8 LAND USE

8.1 INTRODUCTION

This chapter outlines issues associated with land use of the proposed western coal seam methane (CSM) water supply pipeline (the proposed pipeline) for the Wandoan Coal Project (the Project).

The main topics addressed include land tenure, native title, land use and planning provisions, contaminated land, land suitability and agricultural lands, stock routes, and sensitive environmental areas and Matters of National Environmental Significance (MNES).

8.2 METHODOLOGY OF ASSESSMENT

8.2.1 LAND USE AND PLANNING PROVISIONS

The impact assessment of the proposed pipeline on land use and statutory planning was undertaken through a desktop analysis of:

- the provisions of the Planning Scheme for Taroom Shire 2006, Planning Scheme for Bungil Shire 2006, and the Central Queensland Regional Growth Management Framework 2002 (CQRGMF) (to determine the land use and planning provisions applicable to the pipeline alignment)
- the provisions of State legislation to determine the impacts on State-controlled roads and State land
- the provisions of the Taroom Stock Route Network Management Plan, 2005 to 2009 and Bungil Stock Route Network Management Plan, 2005 to 2009, to determine the composition of the stock route network in the area of the proposed pipeline alignment
- the 'interactive resource and tenure maps' administered by the Department of Mines and Energy, to determine mining/petroleum tenements within the vicinity of the pipeline alignment.

8.2.2 CONTAMINATED LAND

To investigate the potential for contamination within the proposed pipeline, a Stage 1 Environmental Site Assessment (Stage 1 ESA) was undertaken in accordance with the following:

- National Environment Protection Council Service Corporation, 1999, National Environment Protection (Assessment of Site Contamination) Measure, National Environment Protection Council Service Corporation, Adelaide.
- Environmental Protection Agency, 1998, Draft Guidelines for the Assessment and Management of Contaminated Land in Queensland, Queensland Government, Queensland.
- Australian Standards, 2005, AS4482.1-2005 Guide to the Sampling and Investigation of Potentially Contaminated Soil – Part 1: Non-volatile and Semi-volatile compounds.
- Coordinator-General, 2008, Wandoan Coal Project – Terms of Reference for an Environmental Impact Statement.

The Stage 1 ESA land contamination investigation involved a desktop review, referred to as a Limited Stage 1 Environmental Site Assessment (ESA). The aim of the Stage 1 ESA was to identify past and present potentially contaminating activities. The following sources of information were utilised during this investigation:

- historical aerial photography
- current and historical titles
- records held by local council
- records held by local historical societies
- records held by John Oxley library
- reports held by Parsons Brinckerhoff related to the Wandoan Coal Project
- search of Environmental Protection Agency's (QLD EPA) Environmental Management Register (EMR) and Contaminated Land Register (CLR)
- anecdotal information provided by property owners, where forthcoming.

Potential land contamination from the construction and operation of the mine was also investigated based on the activities proposed for the Project.

8.3 EXISTING ENVIRONMENT

8.3.1 TENURE

Mineral and Petroleum Tenements

A number of mining, petroleum and gas related developments are located within the 10 km of the proposed pipeline, including:

- Mineral Development Licence (MDL) number 373, held by Taroom Coal Pty Ltd, located approximately 6.5 km to the south of the proposed pipeline
- MDLs 221 and 222, held by Xstrata Coal Qld Ltd, which the pipeline will service
- Mining Lease Areas (MLAs) 50230, 50231, and 50229, held by Xstrata Coal Qld Ltd, in association with MDLs 221 and 222
- Petroleum Leases (PL) 195, 203 and 204, as part of the Spring Gully coal seam methane fields operated by Origin and Santos (from which the western CSM water supply will be sourced)
- a small number of coal seam gas wells (in various stages of exploration or development) which occur sporadically across the southern portion of the study area.

