

2

PROJECT APPROVALS

[ENTER HERE](#) 

[BACK TO CONTENTS](#) 



2 Project Approvals

This chapter outlines the Project approvals required for construction, operation and decommissioning of the Project beneath various pieces of Queensland legislation. The chapter includes the EIS as a mechanism to assist in securing the required approvals beneath the *Environmental Protection Act 1994* (EP Act) and the *Petroleum and Gas (Production and Safety) Act 2004* (P&G Act) and refers to the relevant planning schemes, policies and regional plans that apply to the Project.

The Project is being assessed as a petroleum activity under the P&G Act, with the primary approvals required including:

- Petroleum lease (PL);
- Petroleum pipeline licence (PPL) (if required);
- Petroleum survey licence (PSL) (if required); and
- Environmental authority (EA).

A voluntary EIS has been prepared to assess the potential impacts, environmental issues and legislative requirements that need to be investigated and addressed as outlined within the ToR for the Project. A cross reference to the locations where each of the requirements of the ToR has been addressed is given in Appendix B which references both the study chapters (Sections 1 through 34) and/or Appendices (A through EE).

An assessment of the Project's compatibility with the planning instruments under the *Sustainable Planning Act 2009* (SP Act) has also been undertaken as required by the ToR. The assessment of Project compatibility with the SP Act is detailed within the Landuse and Tenure Technical Report (Appendix Q, Section 2) of this EIS.

2.1 EIS Process

Arrow has prepared this voluntary EIS to address the objectives outlined in the Introduction chapter (Section 1.5.1) of this EIS and to provide information to evaluate applications, such as the EA application for the Project. The process adopted for the preparation of this EIS is described in the Introduction chapter (Section 1) of this EIS. The need for the EIS and the role it plays in the assessment of future applications is described in the following sections of this chapter.

2.1.1 Need for an EIS

Arrow lodged an application to prepare a voluntary EIS with EHP on 20 April 2012. An initial advice statement (IAS) describing the Project was submitted with the application. The Chief Executive accepted Arrow's application following consideration of the IAS.

On 9 May 2012, Arrow also referred the Project to the Australian Government under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The EPBC Act provides for the protection of the environment, especially in matters of national environmental significance (MNES). Under the EPBC Act, actions likely to have a significant impact on a MNES trigger an Australian Government assessment and approvals. MNES include listed threatened species and communities. Sufficient information was ascertained as part of early environmental investigations to suggest that the Project may potentially impact on threatened species and communities listed in MNES.

Section 2 Project Approvals

On 15 June 2012, the Australian Government declared the Project a controlled action due to its potential to significantly affect listed threatened species and ecological communities and listed migratory species under the EPBC Act. The Australian Government Minister for Sustainability, Environment, Water, Population and Communities requires project approval due to the controlled action status.

Under a Bilateral Agreement between the Australian Government and the State of Queensland, the Australian Government has accredited the EP Act process for the purpose of assessment. Pursuant to this agreement, the Project EIS will be coordinated by EHP. Relevant Commonwealth, Queensland and local government authorities have been invited to participate in the EIS process as advisory agencies. The environmental impact assessment process is shown in Figure 2-1.

The ToR for the EIS establishes the potential impacts, environmental issues and requirements that need to be investigated and addressed within the EIS. The process begins with the Chief Executive preparing a draft ToR based on the Project-specific information provided in the IAS. The ToR is then released for public comment. The application of the EIS process to the Project is further detailed within the Introduction chapter (Section 1.5) of this EIS.

2.1.2 Project Approvals and Conditions

Upon receiving the EIS assessment report and EPBC Act approval, Arrow will lodge an application for an EA for the Project. An EIS approval does not give Arrow approval to commence any Project-related construction activities.

Arrow will require an EA under the EP Act to commence the Project's construction and operation on a PL. Arrow may apply for an EA or amend an existing EA. An EA will set out the detailed conditions under which a Project must be constructed and operated within a PL. Detailed information is required to enable an EA application to be assessed by EHP and is typically presented in an EM Plan, or similar document prepared as part of the EIS or as part of the EA application. This detail covers the location of significant Project infrastructure (such as compressor stations) and the impacts of construction and operation.

If sufficiently detailed information has not been provided in the EIS or in the draft EM Plan, it must accompany the EA application and EM Plan. The EM Plan prepared to support an EA application will include detailed information about the location of facilities, the site specific impacts of construction and operation, environmental management measures and suggested conditions of approval as well as any significant changes to the Project since completion of the EIS. If the Project is deemed to have significantly changed from the EIS stage to the EA stage, that is, the environmental risks of the activity and/or the way the activity is carried out have changed, then under the EP Act an application for an EA will be published and public comment invited. If EHP deem that the EA proposes a change that would be likely to attract a submission from the public, EHP would then consider any submissions in assessing the application in determining the conditions that apply.

Each EA application and subsequent related PL application will generally include (but not be limited to) the following typical details:

- Facility locations, and technology selections, including:

Section 2 Project Approvals

- Compressor stations;
 - Water treatment facilities and dams; and
 - Power generation or distribution infrastructure.
- Any proposed beneficial use of water, and/or discharge to a watercourse;
 - Camps and accommodation;
 - Borrow pits;
 - Chemical and fuel storage; and
 - Waste disposal.

The Chief Executive of EHP will consider the state EIS assessment report, Arrow's EA application and the Environmental Management Plan (EM Plan) when making a decision whether to grant the EA for the nominated activities.

