

2. PROJECT APPROVALS

This chapter provides an update to the principal approvals required by Arrow to construct, operate and maintain the project. Specific legislation that has been updated since the environmental impact statement (EIS) and its applicability to the project is also discussed in chapters 5 to 15. Additional legislation and policies relevant to the project have been detailed in Attachment 7, Legislation and Policy.

2.1 Overview of the Coal Seam Gas Approvals Process

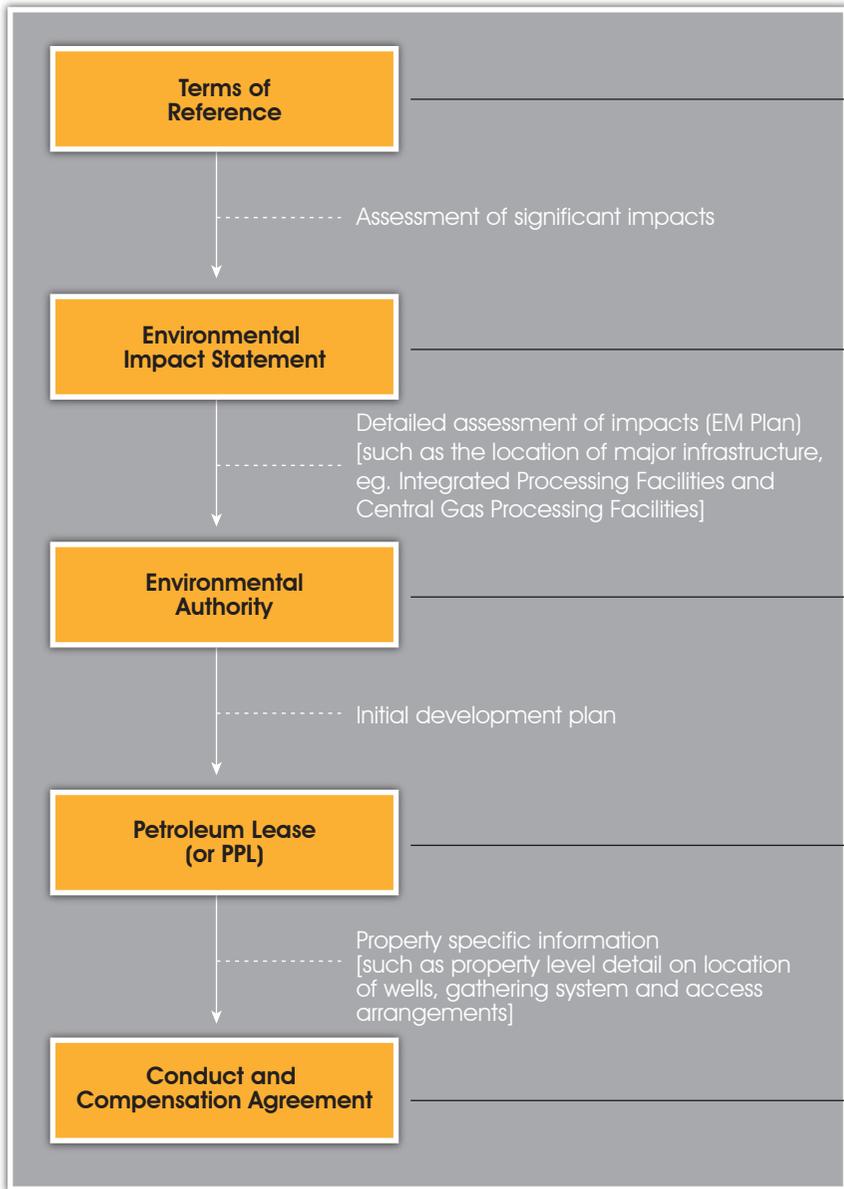
Coal seam gas development is progressive, extending over the life of the project, which is estimated at 35 years. Unlike conventional gas resources, coal seam gas resources are extensive, requiring widespread development to recover the resource. The yield from target coal seams is variable across the resource. This leads 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 coal seam gas water and process the gas is also uncertain, being driven by exploration results and optimisation of well placement and water and gas gathering systems.

The 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. However, they can be described based on the typical impacts of project activities. With that knowledge, greater certainty about potential impacts can be achieved by identifying those areas that are not amenable to certain types of development and if they were developed, how development should proceed. This is achieved through the identification of constraints to development and the establishment of environmental management controls that should apply to project activities in constrained areas.

