

NEWSTEAD TO BULLA PARK PIPELINE

Project Description Report

APA Group



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Executive Summary

INTRODUCTION

APA Pipelines (QNSW) Pty Ltd, a wholly owned subsidiary of APA Group, is proposing to connect the Wallumbilla Gas Hub in south central Queensland, to the Moomba Wilton Pipeline at Bulla Park in NSW through the construction of a pipeline from Newstead in Queensland to Bulla Park. The pipeline would be approximately 645 km in length of which approximately 350 km is within NSW (refer Figure 1-1).

At Bulla Park, the proposed pipeline will connect to the existing Moomba Wilton Pipeline owned by APA. The gas will be used for industrial, commercial and domestic purposes throughout NSW and the ACT, and potentially in Victoria via Culcairn and South Australia via Moomba.

APA Group, comprised of Australian Pipeline Trust and APT Investment Trust, is a major ASX-listed energy transmission company in Australia with interests in almost 12,000 km of natural gas pipeline infrastructure, and over 2,300 km of gas distribution networks in Australia.

The Project is estimated to cost approximately \$500 million depending upon the pipe diameter ultimately adopted. The pipe diameter will be a factor of market demand, and is currently expected to be 18 inches.

NEED FOR THE PROJECT

As new gas sources have been discovered and developed in the Southern Queensland, a significant proportion of NSW future gas supply is expected to be sourced from there. A new pipeline connecting this emerging resource area directly to the Moomba to Wilton pipeline is regarded as an effective way to facilitate bring this gas into SE Australia.

As Australia moves to cleaner lower greenhouse energy sources such as gas, there is an increasing need to ensure the infrastructure to deliver gas to market is developed in a timely manner. The proposed pipeline will ensure that the increased demand for gas use by industry, power generation and domestic use is able to be met.

PROJECT OBJECTIVES

The Newstead to Bulla Park Pipeline seeks to provide a cost effective high pressure pipeline link between the gas fields in Queensland and South Eastern Australia through an interconnection with the existing Moomba Wilton Pipeline.

PROJECT DESCRIPTION

The pipeline will be a buried, high pressure (15.3MPa) gas transmission pipeline. The pipe is expected to be supplied in 18m lengths which will be welded together at site and buried with at least 750mm depending upon terrain and prevailing land use.

A number of route options have been investigated taking into account strategic objectives, engineering criteria and environmental and topographic constraints including:

- Efficiency of construction
- Minimising potential impacts on sensitive ecosystems; and
- Minimising impacts to landholders and land uses along the pipeline route.

PLANNING PROVISIONS AND LEGISLATIVE REGIME

The Project has been designated a Major Project by the Department of Planning under Part 3A of the Environment Planning and Assessment Act 1979 on the grounds of Major Projects SEPP Schedule 1, Clause 6 (2) (b) "Development for the purpose of Petroleum related works that has a capital investment value greater than \$A30 million."

The project is not expected to cause a significant impact on matters of National Environmental Significance (NES) however as the pipeline route is preliminary and there exists the potential, however unlikely, to impact on threatened species a referral under the *Environment Protection and Biodiversity Act* (EPBC) will be made.

The relevant Local Environmental Plans and Regional Planning Instruments associated with the proposed pipeline route include the:

- Brewarrina Local Environmental Plan
- Bourke Shire Local Environmental Plan
- Cobar Shire Local Environmental Plan
- Western New South Wales Regional Environmental Plan.

PRELIMINARY ASSESSMENT

No key opportunities or constraints associated with Regional Strategies or Environmental Planning Instruments have been identified to date. This will be further investigated during the assessment process.

No key opportunities or constraints have been identified to date in relation to past land use or location characteristics except as discussed under environmental constraints.

1.0 INTRODUCTION

1.1 Project Overview

APA Pipelines (QNSW) Pty Ltd is proposing to connect the Wallumbilla Gas Hub in south central Queensland, to the Moomba Wilton Pipeline in NSW through the construction of a 645 km pipeline from Newstead in Queensland to Bulla Park in NSW. Approximately 350km of the pipeline will be located within NSW (refer Figure 1-1).

The proposed new pipeline will enable direct delivery of Queensland gas into NSW, Victoria, the ACT and South Australia. The gas will be used for industrial, commercial and residential purposes. Current planning indicates a construction completion date of the end 2011.

This Project relates only to the gas transmission pipeline

1.2 The Proponent

APA Pipelines (QNSW) Pty Ltd is a wholly owned subsidiary of APA Group. APA Group is comprised of Australian Pipeline Trust and APT Investment Trust, is a major ASX-listed energy transmission company in Australia with interests in almost 12,000 km of natural gas pipeline infrastructure and over 2,300 km of gas distribution networks.

APA manages and operates all its assets and also provides management and operation services to gas distribution and transmission company Envestra and other energy infrastructure companies.

APA employs over 1,000 people.

1.3 Purpose and Scope of the Document

The purpose of this document is to provide a description of the Newstead to Bulla Park Pipeline to enable the NSW Government to determine the environmental assessment criteria to be applied to the Project as a Major Project for which Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act) will apply.