The NRM will be notified that the EA has been issued and the Minister will decide if a PL and a PPL should be issued under the P&G Act.

A proponent must have an approved EA before a PL can be granted by the NRM. An initial development plan, which typically covers the first five years of development, must be submitted with the application. The initial development plan contains detailed information, such as that listed above, about the nature and extent of activities to be carried out under the lease or licence. Subsequent development plans are required and provide detailed information about subsequent development and changes to authorised development.

Arrow proposes to stage the applications for PLs and their associated EA (or EA amendment) throughout the development of the Project, as additional PLs are required to support development. This staged process will mean that the development concept has matured and additional information on the development will be available (for example, locations of major infrastructure such as integrated production facilities) when these applications are made. Final well locations and final gas and water gathering lines locations will be determined with landholders as part of negotiating conduct and compensation agreements. However all final locations will also need to comply with all relevant approval conditions.

In addition to the EIS, various other statutory approvals will be required for the Project as detailed in the following sections of this chapter, illustrated on Figure 2-2 and further detailed within the Land Use and Tenure Technical Report (Appendix Q) of this EIS.

Section 2 Project Approvals

2.1.3 Overview Environmental Framework

Unlike conventional gas resources, CSG resources are extensive, requiring widespread development to recover the resource over the life of the Project, which is expected to be 40 years. The yield from target coal seams is variable across the resource, leading to uncertainty about the number, timing and location of wells required to dewater the coal seams and extract the gas. Prior to considering environmental and social constraints, selection of the ideal location of infrastructure required to treat the CSG water and process the gas is also uncertain, being driven by exploration results and optimisation of well placement and water and gas gathering systems.

This lack of certainty about the preferred location of infrastructure is an issue for environmental impact assessment, because the impacts at a specific location cannot be fully understood, scoped and assessed at the planning phase. However, they can be described based on the typical impacts inherent to individual Project activities.

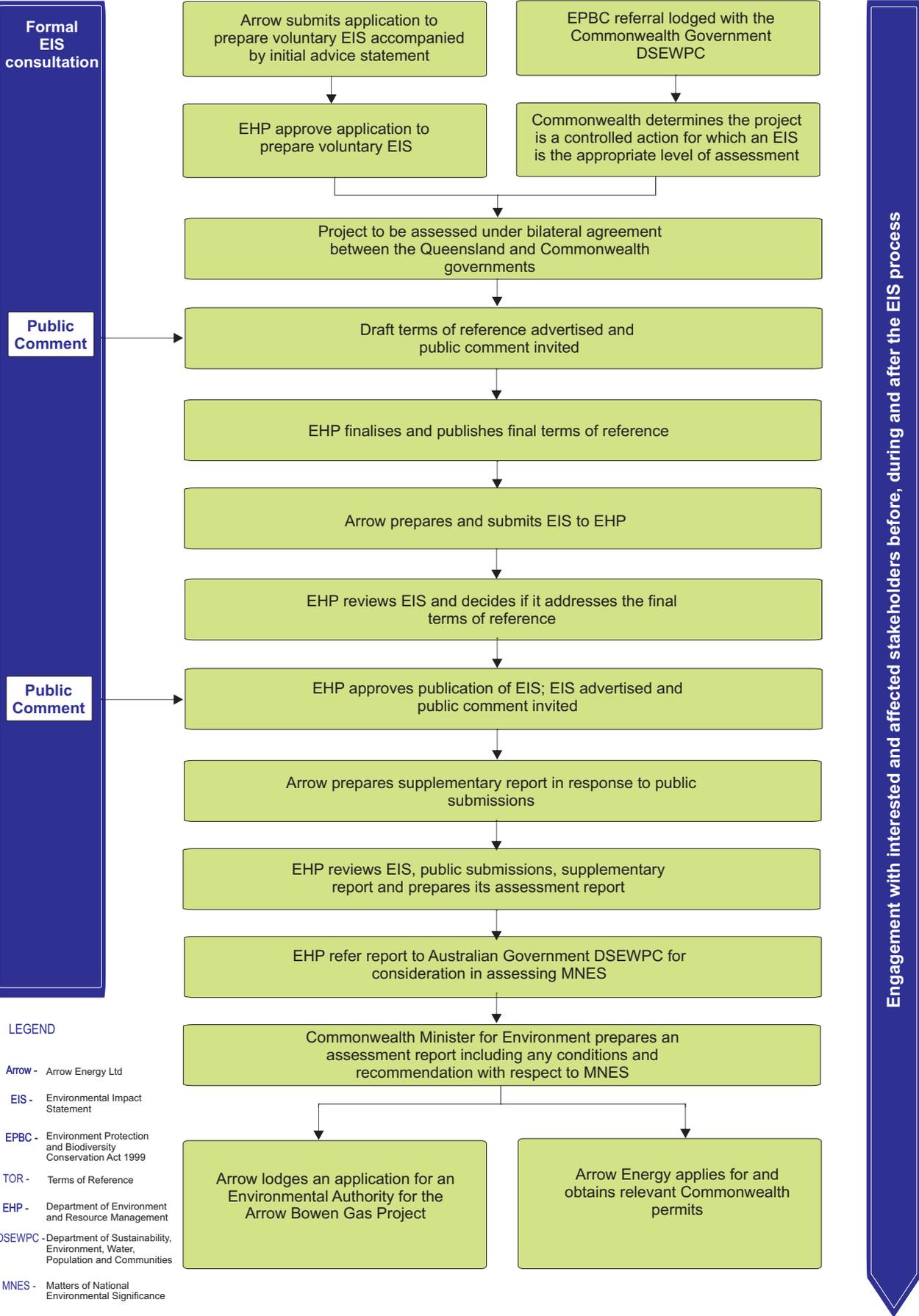
To overcome uncertainty inherent to the planning of CSG projects, Arrow has developed the Environmental Framework for the Project, to identify impacts in the planning phase and manage the potential impacts in the construction and operation phases.