Known as the environmental framework, this approach is an internal process developed by the proponent for managing impacts in the planning phase and in the construction and operation phases through the application of environmental controls that reflect the sensitivity or vulnerability of environmental values. Constraints mapping, an integral part of the environmental framework, is informed by the environmental impact assessment and guides site and route selection that seeks to avoid and reduce impacts, thereby protecting environmental values.

The assessment process that facilitates approval of the project reflects the phased approach to development. It progressively demands more detailed information to inform decisions about whether the project should proceed, under what conditions and whether requisite environmental authorities and permits should be granted, and under what conditions.

Each stage of the assessment process provides opportunities for stakeholders to comment on the information provided by the proponent and the approvals sought as per Figure 2.1. The public notification and comment requirements of each aspect of the approvals process are summarised below.



Public notification and comment on Draft Terms of Reference (EHP)

Public notification and comment on Environmental Impact Statement (EHP)

Public notification and comment on new or amended Environmental Authority (EHP)

Public notification and comment prior to grant of Petroleum Lease or Petroleum Pipeline Licence (DNRM)

Negotiation and agreement with landowner (proponent)

Environmental Impact Statement. The scope and adequacy of an EIS is subject to public notification and comment. Comments are sought on the draft terms of reference and EIS. The Chief Executive of the Department of Environment and Heritage Protection (EHP) considers all submissions in finalising the terms of reference and preparing the assessment report of the EIS. The assessment report sets out the conditions under which the project should proceed and provides direction to government agencies and regulatory authorities for the assessment and conditioning of environmental authorities and permits required by the proponent to construct and operate the project.

Environmental Authority. An environmental authority is required to commence construction and operation on a petroleum lease. The proponent may apply for an environmental authority or amend an existing environmental authority. An environmental authority sets out the detailed conditions under which a project must be constructed and operated. An application for an environmental authority must be published and public comment invited. EHP considers any submissions in assessing the application and determining the conditions that apply to the project activities. This process is discussed in further detail in Section 2.3.2 below.

Petroleum Lease. The Department of Natural Resources and Mines must grant the proponent a petroleum lease prior to the undertaking of petroleum activities which relate to production activities. Petroleum lease applications must be published and public comment sought prior to grant of the lease or licence. 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 about the nature and extent of activities to be carried out under the lease or licence. Subsequent development plans are required for each stage of proposed new development and must provide detailed information about subsequent development and changes to authorised development. Department of Natural Resources and Mines considers any submissions in deciding whether to grant the lease or licence and any conditions.

Conduct and Compensation Agreement. The proponent must negotiate a Conduct and Compensation Agreement under the *Petroleum and Gas (Production and Safety) Act 2004* (Qld) (P&G Act) with landowners on whose land the petroleum activities are proposed. Negotiation of the agreement provides an opportunity to landowners to raise concerns specific to their property and to reach agreement with the proponent on where, how and when development will occur on their property. The proponent is required to provide detailed information about the proposed activities, the location and timing of activities, the measures to manage impacts, rehabilitation and compensation. Negotiation of compensation includes access to dispute resolution and the Land Court of Queensland if agreement cannot be reached through negotiation.

2.2 Greentape Reduction

The *Environmental Protection (Greentape Reduction) and Other Legislation Amendment Act 2012* (Qld) (Greentape Reduction Act) was established by the Queensland Government to streamline, integrate and co-ordinate environmental regulatory requirements under the *Environment Protection Act 1994* (EP Act). The amendments to the EP Act introduce an integrated approval process for environmentally relevant activities, where approval requirements are proportional to the environmental risk of the activity.

Environmentally relevant activities listed in the EP Act that are considered to present a low risk, will be carried out in accordance with EHP's eligibility criteria (standard conditions). High risk environmentally relevant activities will need to be described in sufficient detail as to enable assessment by EHP. Where detailed, site-specific information is not available as part of the EIS

process, this information will be required as part of the application for the environmental authority or amendment to the environmental authority.

The approval process applies to all applications for an environmental authority to carry out an environmentally relevant activity. This includes resource activities (e.g., mining, petroleum, geothermal and greenhouse gas storage activities) and prescribed environmentally relevant activities.

The approval process for an environmental authority is now divided into stages similar to those of the Integrated Development Assessment System under the *Sustainable Planning Act 2009* (Qld) (SPA). The stages comprise the following:

- Application stage – where the application will be validated as properly made.
- Information stage – where the information contained in the application will be assessed to enable the administering authority to decide the application and where further information may be requested from the applicant.
- Notification stage – where the application documents will be made available for the public to make submissions.
- Decision stage – where a decision is made to approve with conditions or refuse the application, including the Land Court process for applications relating to a mining lease.
- Post-decision dealings – where processes such as amending, amalgamating, suspending and cancelling an environmental authority are dealt with.

