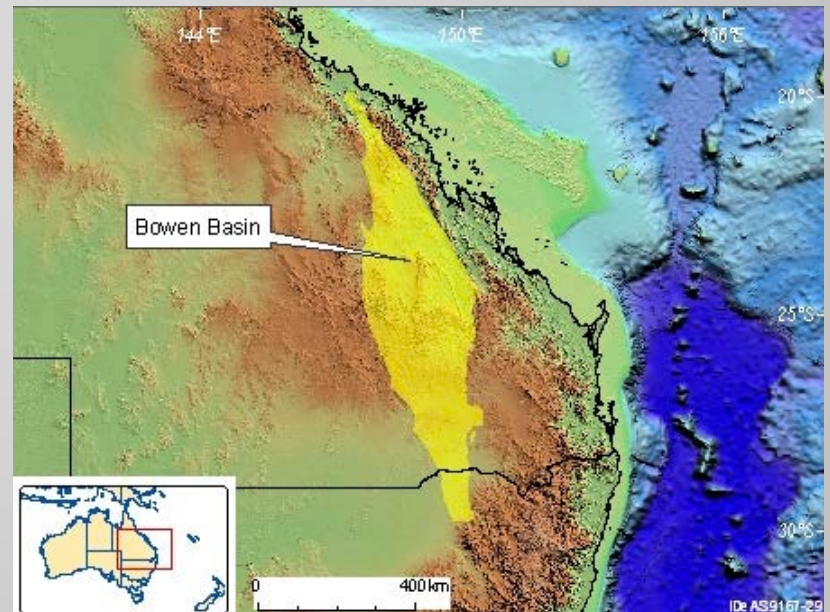
Where are the CSG Fields



As at 30 June 2012

- 8 companies exploring / producing
- Producing from Surat and Bowen basins only
- 1,256PJ (Bowen basin 65%)
- ~ 34,400ML of produced water

Arrow Energy
QGC
Bow Energy
Senex Energy
Westside Corporation
Molopo Energy
Origin Energy
Santos



Source: Queensland's Petroleum Exploration, Development and Potential 2011-12 Report

Primary (key) Approvals

- **Petroleum Authority**
 - *Petroleum and Gas Act 1923*
 - *Petroleum and Gas (Production and Safety) Act 2004*
- **Environmental Authority**
 - *Environmental Protection Act 1994*
- **Environmental Impact Statement**
 - *Environmental Protection Act 1994*
 - *State Development and Public Works Organisation Act 1971*
- **Cultural Heritage Management Plan**
 - *Aboriginal Cultural Heritage Act*
- **Controlled Action Decision**
 - *Environment Protection and Biodiversity Conservation Act 1999*
- **Section 31 Agreement / ILUA**
 - *Native Title Act 1993*

Petroleum Authority

- **Authority to prospect**
 - Allows for exploring and testing of CSG resources
 - Granted for up to 12 years
 - Requires partial relinquishment every 4 years
- **Petroleum lease**
 - Allows for exploring, testing, producing and storing of CSG resources
 - Granted for up to 30 years
- **Petroleum survey licence**
- **Petroleum pipeline licence**
- **Petroleum facility licence**
- **Data acquisition authority**
- **Water monitoring authority**

- Land access
- Before any of these can be issued an environmental authority must be obtained / native title addressed



Queensland

Petroleum Act 1923

Current as at 27 September 2013



Queensland

**Petroleum and Gas
(Production and Safety) Act
2004**

Current as at 27 September 2013

Environmental Authority

- **Standard**
 - Eligibility criteria
 - Conditions
- **Variation**
 - Eligibility criteria
 - Change conditions
- **Site specific**
 - Fail eligibility criteria
- **Amendments**
 - Minor
 - Major
- **Infrastructure on strategic cropping land**

Eligibility criteria established for exploration, survey and pipeline activities

Department of Environment and Heritage Protection

Eligibility criteria and standard conditions

Petroleum pipeline activities

This document provides eligibility criteria and standard conditions for petroleum pipeline activities. Eligibility criteria are to be used for making a standard or variation application for an environmental authority. Standard conditions are to be used in an environmental authority (standard or variation application) or where necessary and desirable on an environmental authority (site specific application).