This is achieved through the application of environmental controls that reflect the sensitivity or vulnerability of environmental values of each development area and identifies development which is not appropriate for the area. This is achieved through the identification of constraints to development and the establishment of environmental management controls required to facilitate Project activities in constrained areas.

Constraints mapping is an integral part of the Environmental Framework and is informed by the environmental impact assessment process undertaken in this EIS. Constraints mapping guides site and route selection that seeks to avoid and minimise impacts, thereby protecting environmental values of each development area.

The assessment process developed for the Environmental Framework facilitates approval of the Project and reflects the phased approach to development required for a project of this nature. It progressively incorporates more detailed information to inform EA applications subsequent to the EIS, when details such as exact locations are established for specific facilities.

Further details on the Environmental Framework are contained within Environmental Framework chapter (Section 7) of this EIS.



Public Comment

Public Comment

Engagement with interested and affected stakeholders before, during and after the EIS process

Ongoing stakeholder consultation

LEGEND

- Arrow - Arrow Energy Ltd
- EIS - Environmental Impact Statement
- EPBC - Environment Protection and Biodiversity Conservation Act 1999
- TOR - Terms of Reference
- EHP - Department of Environment and Resource Management
- DSEWPC - Department of Sustainability, Environment, Water, Population and Communities
- MNES - Matters of National Environmental Significance

This drawing is subject to COPYRIGHT.

Source: This product may contain information that is © Mapinfo Australia Pty Ltd and PSMA Australia Ltd., © Copyright Commonwealth of Australia (Geoscience Australia) 2006, © Copyright The State of Queensland (Department of Natural Resources and Water) 2008, © The State of Queensland (Department of Mines and Energy) 2006-2008, © The State of Queensland (Department of Environment and Resource Management) 2010, Bing Maps © Microsoft Corporation and its data suppliers, Images from Client Feb 2012. Whilst every care is taken by URS to ensure the accuracy of the digital data, URS makes no representation or warranties about its accuracy, reliability, completeness, suitability for any particular purpose and disclaims all responsibility and liability (including without limitation, liability in negligence) for any expenses, losses, damages (including indirect or consequential damage) and costs which may be incurred as a result of data being inaccurate in any way for any reason. Electronic files are provided for information only. The data in these files is not controlled or subject to automatic updates for users outside of URS.