The Greentape Reduction Act provides greater flexibility for operators by allowing three types of applications to be made:

1. Standard application—for eligible environmentally relevant activities that meet standard conditions. Such activities are able to comply with the set eligibility criteria. Applications will not require further assessment.
2. Variation application—for eligible environmentally relevant activities that wish to amend one or more standard conditions. This ensures that the assessment process is flexible and responsive.
3. Site-specific application—all other applications.

The Greentape Reduction Act links the information and notification stages of the environmental authority assessment process to the EIS process in Chapter 3 of the EP Act.

When making an application for an environmental authority, proponents are required to include:

- A description of the environmental values.
- Details of any emissions or releases likely to be generated by the resource activity.
- A description of the impacts to environmental values.
- Details on how the risks will be managed to prevent or reduce adverse impacts.
- Details on how the land will be rehabilitated after the activity ceases.

Traditionally, these aspects have been captured in a statutory environmental management plan (EM plan), the purpose of which, was to propose environmental protection commitments to assist

the administering authority to develop the conditions of the environmental authority. The EM plan identified and described the environmental values that could be impacted by project activities and presented information as required under the EP Act.

The EP Act no longer stipulates that this information has to be presented in an EM Plan. The process does not provide a preferred format for the presentation of this information, but retains the statutory information requirements needed to assess environmental authority applications or amendment applications. The act permits the use of the EIS, EM Plan or application documents as means of presenting the information, provided the chosen format meets the requirements outlined in section 125. Further guidance for fulfilling the statutory information requirements is outlined in the EHP Guideline ‘Application requirements for petroleum activities’ (EHP, 2013). Certain statutory management plans will continue to be required under an environmental authority for some activities, such as contingency plans in the case of emergencies.

2.3 Environmental Authority

An environmental authority is required to convert an authority to prospect to a petroleum lease, and to carry out environmentally relevant activities on the petroleum lease. The environmental authority will address applicable environmentally relevant activities, which are defined in section 18 of the EP Act.

2.3.1 Environmentally Relevant Activities

The final list of required environmentally relevant activities for the project will depend upon a number of factors such as refinement of Arrow’s field development plan, and associated environmental management plans required under the Coal Seam Gas Water Management Policy 2012.

Environmentally relevant activities likely to be applicable to the project were presented in the EIS. Subject to the amendments to the EP Act, petroleum activities are now deemed resource activity environmentally relevant activities. These activities require an environmental authority. Prescribed environmentally relevant activities’ under the revised Environmental Protection Regulation 2008, Schedule 2, that are to be undertaken on the petroleum lease must also be included in the environmental authority for petroleum activities. The revised environmentally relevant activities applicable to the project are presented in Table 2.1.

Table 2.1 Project environmentally relevant activities

Environmentally Relevant Activities	Description	Variation	Applicable Project Activities
Resource Activity			
A Petroleum Activity	<ul style="list-style-type: none"> An activity that, under the Petroleum Act 1923, is an authorised activity for a 1923 Act petroleum tenure under that Act; or An activity that, under the P&G Act, is an authorised activity for a petroleum authority under that Act; or 	Previously a chapter 5A ERA.	Activities relating to gas production.

Table 2.1 Project environmentally relevant activities (cont'd)

Environmentally Relevant Activities	Description	Variation	Applicable Project Activities
Resource Activity (cont'd)			
A Petroleum Activity (cont'd)	<ul style="list-style-type: none"> Exploring for, exploiting or conveying petroleum resources under a licence, permit, pipeline licence, primary licence, secondary licence or special prospecting authority granted under the Petroleum (Submerged Lands) Act 1982. 		
Schedule 2 - Prescribed ERAs			
ERA 8 – chemical storage	10 m ³ or more of chemicals of class C1 or C2 combustible liquids under AS 1940 (Standards Australia, 2004a) or dangerous goods class 3.	The threshold for the ERA has been removed.	Storage of chemicals used for coal seam gas 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.	Nil	Power generation for electricity supply to gas compression and water treatment facilities.
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.	Nil	Flaring of gas at production facilities including central gas processing facilities and field compression facilities.
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.	The threshold for this ERA has been removed.	Onsite concrete batch plant if established at production facility construction site.
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.	The threshold for the ERA relating to storage of tyres has been removed.	Storage of regulated waste (brine) at water treatment facility.
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.	Nil	Operation of a brine treatment facility (the preferred option for disposal of brine).
ERA 60 – waste disposal	Operating a facility for disposing of regulated waste; more than 200,000 t.	Nil	Operation of a brine treatment facility (the preferred option for disposal of brine).