The alignment of the proposed pipeline has been selected to avoid, where possible, traversing mineral and petroleum tenements. The pipeline would not traverse any existing MDLs outside of the Wandoan MLA areas. Refer to Figure 8-1-V3.3 for the location of the proposed pipeline alignment. Note that figures/documents with numbering ending in V3.3, for example, refer to figures/documents contained in Volume 3, Book 3 of the EIS.

Property Tenures

The alignment of the proposed pipeline has been selected to be located within private properties which adjoin the northern side of road reserves. This approach aims to minimise disturbance to the travelling public, minimise the clearing of vegetation, and minimise

disturbance to properties by remaining close to the property boundary, as depicted in Figure 8-2-V3.3.

A total of 16 properties of freehold tenure and 1 property of leasehold tenure will be affected by the pipeline, as well as 1 parcel of reserve. The pipeline route also crosses some watercourses and roads. A summary of the pipeline route can be found in Appendix 8-2-V3.4 and Figure 8-2-V3.3. The preferred pipeline alignment is indicative only, and is subject to detailed design, landowner negotiations and commercial arrangements.

8.3.2 NATIVE TITLE

A preliminary native title extinguishment assessment for the indicative pipeline alignment has been undertaken, to determine whether native title has been extinguished on the basis of tenure.

On the basis of current title searches and limited historical title searches, the Wandoan Joint Venture (WJV) is of the preliminary view that native title has been extinguished over the majority of the indicative pipeline alignment. The WJV is currently continuing the native title extinguishment analysis to finalise the position on extinguishment.

Native title issues will be assessed fully once a preferred water supply option is selected by the WJV, as the proposed pipeline is one of three water supply options for the Project.

At the time of preparation of the EIS, it was noted that the registered native title claimants for land comprising the pipeline alignment were the Iman People #2 (native title claim QC97/55). This claim is a 'registered claim' for the purposes of the *Native Title Act 1993* (Cth).

The registration of the Iman People #2 native title claim means that it has passed a basic procedural merit assessment to attain 'registered' status.

The existence of the native title claim does not mean that native title rights automatically exist over lands comprising the pipeline alignment. The existence of native title rights and interests over areas where it has not already been determined that native title has been extinguished on the basis of tenure, will only be able to be determined through the Court process.

8.3.3 LAND USE AND PLANNING PROVISIONS

The proposed pipeline alignment is located within the Dalby Regional Council and Roma Regional Council local government areas. Prior to local government amalgamations on 15 March 2008, the pipeline alignment was within the former Taroom Shire and Bungil Shire local government areas, as demonstrated in Figure 8-2-V3.3.

Existing land use

The proposed pipeline alignment is located within predominantly rural areas of the Dalby Regional Council and Roma Regional Council areas. The proposed pipeline alignment will generally span the geographic area between:

- the main township of Wandoan, being in the vicinity of the eastern termination of the proposed pipeline

- the existing reverse osmosis plant at the Spring Gully coal seam methane fields, in the former Bungil Shire local government area.

The Spring Gully coal seam gas wells, operated by Origin and Santos, are located within the western portion of the proposed pipeline area, approximately 100 km to the west of Wandoan. The western termination of the proposed pipeline will connect to infrastructure associated with the Spring Gully reverse osmosis treatment plant in the vicinity of the coal gas seam wells.

The proposed pipeline, beginning in the vicinity of the coal seam gas wells, traverses a number of lots and is developed alongside road reserve, including Roma-Taroom Road, Goldens Bimbadeen Road, and Bundi Ryalls Road, until its subsequent termination point at the raw water storage dam in the MLA areas (refer to Figure 8-2-V3.3). For further information on the alignment of the proposed pipeline, refer to Chapter 6 Project Operations of Volume 3.

Land along the proposed pipeline alignment is predominantly used for rural pursuits, typically grazing and cultivation. In support of the rural pursuits, it is noted that there are a number of rural homesteads located on properties within, and surrounding, the pipeline alignment, as depicted in Figure 8-3-V3.3.

Two significant State Forests are located approximately 10 km south of the MLA areas. To avoid affecting areas of State Forest and causing potential negative impacts on the ecosystems within the area, a pipeline alignment was selected that was away from these areas.