BOWEN GAS PROJECT EIS

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS



PROJECT APPROVALS

Figure: 2-1

File No: 42626960-g-1091.cdr

Drawn: MH

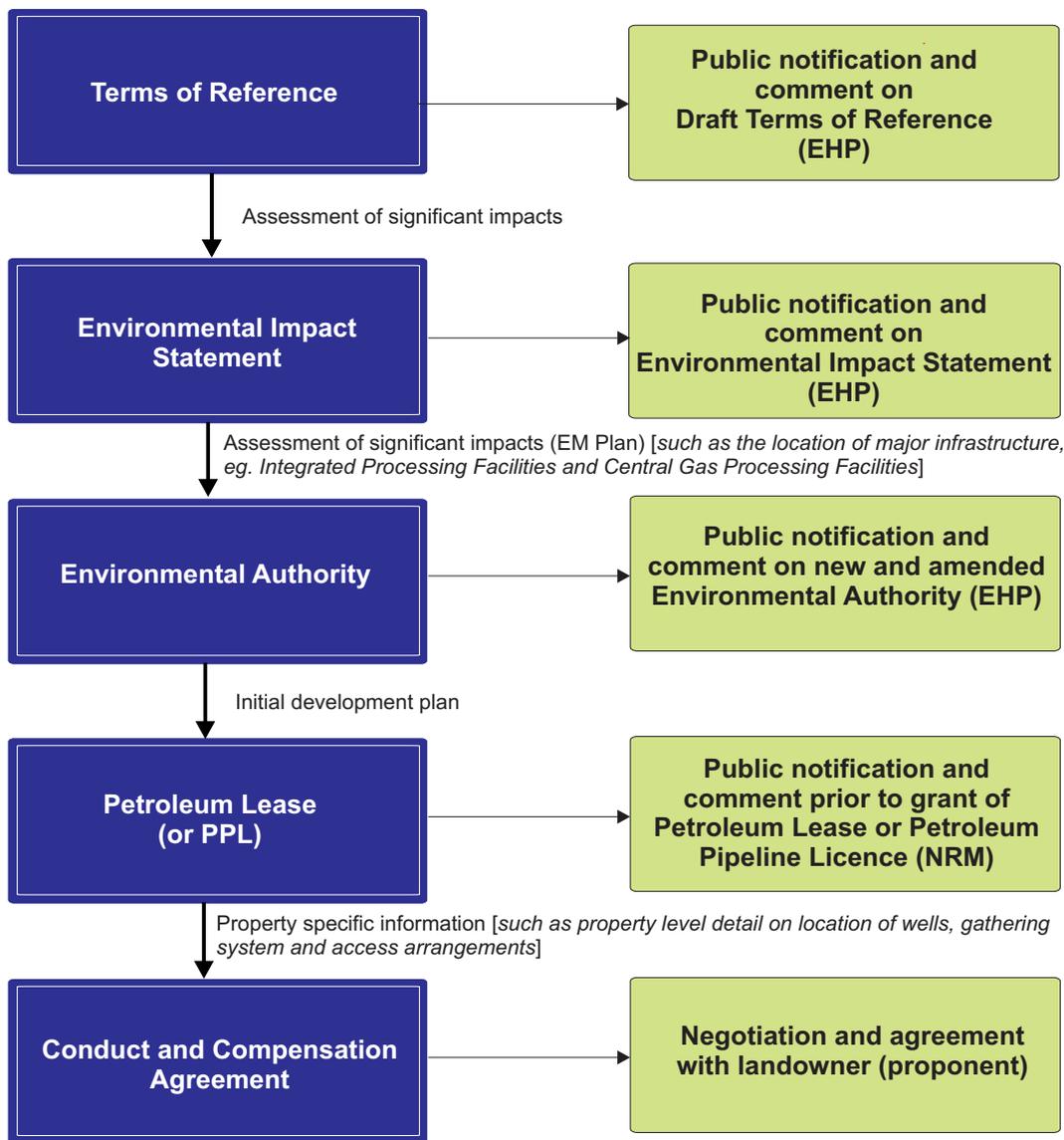
Approved: DS

Date: 18-10-2012

Rev. A

A4





This drawing is subject to COPYRIGHT.

Source: This product may contain information that is © Mapinfo Australia Pty Ltd and PSMA Australia Ltd., © Copyright Commonwealth of Australia (Geoscience Australia) 2006, © Copyright The State of Queensland (Department of Natural Resources and Water) 2008, © The State of Queensland (Department of Mines and Energy) 2006-2008, © The State of Queensland (Department of Environment and Resource Management) 2010, Bing Maps © Microsoft Corporation and its data suppliers, Images from Client Feb 2012. Whilst every care is taken by URS to ensure the accuracy of the digital data, URS makes no representation or warranties about its accuracy, reliability, completeness, suitability for any particular purpose and disclaims all responsibility and liability (including without limitation, liability in negligence) for any expenses, losses, damages (including indirect or consequential damage) and costs which may be incurred as a result of data being inaccurate in any way for any reason. Electronic files are provided for information only. The data in these files is not controlled or subject to automatic updates for users outside of URS.



BOWEN GAS PROJECT EIS

APPROVALS PROCESS OF PETROLEUM ACTIVITIES



PROJECT APPROVALS

Figure: 2-2



File No:42626960-g-1150.cdr

Drawn: MH

Approved: DS

Date: 18-10-2012

Rev.A

A4

Section 2 Project Approvals

2.2 Environmental Authority

The Project will contain a number of petroleum tenures and Arrow proposes to stage the applications for PLs and their associated EA (or EA amendment to a Project EA) throughout the development of the Project, as additional PLs are required to support development. This staged process will mean that the development concept has matured from the original reference case and additional information on the development will be available (for example, locations of major infrastructure such as integrated production facilities) when these applications are made.

In the case of a PPL (if required), an application for a specific EA will be made. An EA must be issued before a PL can be granted. For the Project, receipt of an EA will require the approval of the voluntary EIS and an EM Plan.

Under the EP Act, petroleum activities are classified as either level 1 or level 2 chapter 5A activities for which an EA is required. The Project (with the exception of the EA to support a PSL) requires a level 1 chapter 5A EA for petroleum activities to provide for the proposed infrastructure along with other environmentally relevant activities (ERAs) associated with the Project as outlined in Table 2-1. Arrow will submit both level 1 and level 2 EA applications in accordance with the EP Act, which requires level 1 EA applications to include an EM Plan.

Table 2-1 Level 1 Petroleum Activities

Petroleum Activity	Description	Applicable Project Activities
Level 1 chapter 5A activity	Relates to a petroleum activity that is likely to have a significant impact on a category A or B environmentally sensitive area.	Petroleum activities
Level 1 chapter 5A activity	A petroleum activity carried out on a site containing a high hazard dam or significant hazard dam	Petroleum activities

2.2.1 Environmentally Relevant Activities

Table 2-2 details the potential ERAs that will be applicable to the Project. Final Project design and field development plans have yet to be completed and it is possible that not all of the ERAs in Table 2-2 will be applicable to the Project and conversely, that additional ERAs may be required.

Table 2-2 Environmentally Relevant Activities

ERAs	Description	Applicable Project Activities
ERA 8 – chemical storage	10 m ³ or more of chemicals of class C1 or C2 combustible liquids under AS 1940 or dangerous goods class 3.	Storage of chemicals used for CSG water treatment.
ERA 14 – electricity generation	Electricity generation (the relevant activity) consists of generating electricity by using gas at a rated capacity of 10 megawatt (MW) electrical or more.	Power generation to supply gas compression and water treatment facilities.