Table 2.1 Project environmentally relevant activities (cont'd)

Environmentally Relevant Activities	Description	Variation	Applicable Project Activities
Schedule 2 - Prescribed ERAs			
ERA 63 – sewage treatment	Operating one or more sewage treatment works at a site that has a total daily peak design capacity of more than 21 equivalent persons.	The threshold for the ERA where operating no-release works has been removed.	Sewerage facilities at construction camp sites and/or production facility sites.

2.3.2 The Application Process

Arrow currently undertakes its coal seam gas development activities under the environmental authority (PEN100449509) for the Dalby Expansion Project. The environmental authority applies to approved petroleum and other environmentally relevant activities in the Surat Basin in the areas shown in Figure 1.1.

Arrow may apply to amend the Dalby Expansion Project environmental authority or apply for a new environmental authority for each stage of the development in accordance with the requirements of the EP Act. The staged application process reflects the incremental maturation of the development concept, whereby information on site-specific activities becomes available enabling site-specific impact assessment.

Detailed information about site-specific project activities is required to enable EHP to assess applications for environmental authorities. The application process enables an EIS, where it contains sufficient detail, to fulfil the information requirements of an application. The supplementary report to the EIS may not contain sufficient information to support all environmental authority applications e.g., construction of a brine treatment facility. Where necessary, Arrow will prepare more detailed technical information to support applications to amend the Dalby Expansion Project environmental authority or apply for new environmental authorities.

Once the information requirements of the administering authority have been satisfied, the administering authority will give notice to the proponent. The notice issued by the administering authority to the proponent will specify a public submission period. The application will be published and public comment invited. Any entity, within the submission period, may make a submission to EHP regarding the amendment application.

At the end of the public submission period, the administering authority will decide the application with consideration of the public submissions, standard criteria, and information provided in the application and EM Plan or similar document. If the administering authority decides to approve the application, it will prescribe conditions to reflect the activities authorised on the petroleum lease.

On issue of the environmental authority to the proponent, EHP will advise the Department of Natural Resources and Mines that the nominated activities are authorised on the petroleum lease from the issue date.

2.4 Other Considerations

This section discusses implications of amendments to Queensland and Commonwealth government policies and legislation for the proposed project.

2.4.1 Strategic Cropping Land

The strategic cropping land legislative and planning framework is designed to protect strategic cropping land from developments that could lead to permanent impacts or diminished productivity.

The Surat Gas Project EIS Chapter 13, Agriculture, Section 1.3, identified that the project has the potential to trigger development types 1 and 2c, with wells, gathering systems and pipelines being type 1 developments and production facilities being type 2c developments. These types are defined under the State Planning Policy 1/12: Protection of Queensland's strategic cropping land as:

- Type 1: development that causes temporary diminished productivity including development that impacts upon the soil resource and/or prevents cropping activity, but where the land can be fully restored following cessation of the use.
- Type 2c: development that causes long-lasting impacts that prevent or reduce cropping capability including impacts such as subsidence, changes to the soil structure or contamination (e.g., minerals extraction).

The *Strategic Cropping Land Act 2011* (Qld) (SCL Act) allows for certain resource activities that have a temporary impact on strategic cropping land or potential strategic cropping land to apply for a compliance certificate to operate under the Strategic Cropping Land: Standard Conditions Code for Resource Activities. Under Section 81 of the SCL Act, this code cannot be used for a resource activity that will have a permanent impact in a protection area.

The Department of Natural Resources and Mines has simplified the strategic cropping land compliance framework for certain resource activities provided for in the code that have a temporary impact and pose a relatively low risk of adversely impacting on strategic cropping land. The revised standard conditions code for resource activities was released after the EIS was prepared. The code contains three parts, of which part 3 applies to a number of the proposed Surat Gas Project petroleum activities. The parts are:

- Part 1 which applies to resource activities that will have no additional impact on strategic cropping land or potential strategic cropping land beyond what was previously authorised under an environmental authority for the land.
- Part 2 which applies to resource activities that are considered to have a minimal and temporary impact on strategic cropping land or potential strategic cropping land.
- Part 3 which applies to resource activities that are considered to have a low and temporary impact on strategic cropping land or potential strategic cropping land. The code nominates the following activities as satisfying the conditions:
 - Excavation.
 - Buried linear infrastructure including gathering lines, power lines.
 - Sample pits and geotechnical pits.
 - Strategic cropping.
 - Stockpiling soil.
 - Well leases.
 - Lay down areas.
 - Chemical and fuel storage.
 - Sumps.
 - Access tracks (formed or gravelled).
 - Geophysical surveying.