Figure 1-1 : Newstead to Bulla Park Pipeline



2.0 NEED FOR THE PROJECT

2.1 Justification

The decline in gas reserves at Moomba is occurring at the same time as an increase in demand throughout NSW. To meet the power requirements of the State, new peaking and base load power stations have been proposed whose gas demand can not be met with the existing infrastructure. At the same time that Moomba is declining, gas sourced from coal seams in Queensland is becoming available and it is proposed to bring this gas to NSW. The logical route is the shortest distance to join up with the mainline of the existing Moomba Wilton at Bulla Park. This point on the Moomba Wilton Pipeline is ideal enabling the existing infrastructure to deliver gas throughout NSW and into Victoria. Depending upon shipper requirements this location also has the potential to flow gas back to Moomba for storage or for delivery to South Australia.

2.2 Objectives

The key objectives of this proposal are to:

- Greater security of gas supply for SE Australia, particularly New South Wales;
- Provide additional sources for gas supply and therefore more competitive pricing opportunities;
- Provide additional capacity to meet a growing demand for a variety of gas transportation and storage services
- Facilitate the development of a cleaner burning fuel source for power generation in NSW.

The key objectives of the construction methodology will include:

- Utilise regional skilled labour in the construction and operation of the Project;
- Construct a pipeline that has the minimum practicable impact on both the natural and built environment;
- Design a pipeline route that provides for the most efficient, and economically feasible construction methodologies whilst taking into account the social, heritage, environmental, geotechnical, and topographical constraints.

2.3 Alternatives

2.3.1 Pipeline Routes

A number of route/corridor options have been considered taking into account topographical features, land use, and environmental factors. The proposed preliminary route/corridor has been chosen because it:

- Minimises potential impacts on sensitive ecosystems;
- Minimises impacts to landholders and land uses along the pipeline route;
- Provides the shortest and therefore the most economic route between Newstead and Bulla Park.

Whilst it is not expected that major changes will occur in relation to the preferred route/corridor, the final alignment has not been determined at this stage and is dependent upon the results of field surveys, geology, topography, ecology, cultural heritage values and landholder negotiations along the proposed corridor.

3.0 PROJECT DESCRIPTION

3.1 Route

The proposed pipeline will run almost south west from the Newstead gas field to a connection with the Moomba Wilton Pipeline at Bulla Park. The area lies within Mulga Lands, Darling Riverine Plain and Cobar Peneplain. The pipeline route through these regions is generally characterised by modified ecosystems due to grazing and agricultural activities.

The pipeline route traverses the Brewarrina, Bourke and Cobar Council areas in NSW. The area is predominantly grazing land, except for limited cropping and irrigation in the areas adjacent to the Darling River.

3.2 Route selection criteria

The strategic objectives in selecting the proposed pipeline routes included:

- Supply of gas to meet Shipper requirements;
- Connection to the existing gas transmission infrastructure;
- Economical construction;
- Operability considering environmental, access, stakeholder and cost impacts;
- Acceptable development costs; and
- Acceptable environmental impacts.

The general issues considered in selecting possible pipeline routes are outlined in Table 3-1.

Table 3-1: Criteria for Identification of Pipeline Routes

Criterion	Rationale
Directness of route from source to market	Shorter routes may offer significant economic, environmental, social and logistical benefits.
Location of existing linear corridors suitable for pipeline construction	Utilisation of existing linear corridors (e.g. roads) may avoid or reduce impact to sensitive areas. Constraints exist in utilising corridors occupied by other infrastructure (see discussion below).
Major terrain constraints	Unduly steep or rugged mountain ranges, extensive areas of rock, large number of major river crossings etc each tend to increase the difficulty and cost of construction and influence the scale of potential environmental impact.
Areas of conservation significance	Minor deviations may avoid impact on regional ecosystems.
Pipeline constructability	The location needs to consider all construction aspects and impacts.
Pipeline operability	The location needs to provide for low impact and safe access for routine maintenance and integrity monitoring.

Pipeline security	Ideally the pipeline is located on private property where public access is limited. The pipeline is ideally suited to rural land uses – particularly grazing and areas unlikely to be targeted for high density uses.
Impacts on mining, urban and infrastructure areas	Location of the pipeline taking into account current and future mining expansion and potential conflicts with other existing infrastructure (e.g. roads, rail lines, powerlines) and residential areas.

3.3 Pipeline

The pipeline would be a buried class 900, steel pipe with a maximum allowable operating pressure 15.3MPa. The pipeline would be designed and built to AS2885 *Pipelines Gas and Liquid Petroleum*. The pipe diameter has not as yet been determined and will be based on market demand. It is anticipated that 18" pipe will be used throughout.

Above ground structures are expected to include four scraper stations with ten Mainline Valves (MLVs), meter stations at receipt and delivery points, marker posts and cathodic protection inspection points. These cathodic protection test points are similar in size to the marker posts and are typically spaced about 2 km apart.