Section 2 Project Approvals

ERAs	Description	Applicable Project Activities
ERA 15 – fuel burning	Fuel burning (the relevant activity) consists of using fuel-burning equipment that is capable of burning at least 500 kg of fuel in an hour.	Flaring of gas at gas production facilities.
ERA 56 – regulated waste storage	Regulated waste storage (the relevant activity) consists of operating a facility for receiving and storing regulated waste for more than 24 hours.	Storage of regulated waste prior to treatment (regarding CSG water).
ERA 58 – regulated waste treatment	Regulated waste treatment (the relevant activity) consists of operating a facility for receiving and treating regulated waste or contaminated soil to render the waste or soil non-hazardous or less hazardous.	Temporary storage of brine from CSG water treatment process.
ERA 43 – concrete batching	Concrete batching (the relevant activity) consists of producing 200 t or more of concrete or concrete products in a year, by mixing cement with sand, rock, aggregate or other similar materials.	May be required if concrete for facility construction is produced at a batching plant.
ERA 60 – waste disposal	Operating a facility for disposing of regulated waste; more than 200,000 t.	Temporary storage of brine from CSG water treatment process.
ERA 63 – sewage treatment	Operating 1 or more sewage treatment works at a site that has a total daily peak design capacity of more than 21 equivalent persons.	Sewerage facilities at construction camp sites and/or production facility sites.
ERA 64 – water treatment	Water treatment (the relevant activity) consists of carrying out any of the following activities in a way that allows waste, whether treated or untreated, to be released into the environment: Desalinating 0.5 ML or more of water in a day. Treating 10 ML or more of raw water in a day. Carrying out advanced treatment of 5 ML or more of water in a day.	CSG water treatment process.

2.2.2 Draft Environmental Management Plan

A draft EM Plan for the Project has been developed to address the ToR and is included within Appendix Z of this EIS. The draft EM Plan has been developed in accordance with Section 310D of the EP Act and proposes environmental protection commitments to assist the administering authority to develop the conditions of the EA. The draft EM Plan identifies and describes the environmental values that will be impacted by project activities and meets the content requirements of the EP Act, covering:

- The environmental management system for the Project;
- The description of the whole of Project activities; and
- The environmental values, impacts and management strategies; and the decommissioning and rehabilitation of the Project.

Section 2 Project Approvals

2.3 Petroleum Approvals

2.3.1 Authority to Prospect

Arrow holds various authorities to prospect (ATPs) and authority to prospect applications (ATPAs) within the Project area, which must be converted to PLs in order to undertake the Project. These include ATPs 1103, 759, 1025, 1031 and ATPAs 742 and 749. Arrow will continue to progress petroleum tenure applications for land within the Project area as required.

An ATP is a petroleum tenement under the P&G Act. This type of tenure allows the holder to undertake gas exploration activities (such as geological and geophysical surveys), chemical or other analyses and environmental, engineering and design studies to evaluate the development potential of the CSG. The P&G Act allows the prospect holder to carry out incidental activities where they are reasonably necessary for, or incidental to, the authorised activity (petroleum exploration). These include (by example only) construction of roads, water pipelines, temporary camps and powerlines.

Detailed information about the nature of activities to be undertaken must be set out in a work program. If an ATP is to be granted over land where Native Title has not been extinguished, the prospect holder must also satisfy the requirements of the *Native Title Act 1993* (NT Act) before the government grants the authority.

Arrow holds existing ATPs and ATPAs over the Project area and the activities being carried out under these tenures are not included within the scope of this impact assessment.

2.3.2 Petroleum Pipeline Licence (PPL)

The Project requires a PPL under the P&G Act for the construction and operation of any pipelines required to transport CSG outside the area of a PL. The licence also allows for 'incidental activities' related to pipeline construction and operation, for example, pipeline compressor stations, valve / scraper stations, road works, mobile and temporary camps and materials storage located within the licence area.

A PPL may be required to connect the proposed Arrow facilities to existing or proposed sales gas delivery pipelines.

2.3.3 Petroleum Survey Licence (PSL)

The Project may require a PSL under the P&G Act. A survey licence would provide for access to land to investigate, survey and identify a pipeline route associated with a PPL.

2.3.4 Petroleum Lease

The Project requires PLs under the P&G Act before the sale of gas can commence. Arrow proposes to stage the applications for PLs throughout the development of Project, as additional petroleum leases are required to support development.

A PL authorises the lease holder to conduct activities for the exploration and production of CSG within the lease area. Key activities include the installation of production wells, gathering lines, pipelines and

Section 2 Project Approvals

facilities to extract, transport and process CSG. A PL also authorises activities required to manage the water produced as a result of CSG production (associated water) such as the construction and operation of dams, pipelines and treatment facilities (see also Section 2.5, Relevant Policies and Guidelines, in relation to management of associated water).

As part of the application for a PL, Arrow is required to prepare an initial development plan. The initial development plan provides NRM with information about the nature and extent of activities. Arrow will submit initial and revised development plans to the NRM as required under the Act.

In accordance with the Schedule 4, Table 5 of the *Sustainable Planning Regulation 2009*, an activity authorised under the P&G Act and subject to a petroleum lease is exempt assessment from planning instruments regulated under the SP Act. However, any activity occurring off tenure (e.g. depots) will require development approvals under the relevant planning scheme and therefore require assessment under the SP Act and relevant planning instruments.

2.4 Additional Key Permits and Approvals

In addition to the principal project approvals, other permits and approvals will need to be obtained before certain aspects of the Project can proceed. These will include, but are not limited to the permits and approvals described below. Additional detailed discussion of the legislation, policies, guidelines and the planning framework that seeks to protect and regulate land uses within Queensland is provided in the Landuse and Tenure Technical Report (Appendix Q) of this EIS.