- Exploratory drilling and core holes.
- Water monitoring bores.
- Temporary camps and accommodation.

An applicant for a compliance certificate must decide which part of the code to apply for based on the resource activities that are proposed to be undertaken on strategic cropping land or potential strategic cropping land and the conditions for undertaking those activities.

The applicant must then complete a compliance certificate application form (which forms part of the environmental authority application form) and declare in that form which part of the code they are applying for and certify that they will comply with the conditions of that part of the code.

Applicants applying under parts 1, 2 or 3 of the code are required to submit their strategic cropping land compliance certificate application at the same time as their application for an environmental authority (or application to amend an environmental authority). The application for a compliance certificate is contained within the environmental authority application form.

Provided all application requirements are met, the Chief Executive (or his/her delegate) will give the applicant a compliance certificate which will clearly identify which part of the code the applicant must comply with. The applicant is bound by the conditions of that part of the code which are taken to be conditions of the environmental authority or resource authority.

An environmental authority (including an amended environmental authority) cannot be issued until a strategic cropping land compliance certificate has been obtained.

Where a proponent intends to undertake a resource activity on strategic cropping land or potential strategic cropping land that is not provided for in the standard conditions code, such as production facilities, or where the proponent cannot comply with the conditions of this code, a full strategic cropping land development assessment is required to inform a strategic cropping land protection decision.

Section 95 of the SCL Act outlines the process for applying and obtaining a strategic cropping land protection decision. The application must be made in the approved form and describe the land and resource activity and be accompanied by the fee prescribed under regulation. In making a strategic cropping land protection decision, the Chief Executive (or his/her delegate) must consider the extent of the impact of carrying out the resource activity on strategic cropping land, whether carrying out the resource activity will have a permanent impact or temporary impact on the land, and whether the applicant has demonstrated that the impact has been avoided or minimised to the greatest extent possible. The Chief Executive must give the applicant an information notice about the strategic cropping land protection decision as soon as practicable after making it. The proponent must abide by the notice including any conditions imposed by the Chief Executive.

2.4.2 Environment Protection and Biodiversity Conservation Act 1999 Proposed Amendment

A bill seeking amendment to the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) (EPBC Act), is being introduced into Federal Parliament to include water resources as a matter of national environmental significance for coal seam gas and large coal mining developments. The amendment is sought to provide for the comprehensive assessment of impacts on water resources to ensure their protection.

The amendment must be debated and passed by both Houses of Parliament, and receive royal assent, before it becomes law. If passed and enacted, the amendment will require coal seam gas

and large coal mining projects to assess impacts on water resources in accordance with the requirements of the EPBC Act. The Minister for Sustainability, Environment, Water, Population and Communities will decide whether to retrospectively apply the amendment to existing projects prior to seeking royal assent of the amendment.

2.4.3 Independent Expert Scientific Committee

The Australian Government has established an Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development (IESC) through amendment to the EPBC Act. The IESC provides advice to the federal minister on research priorities to improve the understanding of potential impacts of coal seam gas and large mining developments on water resources. The committee can be requested by federal, state and territory governments to provide advice on water-related aspects of environmental impact assessments.

The Surat Gas Project EIS was referred to the IESC on 14 January 2013 by the Australian Government Department of Sustainability, Environment, Water, Population and Communities. The committee's advice to the department dated 20 February 2013 was published on its website in March 2013. The federal minister will consider the IESC's advice in preparing the assessment report for the Surat Gas Project EIS.

2.5 Additional Permits and Approvals

In addition to the environmental authority, a number of other permits and approvals are required to undertake construction and operation activities of the Surat Gas Project. These approvals will be sought either in conjunction with the environmental authority amendment applications or as part of separate processes required by the relevant legislation or regulation.

The applicable permits and approvals were presented in the EIS, Chapter 2, Project Approvals, Section, 2.3. Arrow will continue to consult with relevant commonwealth, state and local government agencies on the approvals required under Australian and Queensland government legislation during implementation of the project.