As discussed in section 8.3.1, various mining, petroleum and gas related developments exist within the vicinity of the proposed pipeline, including exploration, development and appraisal coal seam gas wells and mineral and petroleum tenures (see Figure 8-1-V3.3). A number of existing gas pipelines are located within the former Bungil Shire local government area, in the vicinity of the proposed pipeline. As a result, the proposed pipeline will be configured to avoid disturbance to one or more of the existing gas pipelines.

Planning Provisions (existing and future development)

Regional Planning Framework

The CQRGMF provides a regional approach to planning as a joint government, community and industry project that aims to develop a long-term strategic plan to guide management, growth and development of the region over the following 20 years. However, given that it is a strategic approach to land use planning and does not regulate explicit land use outcomes on a given allotment, it is not discussed in detail here.

The proposed pipeline does however comply with, and does not compromise the achievement of, the regional land use intentions of the CQRGMF. Refer to Appendix 8-1-V3.4 for further detail.

Local Government Planning Framework

Prior to local government amalgamations on 15 March 2008, the proposed pipeline alignment traverses an area that was formerly within the Taroom Shire and the Bungil Shire local government areas. Until planning schemes are adopted by the Dalby Regional

Council and Roma Regional Council that apply to each local government area in its entirety, the Planning Scheme for Taroom Shire 2006 and the Planning Scheme for Bungil Shire 2006 continue to apply to regulate land use within in the geographical area of those former local governments. The planning schemes include:

- measures to regulate development applications for individual land uses, in the form of land use (development) definitions, land use 'zones', tables of assessment, and accompanying zone codes which regulate aspects of use (refer to part 1, divisions 2, 3 and 4 of the Bungil Shire planning scheme; parts 1, 2 and 4 of the Taroom Shire planning scheme)
- Desired Environmental Outcomes (DEOs), to enable the strategic direction for the planning scheme to be established (refer to part 3 Strategic Direction of the planning schemes).

For land within the proposed pipeline alignment, existing lawful land uses are recognised under Chapter 1, part 4 of the *Integrated Planning Act 1997* (IPA) and through their inclusion in a suitable land designation in the planning scheme (such as inclusion of an existing pastoral use in the Rural Zone). It is only through future assessable, self assessable or exempt development, under either the planning scheme or IPA that the existing land use pattern will change.

Taroom Planning Scheme

The portion of the proposed pipeline alignment located within the former Taroom Shire local government area is included in the Rural Zone as per the Taroom Shire planning scheme. The Taroom Shire planning scheme describes the intent of the Rural Zone, as being to '*generally ensure that the zone is utilised appropriately for rural activities, for both current and future such uses*'. Further, the intent of the Rural Zone Code is also to '*generally ensure that the amenity of rural land is maintained, and that development within the Zone does not prejudice extractive or mining resources*' (Taroom planning scheme, 2006, p.4.1.4).

At the local government level, strategic planning for future land uses is reliant on the planning scheme DEOs, with support from the planning scheme measures, for example, a Zone Code or inclusion of an allotment in an appropriate zone. Of relevance to the area comprising, and immediately adjoining, the proposed alignment, the following Taroom Shire planning scheme DEOs are noted:

> *3.1 The Environment*
>
> *In Taroom Shire, ecological systems, the unique natural environment… and items and places of cultural and heritage significance are protected and enhanced by development.*
>
> - *Development is managed to minimise any adverse impacts on air and water quality, to prevent land degradation, loss of habitat and biodiversity and to protect riparian areas, ridgelines and escarpments.*
> - *Protected areas…, local items and places of cultural significance (including areas along water courses) are identified to ensure their environmental, landscape values and historic significance are protected and enhanced through compatible development.*

3.2 Economic Development

The economy of Taroom Shire is enhanced and diversified through the sustainable use of natural resources (including land and mineral resources) and through a wide range of other economic activities that respect the hierarchy of the urban centres Taroom and Wandoan…

- *Productive rural land, rural industries and natural features (including mineral and extractive resources… are protected…*

3.3 Community and Services

Development… is consistent with community expectations and needs, and contributes to community wellbeing through the enhancement of core community elements (including the built environment, services, facilities and infrastructure).