In future years compression may be added to the pipeline, however initially it will not have compression facilities installed.

3.4 Construction Activities

Pipeline construction is linear production-line-work with each crew targeting similar daily production rates for their specific activity, which for a Project of this size would be in the order of 2-3km per day. Activities are carried out sequentially with each crew typically being separated by approximately 1 week.

Typical activities to be undertaken include:

Temporary Facilities - A range of temporary facilities will be required during pipeline construction. These include work areas for equipment and pipe delivery and storage and borrow pits to source additional fill material (if required). The location of the temporary facilities is based on logistical requirements and the objectives for the pipeline route selection process (refer Section 3.1).

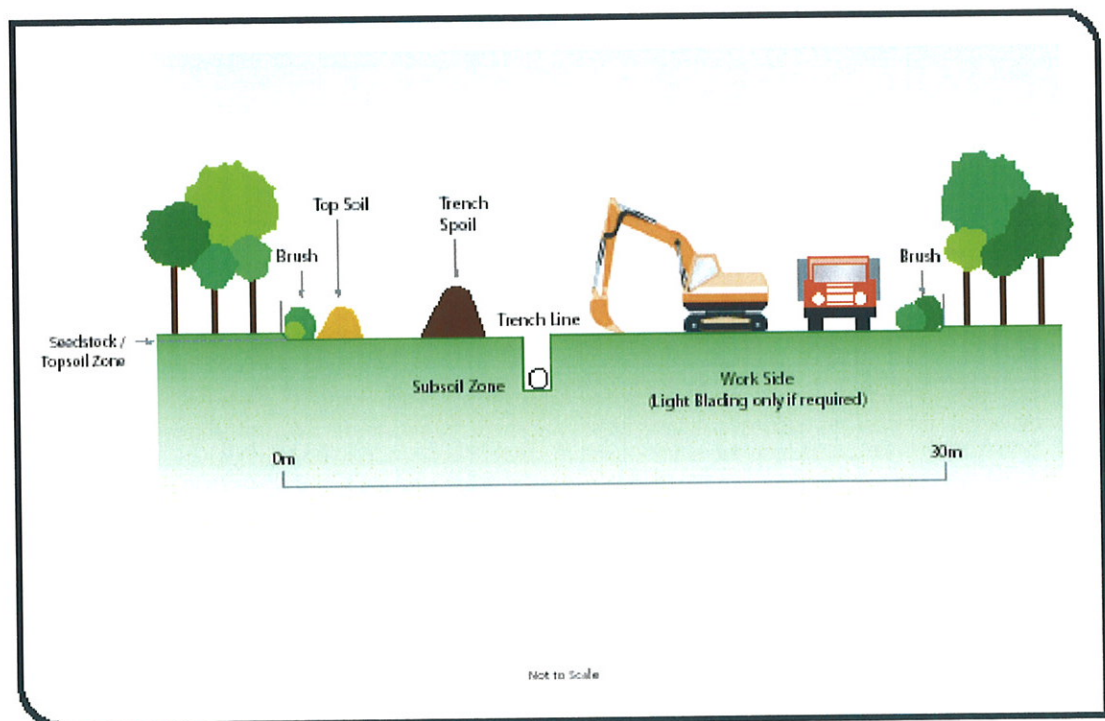
Pipe haulage – Pipe will need to be transported to site and it is anticipated that this would be by road. Pipe is typically supplied in 18m lengths transported on extended semi-trailers with a capacity to carry around 0.5km of pipe per truck depending upon the diameter of the pipe. Therefore 350 km of pipeline could involve approximately 700 loaded truck movements, however due to the linear nature of the development these truck movements would not be likely to all occur in one location.

Access - During construction, access tracks will be required to areas such as the pipeline easement and work areas. Existing roads, tracks and disturbed areas will be utilised as far as practicable to minimise disturbance to the surrounding areas. The selection of access track routes will be based on the objectives for the pipeline route selection and subject to the conditions of a Construction Environmental Management Plan (CEMP).

Workforce Accommodation – A workforce of around 350 personnel at peak period would be anticipated for the Project. Pipeline construction activities, as set out below, require a variety of skills sets from general earthworks through to specialised welding techniques. There are a limited number of companies that can provide the specialised techniques and therefore pipeline construction crews travel around the country from project to project and source generalised skills locally where appropriate. Accommodation of construction crews varies depending upon the size and location of the project. It is anticipated, due to the proximity to populated areas, that the construction crew for this Project would be able to be accommodated in existing local accommodation.

Clearing - An impact width of generally 30 metres will be required for construction through open country (refer Figure 3-1). Breaks will be left in stockpiled vegetation to allow continued access for fence lines, tracks, stock and drainage lines. Gates will be installed where fence lines are required to be breached. Large mature trees will be preserved wherever practicable.

Figure 3-1 Typical Right-of-Way Layout – Open country



Grading - The ROW will be levelled to the required gradient using graders, excavators and bulldozers. Topsoil will be removed, where required, and stockpiled separately for reuse during rehabilitation (Figure 3-1).