Eligibility criteria

Eligibility criteria are constraints set to ensure environmental risks associated with the operation of the environmentally relevant activity (ERA) are able to be managed by the standard conditions.

Standard conditions

Schedule A – Authorised activities

Conditions in Schedule A apply in addition to those in all other schedules. The purpose of Schedule A is to outline that while certain activities are authorised under the *Petroleum and Gas (Production and Safety) Act 2004*, a number of activities are not authorised or are otherwise restricted under the standard conditions in Schedule A (i.e. the 'PPSCA' conditions). This is because the process followed for a standard application does not require a formal assessment by the administering authority.

Schedule B – Protecting environmental values

Conditions in Schedule B apply in addition to those in all other schedules. The purpose of the conditions in Schedule B is to outline the environmental values to be protected or enhanced to minimise environmental harm resulting from the petroleum activities. Negative impacts to these environmental values beyond the authorisations in the standard conditions in Schedule B (i.e. the 'PPSCB' conditions) are considered unlawful environmental harm.

Department of Environment and Heritage Protection

Eligibility criteria and standard conditions

Petroleum exploration activities

This document provides eligibility criteria and standard conditions for petroleum exploration activities. Eligibility criteria are to be used for making a standard or variation application for an environmental authority. Standard conditions are to be used in an environmental authority (standard or variation application) or where necessary and desirable on an environmental authority (site specific application).

Eligibility criteria

Eligibility criteria are constraints set to ensure environmental risks associated with the operation of the environmentally relevant activity (ERA) are able to be managed by the standard conditions.

Standard conditions

Schedule A – Authorised activities

The purpose of Schedule A is to outline that while certain activities are authorised under the *Petroleum and Gas (Production and Safety) Act 2004* and the *Petroleum Act 1923*, a number of activities are not authorised or are otherwise restricted under the standard conditions in Schedule A (i.e. the 'PESCA' conditions). This is because the process followed for a standard application does not require a formal assessment by the administering authority.

Schedule B – Protecting environmental values

The purpose of the conditions in Schedule B is to outline the environmental values to be protected or enhanced to minimise environmental harm resulting from the petroleum activities. Negative impacts to these environmental values beyond the authorisations in the standard conditions in Schedule B (i.e. the 'PESCB' conditions) are considered unlawful environmental harm.

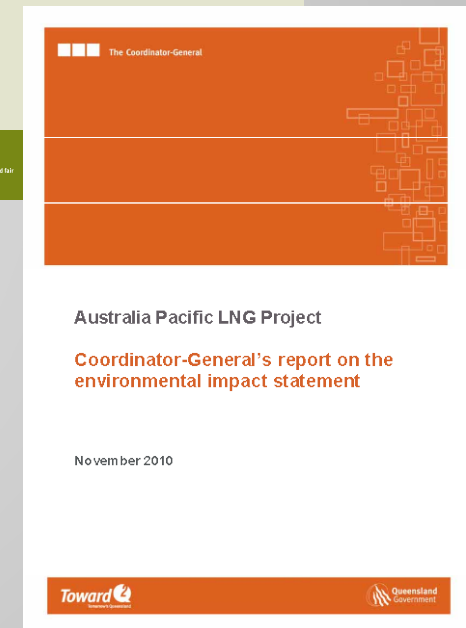
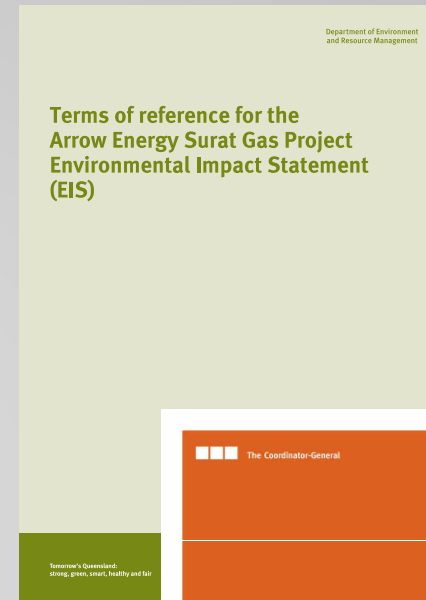
Environmental Impact Statement