- *The settlement pattern is logical and sequenced and the built environment contributes to the overall rural amenity and character…'* (Taroom Shire planning scheme, 2006, p.3.1).

Bungil Planning Scheme

Where the pipeline alignment is located within the former Bungil Shire local government area, it is included in the Rural Zone of the Bungil Shire planning scheme. The Bungil Shire planning scheme describes the intent of the Rural Zone, as being to generally ensure the zone is utilised appropriately for rural activities, for both current and future uses. In particular, the intent of Rural Zone Code of the Bungil Shire planning scheme is to ensure that development within the Zone:

- maintains and enhances the amenity of the zone
- ensures areas of conservation importance, including cultural and high landscape values, are protected
- reflects the economic potential of carrying out agricultural activities within the rural area (Bungil Shire planning scheme, 2006, p.29).

Of relevance to the area comprising, and immediately adjoining, the proposed alignment, the following Bungil Shire planning scheme DEOs are noted:

'3.1
3(a) Environment

(i) The areas of high scenic amenity, remnant vegetation, wetlands, fauna habitats and wildlife corridors and regionally significant open space in the Shire are protected.

(ii) Places, areas or sites identified as being susceptible to land degradation, including contamination, erosion, salinity and landslip, are protected and further degradation is minimised...

3(b) Economic

(i) Good Quality Agricultural Land is protected as a major economic resource for the region.

(ii) Key Resource Areas, extractive resources, petroleum, gas and mineral resources are protected as a major economic resource for the region…

(iv) Rural business opportunities are improved to protect and value-add to the existing rural based economy.

3(c) Community Well-Being & Lifestyle…

(ii) Rural residential and urban residential development occurs in distinct localities that provide a sense of community, amenity, services, and a safe, affordable living environment, whilst maintaining rural amenity...' (Bungil Shire planning scheme, 2006, p.10).

The Taroom Shire and the Bungil Shire planning schemes both state '*each desired environmental outcome is sought to be achieved to the extent practicable having regard to each of the other desired environmental outcomes*' (Taroom Shire planning scheme, 2006, p.3.1; Bungil Shire planning scheme, 2006, p.10).

Therefore, for the purposes of impact assessment, by taking a balanced, objective view of the above DEOs (from the Taroom Shire and Bungil Shire planning schemes) it can be inferred that the future strategic land use patterns may involve:

- retention of the agricultural context and rural amenity, with urban development contained in discrete consolidated townships such as Wandoan and Injune
- protection of significant environmental and cultural features and attributes, where not otherwise protected through inclusion in the Open Space and Recreation Zones of the planning schemes
- protection and winning of mineral and extractive resources within the Rural Zone areas of the Taroom Shire and Bungil Shire planning schemes.

In conclusion, the future strategic land use patterning in the areas associated with the proposed pipeline is expected to replicate that which is currently:

- indicated in the DEOs of both the Taroom Shire and Bungil Shire planning schemes
- depicted in planning scheme Zoning Map Sheet 1 of 4 of Taroom Shire planning scheme
- depicted in planning scheme Zoning Map P1 – Whole of Shire – Rural Zone of Bungil Shire planning scheme.

8.3.4 CONTAMINATED LAND

A description of the existing environment associated with contaminated land is provided in the technical report attached in TR 8-1-V3.5. In summary the results of the study indicate that a range of potentially contaminating activities has occurred, or currently occur on lands associated with the proposed pipeline corridor area. A site inspection and soil sampling program has been recommended in the technical report (TR 8-1-V3.5) to confirm the potential extent of the contamination issues identified. The contaminants of concern with relation to the identified potential contaminating activities are as follows:

- land used for agricultural activities may contain soil impacts from pesticide and herbicide usage (organochlorine and organophosphorus pesticides (OC/OPP)), fuel storage (total petroleum hydrocarbons (TPH), benzene, toluene, ethyl benzene and

xylene (BTEX) and lead), waste burial (heavy metals, OC/OPP, TPH and BTEX) and livestock dips (OC/OPP and arsenic)

- land listed on the EMR for operation of a stock dip may contain soil impacts from pesticides (OC/OPP) and arsenic.

