

1. INTRODUCTION

Arrow Energy Pty Ltd (Arrow) proposes to expand its coal seam gas operations in the Surat Basin of Queensland through the Surat Gas Project (the project). Reference to the Surat Basin in this report includes proposed development of Arrow's petroleum tenures in the Surat Basin and westernmost part of the Clarence-Moreton Basin.

An environmental impact statement (EIS) has been prepared for the project under Chapter 3 of the *Environmental Protection Act 1994* (Qld) (EP Act) and s. 133 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) (EPBC Act). Coffey Environments Australia Pty Ltd (Coffey Environments) was commissioned to assist Arrow in preparing the Surat Gas Project EIS (Coffey Environments, 2012b). The EIS will inform a decision on whether the project should proceed and, if so, under what conditions.

The final EIS was submitted to the Chief Executive of the Department of Environment and Heritage Protection (EHP) in March 2012. The EIS was placed on public exhibition from 16 March 2012 to 14 June 2012. The Chief Executive of EHP received 167 submissions relating to the EIS from government agencies and the public during this time.

Under s. 56 of the EP Act, following the receipt of submissions, the proponent is required to prepare a supplementary report that summarises and addresses the comments and responds to any additional matters identified by EHP. The Surat Gas Project Supplementary Report to the EIS (SREIS) has been prepared for this purpose.

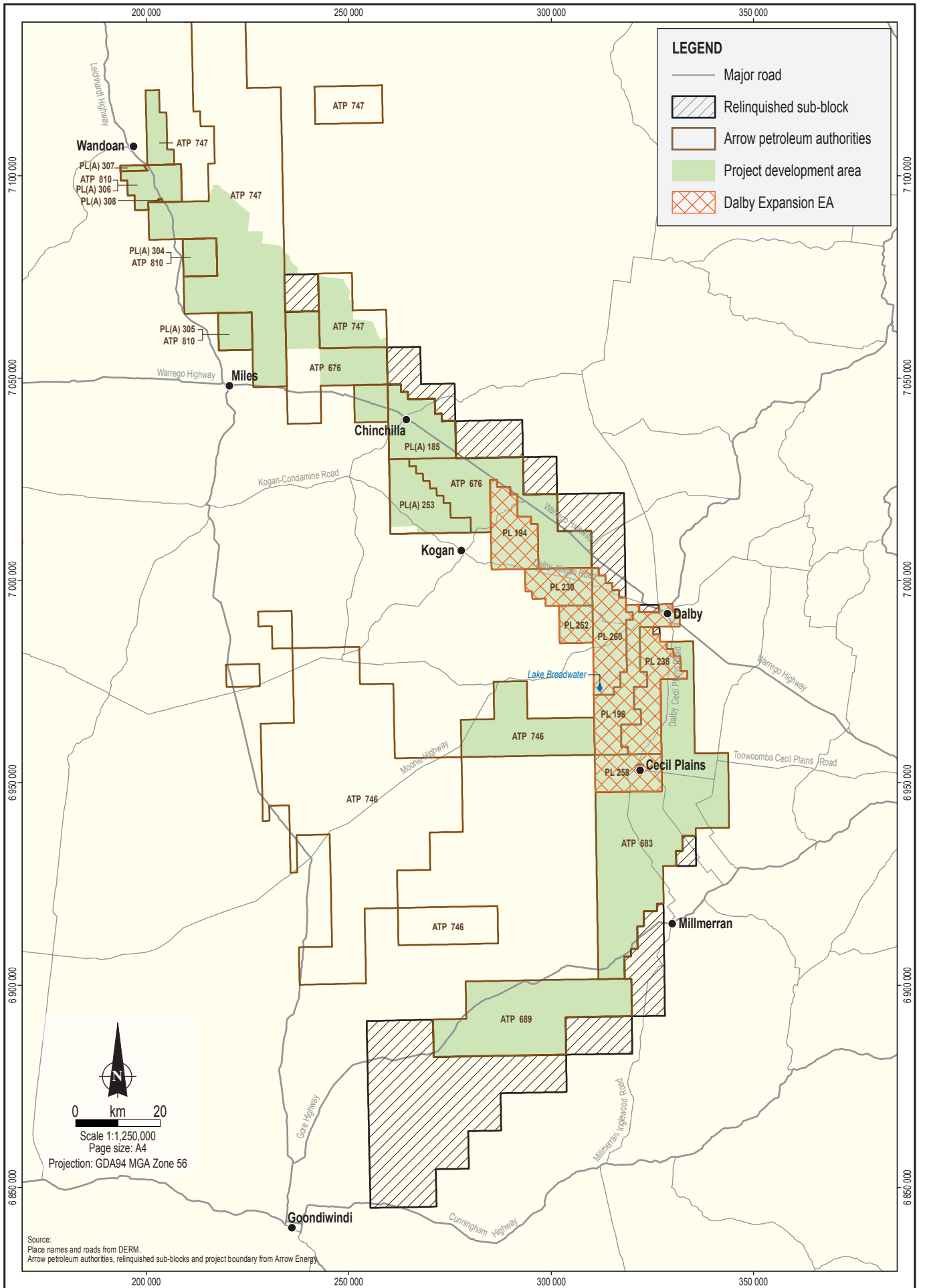
This chapter identifies the main changes to the project since the EIS was published and sets out the objectives and structure of the SREIS.