2.4.1 Native Title Agreements

Administered by the NRM, the NT Act provides for the recognition and protection of Native Title. If a petroleum tenement is to be granted over land where Native Title has not been extinguished, NT Act requirements must be met before the petroleum tenement can be granted.

In respect of a proponent who may wish to secure an interest (lease, licence, title or the like) in land over which Native Title may exist, the NT Act provides valid statutory processes to allow the parties to reach agreement and for state and territory governments to grant interests over that land. This matter will need to be considered in light of whether Arrow plans to conduct any petroleum activities on land where Native Title may exist. If so, agreements may need to be reached with relevant Aboriginal groups.

2.4.2 Cultural Heritage Management Plan

A Cultural Heritage Management Plan (CHMP) will need to be developed and approved in accordance with the *Aboriginal Cultural Heritage Act 2003* (Qld). The Act binds all persons to meet duty of care provisions and to take all reasonable and practical measures to avoid harming cultural heritage. As such, to comply with the Act, either a CHMP or a Native Title agreement or other agreement that addresses cultural heritage will be necessary to meet the intent of the duty of care provisions for the Project. The Act also provides an exemption from the requirement of a CHMP where the Project is the subject of either an existing agreement or a Native Title agreement (unless Aboriginal Cultural

Section 2 Project Approvals

Heritage is expressly excluded from being subject to the agreement). Further details are provided in the Indigenous Cultural Heritage chapter (Section 25) of this EIS.

2.4.3 Approval to Interfere with a Railway or State Controlled Road

The *Transport Infrastructure Act 1994* provides a regime that allows for, and encourages effective integrated planning and efficient management of a system of transport infrastructure. Arrow will be required to obtain approval should it be expected that Project activities would interfere with railway lines or state-controlled roads.

2.4.4 Uses for Associated Water

Associated water produced during the Project is regarded as waste under the EP Act and must be disposed of under the conditions of an EA, unless the water is provided for a beneficial use.

2.4.4.1 Beneficial Use

Under the EP Act and *Environmental Protection (Waste Management) Regulation 2000* (EP (Waste Management) Regulation), the definition for waste excludes a resource that has been approved for beneficial use. Arrow will be required to obtain either a beneficial use approval or an EA that specifically provides for the use of the CSG water for beneficial use(s). There are a number of options of beneficial use, which all have differing minimum standards, including:

- Aquaculture and human consumption of aquatic foods;
- Coal washing;
- Dust suppression;
- Industrial use;
- Irrigation; and
- Livestock watering.

2.4.4.2 Regulated Waste Disposal

Until such time as the CSG water is approved for beneficial use, it is considered a regulated waste under the EP Act. *Environmental Protection Regulation 2008* (Qld) (EP Regulation) defines regulated waste as waste that is commercial or industrial waste, whether or not it has been immobilised or treated, and is of a type, or contains a constituent of a type, mentioned in Schedule 7 of the EP Regulation. In the absence of a Beneficial Use Approval, the water will need to be stored, transported and disposed of in accordance with the CSG Water Management Policy, the EP Act, EP (Waste Management) Regulation and *Water Supply (Safety & Reliability) Act 2008*. Approvals will also be required for other regulated wastes generated by Project activities, including drilling fluid.

The identification and management of regulated wastes is addressed within the Waste Management chapter (Section 28) of this EIS.

Section 2 Project Approvals

2.4.5 Conduct and Compensation Agreement

Queensland's land access regulatory framework for the CSG industry was reviewed in 2010 (with an associated land access code published in November 2010). The key features of the new laws are:

- All petroleum authority holders must comply with the Land Access Code;
- An entry notice requirement for 'preliminary activities' that cause no impact or only minor impact on landholders;
- A requirement that a Conduct and Compensation Agreement be negotiated before a petroleum authority holder comes onto a landholder's property to undertake 'advanced activities' that are likely to have a significant impact on business or land use;
- A graduated process for negotiation and resolving disputes about agreements, ensuring that matters are only referred to the Land Court as a last resort; and
- Stronger compliance and enforcement powers for government agencies where breaches of the Land Access Code occur.

Arrow has a number of land access initiatives, which accord and exceed the requirements of the land access code. Examples of these measures are contained within the Land Use and Tenure chapter (Section 19) and the Social chapter (Section 24) of this EIS.

2.4.6 Strategic Cropping Land Compliance Certificates and Protection Decisions

A Strategic Cropping Land (SCL) Compliance Certificate will be issued prior to the issuing of the EA.

A standard conditions code has been introduced that simplifies the SCL compliance framework. The standard conditions code applies to some activities where they are considered that they are likely to have a temporary impact and pose a relatively low risk of adversely impacting on SCL. As a result, some activities inherent to the Project will be authorised beneath the SCL standard conditions code and will be administered beneath the EA for the Project.

However, activities that cannot comply with the SCL standard conditions code must apply for an SCL protection decision. These activities need to be assessed and conditioned under Chapter 3, Part 4 of the *Strategic Cropping Land Act 2011*. This group of activities includes:

- Surface linear infrastructure other than non-sealed access tracks;
- Buried linear infrastructure greater than 250 mm in diameter;
- Camps and accommodation;
- Waste disposal and waste landfill;
- Dams, ponds and sumps;
- Compressor stations;
- Water treatment plants;
- Borrow pits; and
- Chemical or fuel storage.