Initiated 3 ways

- Voluntarily
 - *SDPWO Act 1971*
 - *EP Act 1994*
- Mandatory
 - *EP Act 1994*


Mandatory EIS triggers for CSG Projects

- >2,000ha of open disturbance at any single time
- high pressure pipeline >300km length
- liquefied natural gas plant



Controlled Action


- Project is likely to have a significant impact on a matter of national environmental significance (MNES)
 - World heritage properties
 - National heritage place
 - Wetlands of international importance
 - Listed threatened species and ecological communities
 - Migratory species
 - Commonwealth marine areas
 - Great Barrier Reef Marine Park
 - Nuclear actions
 - Water resource
- Not mandatory to refer project to Federal Government
 - Self assessment guidelines – Significant Impact
 - CSG projects - water resource is now a MNES
- Addition / delisting of MNES post approval grant
 - Brigalow Scaly-Foot
 - Acacia wardelli
 - Koala
 - etc

 Australian Government
Department of Sustainability, Environment, Water, Population and Communities

Approval

To develop, construct, operate and decommission the Coal Seam Gas Field component of the Queensland Curtis LNG Project, including expansion of the QGC operated coal seam gas fields in the Surat Basin as described in referral EPBC 2008/4398.

This decision is made under sections 130(1) and 133 of the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

person to whom the approval is granted	Queensland Gas Company Ltd (QGC) and BG International Limited (BG)
proponent's ABN	ABN: 089 642 553 (QGC) ABN: 72 114 818 825 (BG)
proposed action	To develop, construct, operate and decommission the coal seam gas field component of the Queensland Curtis LNG Project, including expansion of the QGC operated coal seam gas fields in the Surat Basin, to supply gas for the Queensland Curtis LNG Project to the proposed Queensland Curtis LNG Plant located on Curtis Island: <ul style="list-style-type: none">• as described in the proponent's referral received under the EPBC Act on 18 August 2008; and• as described in the proponent's Environmental Impact Statement and Supplementary Environmental Impact Statement.
decision	To approve the proposed action for each of the following controlling provisions: <ul style="list-style-type: none">• Listed threatened species and communities (sections 18 and 18A, EPBC Act)• Listed migratory species (sections 20 and 20A, EPBC Act)
conditions of approval	This approval is subject to the conditions specified below.
expiry date of approval	This approval has effect until 31 October 2010.
name and position	The Hon Tony Burke MP Minister for Sustainability, Environment, Water, Population and Communities
signature	
date of decision	22, 10.10

1

Secondary Approvals

- *Forestry Act 1959*
- *Sustainable Planning Act 2009*
- *Strategic Cropping Land Act 2011*
- *Waste Reduction and Recycling Act 2011*
- *Water Act 2000*
- *Nature Conservation Act 1992*
- *Water Supply (Safety and Reliability) Act 2008*
- *Civil Aviation Act 1998*
- *Transport Infrastructure Act 1994*
- *Queensland Heritage Act 1992*
- *Electricity Act 1994*
- *Land Protection (Pest and Stock Route Management) Act 2002*
- *Fisheries Act 1994*
- *Vegetation Management Act 1999*
- *Explosives Act 1999*
- *Explosives Act 1999*
- *Land Act 1994*
- *Council local Laws*
- *Plus others*

Strategic Cropping Land Act 2011

Compliance Certificate (121,73)

- Standard Conditions Code
 - Part 1- Activities already authorised under EA but require location change
 - Part 2 – New activities with exclusion list
 - Part 3 – New activities with exclusion list of activities

Protection Decision (51,44)

- Where cannot meet the code

Validation Decision (65)

- Where land is mapped as SCL but doesn't meet the criteria



Land assessment under the Strategic Cropping Land Act 2011 is required to validate this land as SCL or non-SCL.