1.1 Project Update

Key elements of the project include the production wells, gas and water gathering systems, production facilities, water treatment and storage facilities, power requirements and high-pressure gas pipelines. Supporting infrastructure, such as depots, telecommunications, access tracks, borrow pits, and temporary workers accommodation facilities, are also proposed for the project.

Since the submission of the Surat Gas Project EIS (Coffey Environments, 2012b) to the Queensland Government in March 2012, Arrow's field development planning and project description refinement has advanced through further exploration activities and a greater understanding of the gas resource. As a result, Arrow has relinquished some parcels of land within exploration tenements, significantly reducing the size of the project development area (from approximately 8,600 km² to 6,100 km²) (Figure 1.1). Other key project refinements include a reduced number of gas processing facilities, production wells (from approximately 7,500 to 6,500), and water treatment facilities and the introduction of multi-well pads. These changes collectively reduce the project footprint.

The main changes to the project description are presented in detail in Chapter 3, Project Description.



1.2 Objectives of the SREIS

The objectives of the SREIS are to:

- Update the government and the public on changes to the project description that have occurred since the publication of the EIS.
- Address terms of reference requirements for which information was unavailable at the time of publishing the EIS.
- Provide an update on the consultation undertaken for the project.
- Provide technical responses to issues raised in submissions.
- Review and confirm Arrow's project commitments.
- Provide recommendations to the Chief Executive of EHP in relation to the Surat Gas Project.

1.3 Structure of the SREIS

The SREIS comprises three parts. Part A is structured similarly to the Surat Gas Project EIS Main Report and presents:

- Further clarification and reiteration of the EIS approvals process, as well as other approvals processes that are required prior to project construction (Chapter 2, Project Approvals).
- Changes to the project description (Chapter 3, Project Description).
- An update on stakeholder consultation undertaken for the project (Chapter 4, Consultation).
- Changes to potential environmental impacts arising from the updated project description (chapters 5 to 15). In some instances, this includes the results of additional, targeted technical studies, with the full studies presented in appendices 1 to 14.
- Updates to matters of national environmental significance, management plans and strategy, project commitments, constraints mapping, offsets strategy and legislation and policy are presented in attachments 1 to 8.

Table 1.1 identifies the chapters, attachments and appendices for which supplementary information has been prepared for inclusion in the SREIS.

Table 1.1 Summary of EIS chapters, attachments and appendices supported by supplementary information

EIS chapters, attachments and appendices	Supplementary chapters, attachments and appendices
Chapter 1, Introduction	Chapter 1, Introduction
Chapter 2, Project Approvals	Chapter 2, Project Approvals
Chapter 3, Project Need	No revision necessary
Chapter 4, Environmental, Social and Economic Context	No revision necessary
Chapter 5, Project Description	Chapter 3, Project Description

Table 1.1 Summary of EIS chapters, attachments and appendices supported by supplementary information (cont'd)