In addition to the above, lots traversed by the proposed pipeline alignment were searched for listings on the QLD EPA's Environmental Management Register (EMR) and Contaminated Land Register (CLR) for notifiable activities. No properties were listed on the CMR and the details of properties listed on the EMR are shown in Table 8-1.

Table 8-1: EMR/CLR search results

Lot and plan details	Environmental Management Register	Contaminated Land Register
Lot 5 SP124669	Is listed on the register as the lot has been subdivided from a larger lot which was listed on the EMR for a live stock dip or cattle race.	Not listed on the register
Lot 2 A409	Is listed on the register for live stock dip or cattle race	Not listed on the register
Lot 8 on AB127	Is listed on the register for live stock dip or cattle race	Not listed on the register
Lot 6 RP866852	Is listed on the register for live stock dip or cattle race	Not listed on the register

Interviews with a number of property owners identified a number of activities with the potential to result in contamination. The results are shown in Table 8-2.

Table 8-2: Summary of phone interviews with site owners

Lot and plan details	Buried waste	Pesticide usage	Petroleum products	Stock dip or cattle race
Lot 5 SP124669	Unknown	Unknown	Unknown	Unknown
Lot 2 AB121	Yes	Yes – herbicides (Roundup)	Yes – diesel and unleaded petroleum	Yes – used 20 years ago
Lot 3 AB121	Yes – incinerated on site	Yes – herbicides (Roundup) and pesticides	Yes – 2x1.5kL diesel	No
Lot 58 FT556 Lot 132 SP121742 Lot 131 SP121742	Yes	Yes – herbicides (Roundup) and pesticides	Yes – diesel and unleaded petroleum	Yes – filled in
Lot 24 SP174422	Yes – still in use	Yes – herbicides (roundup) and pesticides	Yes – 30kL, 10kL and 2.2kL diesel and 2x2.2kL unleaded petroleum	Yes – not used since 1990
Lot 2 A409	Yes	Yes – herbicides and pesticides	Yes – 5x2kL diesel, 1kL unleaded petroleum	Yes – filled in
Lot 6 AB190	Yes	Yes – herbicides (Roundup, Ally and	Yes – diesel (mobile tanks) and	Yes – filled in

Lot and plan details	Buried waste	Pesticide usage	Petroleum products	Stock dip or cattle race
		others) and pesticides	1kL unleaded petroleum	
Lot 9 AB127	Yes	Yes – herbicides (24D, LVE, Roundup)	Yes – 8kL & 2kL diesel AGST, 2x2kL unleaded petroleum AGST	Yes – filled in 20 years ago
Lot 8 AB127	Yes	Yes – herbicide (Roundup), pesticides (poured onto cattle)	Yes – 22.8kL diesel, 22.8kL unleaded petroleum	Yes – filled in 10 years ago
Lot 1 A409	Yes – since the 1960's	Yes – herbicide (Roundup) and pesticides (Dectomax)	Yes – 3x2.4kL & 2x1.2kL diesel	Yes – filled in
Lot 6 RP866852	Yes – since 1948	Yes – herbicides and pesticides	Yes – 2x2.5kL diesel, 2.5kL unleaded petroleum	Yes – used
Lot 5 SP110490	Unknown	Unknown	Unknown	Unknown

Based on anecdotal evidence provided, the past and current activities undertaken on the property lots that have the potential for contamination include the burying of waste, use of pesticides and herbicides, petroleum product storage and livestock dips.

8.3.5 LAND SUITABILITY AND AGRICULTURAL LANDS

Chapter 9 Geology, Mineral Resources, Overburden and Soils, section 9.3.7 discusses land suitability and agricultural lands, with further reference to the associated technical report.