Section 2 Project Approvals

2.4.7 Taking/Interfering with Protected Plant/Animal

Clearing permits will be required where it is considered necessary to take or move protected plants under the *Nature Conservation Act 1992* (NC Act). Protected plants include any plant prescribed under the Act as threatened, rare or near threatened that is in the wild.

Section 41 of the *Nature Conservation (Protected Plants) Conservation Plan 2000* provides an exemption under the NC Act, which exempts the need for a clearing permit where the clearing affects “Least Concern” vegetation in those instances where the clearing happens in the course of an activity authorised under an authority given under another Act and is approved in the course of the activity (i.e. authorised beneath the EA).

A Species Management Program for tampering with animal breeding places is also offered in conjunction with the abovementioned exemption and allows for the tampering of an animal breeding place within areas of “Least Concern” vegetation.

Approval will also be required under the NC Act where it is necessary to take/relocate a protected animal or native wildlife in accordance with Section 88(2) and Section 97(2) of the NC Act, respectively.

2.4.8 Operational Works Permit

An operational works permit will be required under the *Fisheries Act 1994* to remove, destroy, or damage marine plants. In the event that Arrow needs to establish waterway barrier works to carry out activities through watercourses, approvals may be required under the *Fisheries Act 1994* and *Sustainable Planning Act 2009*.

2.4.9 Licence for Taking or Interfering with Water

The P&G Act allows the petroleum tenure holder to take or interfere with underground water if taking or interference happens during the course of, or results from, the carrying out of another authorised activity for the tenure. Water taken in this manner may be used to carry out, or in the process of carrying out, another authorised activity for the tenure.

The petroleum tenure holder may allow the property owner or occupant to use associated water for domestic or stock purposes, provided the water is used on land within the petroleum tenure or on adjoining land that has the same owner.

A petroleum tenure holder’s right to take underground water as part of authorised activities are governed by underground water obligations under the P&G Act and the *Water Act 2000*. The holder is required to ‘make good’ if the taking of water causes a landholder bore to have impaired capacity.

2.4.10 Licence to Store Hazardous Materials

A licence is required to store flammable and combustible liquids under the *Work Health and Safety Act 2011*. The Act sets out standards for the storage and handling of substances (such as flammable and combustible liquids).

Section 2 Project Approvals

2.4.11 Recycled Water Use Management Plan

Arrow may be required to operate under the requirements of the *Water Supply (Safety and Reliability) Act 2008*. Under the Act, water service providers must submit and maintain several management plans including recycled water management plans.

2.4.12 Referrable Dam

A development permit for operational work is required for the construction of a referable dam as defined under the *Water Supply (Safety and Reliability) Act 2008*. This only applies to dams of a certain size and does not include CSG water dams.

2.4.13 Rehabilitation Permit

A rehabilitation permit under Division 6 of the *Nature Conservation (Wildlife) Regulation 2006* may be required to allow the movement of wildlife in instances not otherwise authorised under the *Nature Conservation Act 1992* (NC Act). Such a permit may be required to allow relocation of wildlife accidentally trapped during construction.

2.4.14 Water Licences

Water licences are required under the *Water Act 2000* for taking or interfering with water from a watercourse, artesian water, subartesian water or overland flow.

Water licences are also required under the *Water Act 2000* to supply CSG water outside of the permitted purposes legislated in the P&G Act. The type and nature of licensing required will be determined by the final associated water management options identified for the Project.

2.5 Relevant Policies and Guidelines

A number of policies and guidelines will also be considered in the assessment of the Project. These are provided in Table 2-3 below.

Table 2-3 Relevant Policies and Guidelines

Policy or Guidelines	Purpose	Legislation Addressed
Coal Seam Gas Water Management Policy 2010 (Currently under review)	Developed to give direction for the treatment and disposal of CSG water, and the role the government wishes to play in facilitating greater beneficial use. Key features of the policy include discontinuing the use of evaporation ponds as a primary means of disposal of CSG water and making CSG producers responsible for treating and disposing of CSG water. The Project Description chapter (Section 4) of this EIS describes water management options for the Project and the Coal Seam Gas Water and Salt Management Strategy (Appendix AA) of this EIS describes the water management strategies for the Project.	<i>Environmental Protection Act 1994</i>