Sustainable Planning Act 2009 / Fisheries Act 1994


- Schedule 3 of the SP Regulation outlines assessable development
 - Operational works (waterway barriers) unless can meet a self assessable code
- S704 of *Fisheries Regulation 2008* outlines the applicable self assessable codes
 - Temporary waterway barriers
 - Minor waterway barriers
 - Regularly constructed waterway barriers
- Early 2013 DAFF released “Guide for the Determination of waterways using the spatial data layer Queensland waterways for waterway barrier works”

Forestry Act 1954

- Occupation permits
- Permit to traverse
- Sales Permit
 - S45 / 45A provide that Crown owns all quarry material unless exempted under these sections
 - Crown land
 - Trust land
 - EHP Compliance Plan 2011
 - the education of CSG operators (and their contractors) on the requirement to hold a sales permit issued under the *Forestry Act 1959* to get and use State owned quarry material

Waste Reduction and Recycling Act 2011

- CSG Water Beneficial Use Approvals
 - General BUA
 - Irrigation / domestic
 - Livestock drinking
 - Drinking water
 - Aquaculture
 - Dust suppression
 - Landscaping / revegetation
 - Specific BUA
 - Cannot meet the conditions of the General BUA



Notice

Environmental Protection Act

Decision to approve a resource for beneficial use – Associated water

This statutory notice is issued by the administering authority pursuant to section 600 of the Environmental Protection (Water Management) Regulation 2000.

CONDITIONS OF APPROVAL

Approval is a general approval

- 1) This approval is issued as a general approval for the stated type of resource in Condition 3, of which everyone has the benefit for the stated type of resource and user(s).
- 2) Approval limited to stated type of resource

This approval only applies where there is an agreed user

- 3) This approval applies to the resource identified as associated water resulting from the carrying out of an authorised activity under the petroleum legislation and the *Environmental Protection Act 1994* (EP Act).

Approval limited to stated type of use


- 4) This approval authorises only the use of the stated type of resource that meets the water quality criteria for the stated type of use prescribed in Table 1, subject to the conditions of this approval and any other approval required under the EP Act, the petroleum legislation and the *Water Act 2000*. Where the resource is used for more than one stated use, it must comply with all water quality criteria prescribed for those uses.

Table 1: Water quality criteria for stated types of uses

Stated types of uses	Water quality criteria
Irrigation and general use (i.e. for domestic purposes)	<i>Australian and New Zealand Guidelines for Fresh and Marine Water Quality</i> (ANZECC and ARMCANZ 2000) Volume 1: Chapter 4.2 and Volume 3: Chapter 9.2.
Livestock drinking water	<i>Australian and New Zealand Guidelines for Fresh and Marine Water Quality</i> (ANZECC and ARMCANZ 2000) Volume 1: Chapter 4.3 and Volume 3: Chapter 9.3.
Aquaculture and human consumption of aquatic foods	<i>Australian and New Zealand Guidelines for Fresh and Marine Water Quality</i> (ANZECC and ARMCANZ 2000) Volume 1: Chapter 4.4 and Volume 3: Chapter 9.4.
Drinking water	<i>Australian Drinking Water Guidelines</i> (NHMRC and ARMCANZ 1996).

Page 1 of 6 - 081223

Environmental Protection Agency
www.epa.qld.gov.au AEN 27 221 151 766



Summary

- Brief outline of approvals relevant to CSG fields
- The better defined a project / scope of work is an approvals pathway for key and secondary approvals can be determined
- Approval triggers are seemingly always under review – it is a challenge to stay on top.

Thank You



Contact details

Mobile - 0435 149 754

E-mail - scott.dale@draasconsultants.com.au