8.3.6 STOCK ROUTES

Under the *Land Protection (Pest and Stock Route Management) Act 2000* (LP Act), the integrity of stock route networks (SRN) must be maintained by the Project.

Under chapter 3, part 3 of the LP Act, the former Taroom Shire and Bungil Shire local governments each prepared a separate document titled Stock Route Network Management Plan, 2005 to 2009 (SRN Management Plan). These plans are generally intended to '*improve the management of the SRN so that the impacts of stock on the resources of the SRN are minimised*' (Taroom Shire Stock Route Network Management Plan, 2005-2009, 2005, p.7; Bungil Shire Council Stock Route Network Management Plan, 2005-2009, 2007, p.5).

The following listed stock route infrastructure is located within 10 km of the pipeline alignment and depicted on Figure 8-4-V3.3:

- Jackson – Wandoan Road (stock route number: U708 [inactive stock route])
- Bundi Road (stock route number: U734 [inactive stock route])
- Canal Clifford Road (stock route number: M705)
- Roma-Taroom Road (stock route number: S707 [primary stock route])
- Kooringa Road (stock route number: U792).

Note that stock route numbers have been derived from the Queensland Stock Routes and Water Points Mapping, and the respective SRN Management Plan, 2005 to 2009 for the former Taroom and Bungil Shire local governments. Road names quoted are taken to be the nearest likely carriageway to each stock route.

The proposed pipeline will be required to be constructed within land or road reserve forming part of the SRN being:

- two stock routes that are located on State-controlled road reserves
- three stock routes located on local government controlled roads.

8.3.7 SENSITIVE ENVIRONMENTAL AREAS AND MNES

Sensitive environmental areas and MNES are discussed in Chapter 17A Terrestrial Ecology, and specifically summarised in Attachment J of the technical report in TR 17A-1-V3.5. Discussion on the existing environment associated with MNES is provided in Chapter 17A Terrestrial Ecology and the technical report.

8.4 DESCRIPTION OF PROPOSED DEVELOPMENT

In relation to the land use, planning provisions and contaminated land, this chapter examines how the proposed pipeline will impact upon the existing tenures, potential native title issues, planning provisions, known areas of land contamination and stock routes.

8.5 POTENTIAL IMPACTS

8.5.1 TENURE

Mineral and Petroleum Tenements

Where the proposed pipeline is developed on land subject to a petroleum or mining tenement, the proposed pipeline alignment could have the potential to sterilise a small portion of the tenement resource.

The proposed pipeline alignment would generally need to be protected from mining and development encroachment, to ensure operational integrity of the pipeline. Therefore, any resources beneath the alignment may be potentially sterilised and not able to be won through mining activities.

Property Tenures

The proposed pipeline will be developed within an easement registered on the associated land title. As access to the proposed pipeline may be required for maintenance purposes over the lifetime of the pipeline, some restrictions may be placed on the properties affected by the easements. These restrictions include, but are not limited to:

- constraints on the subdivision of properties
- ensuring that construction on or near land affected by the easement continues to allow reasonable access to the easement.

8.5.2 NATIVE TITLE

The proposed pipeline will be located within an easement on land, rather than land being purchased.

If it cannot be determined that native title has been extinguished over the entire pipeline route, then the pipeline has the potential to impact native title rights and interests (if they are eventually found to exist in the area, which can only be conclusively determined through the native title claim process in the Federal Court). However, if there is the potential for native title rights and interests to be impacted, the WJV will comply with the proper legal processes in relation to native title for the pipeline.

Native title issues will be addressed fully once a preferred water supply option is selected by the WJV.

8.5.3 LAND USE AND PLANNING PROVISIONS

The construction of the proposed pipeline has the potential to impose predominantly short-term impacts on existing land uses. However, the operation and maintenance of the pipeline will have minimal impact on existing land uses, due to the placement of the pipeline underground.