EIS chapters, attachments and appendices	Revised SREIS chapters, attachments and appendices
Chapter 6, Public and Stakeholder Consultation Appendix B, Consultation Report	Chapter 4, Consultation Appendix 1, Supplementary Consultation Report
Chapter 7, Impact Assessment Method	No revision necessary
Chapter 8, Environmental framework	No revision necessary
Chapter 9, Air Quality Appendix C, Air Quality Impact Assessment	Chapter 5, Air Quality Appendix 2, Supplementary Air Quality Assessment
Chapter 10, Greenhouse Gas Emissions Appendix D, Greenhouse Gas Impact Assessment	Chapter 6, Greenhouse Gas Emissions Appendix 3, Supplementary Greenhouse Gas Assessment
Chapter 11, Climatic Adaptation	No revision necessary
Chapter 12, Geology, Landform and Soils Appendix E, Geology, Landform and Soils Impact Assessment	No revision necessary
Chapter 13, Agriculture Appendix F, Agriculture Report	Chapter 7, Agriculture Appendix 14, Supplementary Agricultural Economics Report
Chapter 14, Groundwater Appendix G, Groundwater Impact Assessment	Chapter 8, Groundwater Appendix 4, Supplementary Groundwater Assessment
Chapter 15, Surface Water Appendix H, Surface Water Part A: Fluvial Geomorphology and Hydrology Impact Assessment Appendix I, Surface Water Part B: Water Quality Impact Assessment	Chapter 9, Surface Water Appendix 5, Supplementary Surface Water Assessment Part A – Geomorphology and Hydrology Appendix 6, Supplementary Surface Water Assessment Part B – Water Quality Appendix 7, Supplementary Surface Water Assessment Part C – Preliminary Environmental Flows Assessment
Chapter 16, Aquatic Ecology Appendix J, Aquatic Ecology Impact Assessment	Chapter 10, Aquatic Ecology Appendix 8, Supplementary Aquatic Ecology Assessment
Chapter 17, Terrestrial Ecology Appendix K, Terrestrial Ecology Impact Assessment	Chapter 11, Terrestrial Ecology Appendix 9, Supplementary Terrestrial Ecology Assessment
Chapter 18, Landscape and Visual Amenity Appendix L, Landscape and Visual Impact Assessment	No revision necessary
Chapter 19, Roads and Transport Appendix M, Road Impact Assessment	Chapter 12, Roads and Transport Appendix 10, Supplementary Roads and Transport Assessment
Chapter 20, Noise and Vibration Appendix N, Noise and Vibration Impact Assessment	Chapter 13, Noise and Vibration Chapter 11, Supplementary Noise and Vibration Assessment
Chapter 21, Economics Appendix O, Economic Impact Assessment	No revision necessary
Chapter 22, Social Appendix P, Social Impact Assessment	Chapter 14, Social Chapter 13, Supplementary Social Assessment

Table 1.1 Summary of EIS chapters, attachments and appendices supported by supplementary information (cont'd)

EIS chapters, attachments and appendices	Revised SREIS chapters, attachments and appendices
Chapter 23, Indigenous Cultural Heritage Appendix Q, Aboriginal Cultural Heritage Impact Assessment	No revision necessary
Chapter 24, Non-Indigenous Cultural Heritage Appendix R, Non-Indigenous Heritage Impact Assessment	No revision necessary
Chapter 25, Preliminary Hazard and Risk Appendix S, Preliminary Hazard and Risk Assessment	Chapter 15, Preliminary Hazard and Risk Appendix 12, Supplementary Preliminary Hazard and Risk Assessment
Chapter 26, Waste Management	No revision necessary
Chapter 27, Summary of Key Impacts	Chapter 22, Conclusion
Chapter 28, Cumulative Impacts	No revision necessary
Chapter 29, References	Chapter 23, References
Chapter 30, Glossary and Abbreviations	Chapter 24, Glossary and Abbreviations
Chapter 31, Study Team	Chapter 25, Study Team
Attachment 1, Surat Gas Project Final Terms of Reference	No revision necessary
Attachment 2, Cross-Reference with the Final Terms of Reference	No revision necessary
Attachment 3, Matters of National Environmental Significance	Attachment 1, Matters of National Environmental Significance
Attachment 4, Project Relevant Legislation	Attachment 7, Legislation and Policy
Attachment 5, Environmental Management Plan	Attachment 2, Strategic Environmental Management Plan
Attachment 6, Social Impact Management Plan	Attachment 3, Social Impact Management Plan
Attachment 7, Ecologically Sustainable Development	No revision necessary
Attachment 8, EIS Commitments Summary	Attachment 4, Commitments Update
Attachment 9, Coal Seam Gas Water Management Strategy	Attachment 5, Coal Seam Gas Water and Salt Management Strategy
Attachment 10, Preliminary Constraints Maps	Attachment 8, Constraints Mapping Update
Not presented	Attachment 6, Draft Environmental Offsets Strategic Management Plan

Part B relates to submissions and presents:

- Submissions overview.
- The process used to respond to submission issues and the register of submitters (private names have been withheld).
- The register identifying the issues raised (by way of a unique reference number for each issue) by each submitter.
- Arrow's response to submissions.

In the case of Arrow's response to submissions, cross-reference is provided either to the EIS or to the SREIS, Part A. Alternatively, responses are grouped by topic and provided in Part B.

Part C presents the conclusion and supporting sections that are relevant to the entire SREIS (i.e., references, glossary and abbreviations and study team).