Section 2 Project Approvals

Policy or Guidelines	Purpose	Legislation Addressed
Draft Coal Seam Gas Recycled Water Management Plan and Validation Guideline	<p>This guideline has been developed to provide information about preparing an exclusion decision (if applicable) or CSG Recycled Water Management Plan where a scheme is proposing to supply either:</p> <ul style="list-style-type: none"> CSG water into a water source used for a drinking water supply by a drinking water service provider; or CSG water directly to a drinking water service provider as a source for a drinking water supply. <p>The Surface Water Technical Report (Appendix N of this EIS) details the beneficial use options for CSG water and Coal Seam Gas Water and Salt Management Strategy (Appendix AA of this EIS) describes the water management strategies for the Project.</p>	<i>Water Supply (Safety and Reliability) Act 2008</i>
<i>Environmental Protection (Air) Policy 2008 (EPP (Air))</i>	<p>Aims to achieve the objectives of the EP Act in relation to Queensland's air quality environment by:</p> <ul style="list-style-type: none"> Enhancing and protecting identified environmental values; Involving the community; and Ensuring the consistency of management decisions. <p>Arrow proposes to meet the EPP (Air) as outlined in the Air Quality chapter (Section 9 of this EIS).</p>	<i>Environmental Protection Act 1994</i>
<i>Environmental Protection (Noise) Policy 2008 (EPP (Noise))</i>	<p>Aims to achieve the objectives of the EP Act in relation to Queensland's noise environment. This is achieved by:</p> <ul style="list-style-type: none"> Identifying the environmental values that need to be enhanced and/or protected; Providing the framework for management programs and noise assessments; and Providing information about noise to the community. <p>Arrow proposes to meet the EPP (Noise) as outlined in the Noise and Vibration chapter (Section 22) of this EIS.</p>	<i>Environmental Protection Act 1994</i>
<i>Environmental Protection (Water) Policy 2009 (EPP (Water))</i>	<p>Aims to achieve the objectives of the EP Act, e.g., sustainable development relating to Queensland's waters. The EPP (Water) also governs the discharge of wastewater to land, surface water and groundwater and aims to protect the designated environmental values. The Groundwater chapter (Section 14) and the Surface Water chapter (Section 15) of this EIS detail the environmental values for groundwater and surface water. Arrow has identified potential impacts and proposed control and mitigation measures to protect these values.</p>	<i>Environmental Protection Act 1994</i>
Landfill siting, design, operation and rehabilitation Guideline	<p>Focuses on siting criteria along with design and operational requirements for conventional landfill facilities that accept general waste and/or some regulated waste for co-disposal. The Waste Management chapter (Section 28) of this EIS describes the waste management strategy for the Project.</p>	<i>Environmental Protection Act 1994</i>
Preparing an environmental management plan for CSG activities Guideline	<p>This guideline describes the broad structure and possible content requirements and considerations an applicant should include in the EM Plan to meet the statutory obligations in the EP Act. The guideline also describes the preferred structure of an EM Plan, the main content sections that must be included in the EM Plan and defines relevant terms. The Environmental Management Plan (Appendix Z) of this EIS details the environmental management objectives for the Project.</p>	<i>Environmental Protection Act 1994</i>

Section 2 Project Approvals

Policy or Guidelines	Purpose	Legislation Addressed
Environmental Offsets Policy	<p>This policy outlines the Australian Government's approach to the use of environmental offsets (offsets) under the EPBC Act.</p> <p>The policy relates to all matters protected under the EPBC Act (protected matters) and applies to offsetting requirements in terrestrial and aquatic (including marine) environments.</p> <p>The EPBC Act environmental offsets policy has five key aims, to:</p> <ol style="list-style-type: none"> 1. Ensure the efficient, effective, timely, transparent, proportionate, scientifically robust and reasonable use of offsets under the EPBC Act; 2. Provide proponents, the community and other stakeholders with greater certainty and guidance on how offsets are determined and when they may be considered under the EPBC Act; 3. Deliver improved environmental outcomes by consistently applying the policy 4. Outline the appropriate nature and scale of offsets and how they are determined 5. Provide guidance on acceptable delivery mechanisms for offsets. <p>Arrow proposes to meet the Environmental Offset Policy as outlined in the MNES Report (Appendix CC) of this EIS.</p>	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
Biodiversity Offset Policy	<p>Aims to ensure an equivalent or better biodiversity outcome on a state-wide basis, where biodiversity values are lost as a result of development or other activities. The offset policy is triggered as the Project is a level 1 petroleum activity under the EP Act. The objectives of the policy are to:</p> <ul style="list-style-type: none"> • Improve the long-term protection and viability of the state's biodiversity; • Increase the area of habitat restored and enhanced; and • Ensure development in Queensland is ecologically sustainable. <p>Arrow proposes to meet the Biodiversity Offset Policy as outlined in the Terrestrial Ecology chapter (Section 17) of this EIS.</p>	<p><i>Environmental Protection Act 1994</i></p> <p><i>Nature Conservation Act 1992</i></p>
Environmental Offset Policy	<p>Provides principles and guidelines for environmental offsets and guides the content of specific-issue offset policies to reflect the Queensland Government Environmental Offset Policy (QGEO) objectives and detail the delivery of environmental offsets. Four specific-issue offsets policies have been developed by the Queensland Government to support the QGEO and address specific environmental issues:</p> <ul style="list-style-type: none"> • Policy for Vegetation Management Offsets; • Mitigation and Compensation for Works or Activities Causing Marine Fish Habitat Loss; • Offsets for Net Benefit to Koalas and Koala Habitat; and • Queensland Biodiversity Offset Policy. <p>Arrow proposes to meet the Environmental Offset Policy as outlined in the Terrestrial Ecology chapter (Section 17) of this EIS.</p>	<i>Environmental Protection Act 1994</i>

Section 2 Project Approvals

Policy or Guidelines	Purpose	Legislation Addressed
Waste Water Discharge to Queensland Waters Operational Policy	Provides information for the assessment of development applications or EA applications for ERAs discharging residual wastewater to Queensland waters. It includes the consideration of mixing zones, assimilative capacity, environmental offsets and environmental values and water quality objectives. The Surface Water chapter (Section 15) of this EIS describes water quality objectives for the Project.	<i>Environmental Protection Act 1994</i>
Water Quality Guidelines	Under the EPP (Water) the Queensland Water Quality Guidelines inform the setting of water quality objectives required to protect or enhance environmental values for Queensland waters. They also provide government and the general community (including catchment/water managers, regulators, industry, consultants and community groups) guidelines for assessing and managing ambient water quality. The Surface Water chapter (Section 15) of this EIS describes water quality objectives for the Project.	<i>Environmental Protection Act 1994</i>