Potential minor impacts from the construction of the proposed pipeline on existing land uses include, but are not limited to:

- the temporary interruption in use of agricultural lands for cropping and grazing activities, for example as a result of trenching and materials lay-down areas
- the effects on the way daily activities are carried out such as use of alternative stock routes for cattle movement, altered domestic travel patterns from temporarily or partially closed roads, and interruptions to private property access
- short term environmental impacts to land uses, particularly sensitive receptors, located in the vicinity of the proposed pipeline alignment, including impacts on visual amenity, vibration, and air quality.

The construction phase of the pipeline could potentially impact upon land use, mainly through physical disruptions to land use activities, and from potential environmental impacts. Further information on potential environmental impacts of the pipeline can be found in the following chapters of Volume 3 of the EIS:

- air quality (Chapter 13)
- noise (Chapter 15)
- vibration (Chapter 16)
- ecology (Chapters 17A and 17B)
- visual amenity (Chapter 19)
- cultural heritage (Chapter 20)
- social (Chapter 21)
- economic impacts (Chapter 22).

Impacts will be minimal once the construction works are completed, particularly given that routine scheduled maintenance is not likely to have a significant impact on land uses (refer to Chapter 6, Volume 3 for further detail). Therefore, the potential impacts are generally localised to the construction phase of the proposed pipeline.

8.5.4 CONTAMINATED LAND

Land contamination could potentially occur as a result of construction activities associated with the proposed pipeline, as follows:

- disturbance of previously contaminated soil
- spillage of hydrocarbons or other chemicals associated with vehicles/machinery refuelling or maintenance
- spillage of chemicals associated with pipeline construction (e.g. coating compounds)
- spillage or leakage of hydrostatic test water (potentially saline).

8.5.5 LAND SUITABILITY AND AGRICULTURAL LANDS

Potential impacts associated with land suitability and agricultural lands are discussed in Chapter 9 Geology, Mineral Resources, Overburden and Soils, section 9.5.5 and the associated technical report.

8.5.6 STOCK ROUTE IMPACTS

Stock Route Network (SRN) infrastructure within the proposed pipeline alignment forms part of the overall network covered by the separate SRN Management Plan, 2005 to 2009 of the former Bungil Shire and Taroom Shire local governments.

Whilst the proposed pipeline will be constructed within land or road reserve forming part of the SRN, the impacts of the pipeline on the SRN are not likely to be significant as:

- some components of the SRN may be closed and/or relocated as part of the MLA areas, as discussed in Volume 1, Chapter 8 of the EIS
- the pipeline construction works in any given location are expected to be of short duration, as construction progressively occurs along the pipeline alignment
- the pipeline is proposed to be predominantly underground and once constructed, will not generally impede the use of SRN components.

8.6 MITIGATION MEASURES

8.6.1 TENURE

Mineral and Petroleum Tenements and Property Tenures

The proposed pipeline alignment was initially selected to avoid, where possible, the necessity for construction of works within properties, including land subject to petroleum and mineral tenements. Hence, much of the impact of the proposed pipeline on property tenure, and mineral and petroleum tenements has already been mitigated. During the detailed design process, the finalised pipeline alignment will be developed to accommodate tenement requirements so as to prevent or minimise potential sterilisation of a resource, in consultation with the tenement holder.

However, where an easement within a property is required to facilitate the pipeline construction, the WJV will:

- enter into an agreement with the land owner regarding the easement, and discuss the easement with the tenement holder (where applicable)

- agree with the land owner about compensation and its form.

8.6.2 NATIVE TITLE

Where it can be determined that native title has been extinguished over particular areas, then native title will not be a relevant consideration for those areas and no mitigation measures would be required.

However, where it cannot be determined that native title has been extinguished over particular areas, and the Project therefore has the potential to impact native title rights and interests, the impacts would be mitigated through following the appropriate "future act" process under the *Native Title Act 1993* (Cth) (NTA).

8.6.3 LAND USE AND PLANNING PROVISIONS

As the proposed pipeline will be located underground, impacts on land uses are expected to be limited to the construction phase. The pipeline's impacts on land uses will be negligible during the operational phase, and generally associated with routine pipeline maintenance only.

The measures required to mitigate impacts on land uses arising from construction and operation of the proposed pipeline include, but are not limited to:

- implementing a traffic management plan to control traffic, where work would occur in road reserves, or potentially affects the travelling public
- ensuring all land trenched for the pipe laying is back-filled with original excavated material and rehabilitated to allow for the use of that land to continue upon completion of construction
- managing potential environmental impacts (such as noise and air emissions), particularly where located in close proximity to sensitive receptors (refer to other relevant EIS chapters for details of mitigation measures for these impacts).

8.6.4 CONTAMINATED LAND

To reduce potential for land and water contamination posed by waste, a waste management plan will be used to manage potential contamination from the construction of the pipeline. Mitigation measures for the identified impacts are discussed below.

Historical land uses

The extent of potential contamination impacts will be investigated where construction activities are to be undertaken. A soil sampling program will be implemented on those Lots identified as having the potential for contamination and based on the findings of the soil sampling program, mitigation measures will, if necessary, be established. Where identified contaminated land is to be disturbed as a results of construction activities, the impacted soil is to be managed under a Site Management Plan (SMP). The site will also require listing on the EMR via communication with the EPA.

Construction

Construction activities will be conducted in compliance with the Environmental Management Plan (EM Plan) developed as part of this EIS (refer Chapter 27).

8.6.5 LAND SUITABILITY AND AGRICULTURAL LANDS

Mitigation measures associated with land suitability and agricultural lands are discussed in Chapter 9 Geology, Mineral Resources, Overburden and Soils, section 9.6.4 and the associated technical report.

8.6.6 STOCK ROUTES

The temporary closure of components of the SRN will be required to facilitate construction of the proposed pipeline.

Discussions will occur with the Dalby Regional Council, Roma Regional Council, the Department of Natural Resources and Water (NRW) and the Department of Main Roads (for proposed works on SRN components that use State-controlled roads) to discuss the timing and duration of the temporary closure of the SRN components, thereby minimising the potential impacts on stock movement.

Given that the impact of the proposed pipeline on the SRN network is only temporary, no mitigation measures are considered to be required other than appropriate management measures. The measures required to mitigate impacts on existing stock routes arising from construction and operation of the pipeline include, but are not limited to:

- implementing a management plan to control the use of stock routes, where work would occur in road reserves that are also used for the purposes of moving stock
- ensuring all land trenched for the pipe laying is back-filled with original excavated material and rehabilitated to allow for the use of the stock routes to continue upon completion of construction
- managing potential environmental impacts (such as noise and air emissions), particularly where located in close proximity to sensitive receptors (refer to other EIS chapters for details of mitigation measures for these impacts).

8.6.7 SENSITIVE ENVIRONMENTAL AREAS AND MNES

Sensitive environmental areas and MNES are discussed in Chapter 17A Terrestrial Ecology, and specifically summarised in Attachment J of the technical report in TR 17A-1-V3.5. Discussion on the mitigation measures that will include areas associated with MNES is provided in Chapter 17A Terrestrial Ecology, section 17A.5, and the technical report.

8.7 RESIDUAL IMPACTS

Upon impact mitigation measures being adopted for the pipeline construction, impacts on land uses will be limited to routine maintenance of the pipeline (refer to Chapter 6, Volume 3 for further detail). Pipeline easements traversing private properties will require reasonable access for maintenance purposes, and thus some forms on development over these properties may be restricted in the future.

8.8 REFERENCES

Bungil Shire Council (2006) *Planning Scheme for Bungil Shire Council Area, 2006*.

Bungil Shire Council (2007) *Stock Route Network Management Plan, 2005 to 2009*.

Department of Local Government and Planning (2002) *Central Queensland Regional Growth Management Framework*.

Taroom Shire Council (2005) *Stock Route Network Management Plan, 2005 to 2009*.

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