8 LAND USE

8.1 INTRODUCTION

This chapter outlines issues associated with land use of the proposed southern 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 Murilla Shire 2005, 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 the Murilla Stock Route Network Management Plan 2005 to 2009, to determine the composition of the stock route network in the area of the pipeline alignment
- the '*Interactive Resource and Tenure Maps'* administered by the Department of Mines and Energy, to determine mining and 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 10 km of the proposed pipeline, including:

- exploration, development and appraisal coal seam gas wells, typically located east of Gurulmundi and north east of Gulugaba
- petroleum lease (PL) application tenure numbers 216 and 267 (holder: Origin Energy CSG Ltd) principally covering the geographic area around Miles, within which the pipeline will be located
- petroleum lease tenure no 171 (holder Roma Petroleum) to the west of Gulugaba township
- APT petroleum pipeline tenure no 74 (APT Petroleum Pipelines Ltd) typically aligned north-south and intersecting the proposed pipeline alignment
- mining lease (ML) numbers 5902, 5905, 5898 and 5906 (principal holder: Unimin Australia Ltd) located west of the Gurulmundi township
- mineral development licence (MDL) tenure number 187 (principal holder: Surat Coal Pty Ltd)
- mineral development licence tenure numbers 223 and 224 (Xstrata Coal Qld Ltd).

The proposed pipeline generally avoids traversing land containing MLs, MDLs, and PLs. However, where the proposed pipeline is required to pass through a lease area, it has been located within existing road reserves to minimise sterilisation of possible mineral and petroleum resources (Figure 8-1-V2.3). Note that figures/documents with numbering ending in V2.3, for example, refer to figures/documents contained in Volume 2, Book 3 of the EIS.

Property Tenures

The proposed pipeline alignment has been selected to minimise the amount of the pipeline required to be developed within private allotments. The pipeline is therefore predominantly developed within road reserves of local government and State-controlled roads and existing transmission line easements that are located within private properties (refer to Figure 8-2-V2.3).

A total of 58.8 km of the length of the pipeline (63.36%) will be co-located, with 50.1km being located within road reserve and 8.7km being located within transmission line easement. In addition, a total of 14 properties of freehold tenure and 5 properties of leasehold tenure will be affected by the pipeline, as well as 1 parcel of reserve and 1 parcel of unallocated state land. The pipeline route also crosses a number of watercourses and roads. A summary of the pipeline route can be found in Appendix 8-2-V2.4 and Figure 8-2-V2.3. The preferred pipeline route 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 route 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 route. There are some small parcels of land over which it cannot be determined on the basis of tenure that native title has been extinguished at this stage. 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 Proponent, as the proposed pipeline is one of three water supply options for the Project.

At the time of preparation of the Environmental Impact Study (EIS), it was noted that the Iman People #2 (QC 97/55) were registered native title claimants for part of the pipeline alignment. The Barunggam People (QC 99/5) previously had a registered claim over part of the pipeline alignment, however that claim has been dismissed. The Iman People #2 claim is a *'registered claims'* for the purposes of the *Native Title Act 1993* (Cth).

The registration of the Iman People #2 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 local government area. Prior to local government amalgamations on 15 March 2008, the pipeline alignment was formerly within the Taroom and Murilla Shire local government areas, as depicted in Figure 8-2-V2.3.

Existing land use

The pipeline alignment is located within a predominantly rural area of the Dalby Regional Council local government area, and generally spanning the geographic area between the main townships of:

- Wandoan, being in the vicinity of the northern termination of the proposed pipeline
- Miles, being in the vicinity of the southern termination of the proposed pipeline.

Between these main townships and in proximity to the pipeline route are located the smaller townships of Gurulmundi, Giligulgul and Dalwogon. The alignment of the pipeline has been selected to avoid, where possible, passing through existing townships.

The Condamine Power Station, which is currently under construction, is located approximately 8 km east of Miles on the southern side of the Warrego Highway.

Commencing at the Condamine Power Station, the pipeline progresses in a northerly direction to an existing high voltage transmission line easement, along which it travels (to the west) until it intersects with the road reserve of the Leichhardt Highway, avoiding the township of Miles. Travelling north along the eastern road reserve of the Leichhardt Highway, the pipeline then deviates from the Leichhardt Highway at Bailey's Road, south of Gurulmundi, and joins Fosters Road north of the Giligulgul township before proceeding in a northerly direction to the MLA areas (refer to Figure 8-2-V2.3).

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 adjacent to the proposed pipeline easement, as depicted in Figure 8-3-V2.3.

A number of significant timber forests (State Forests) are located approximately 22km to the south of the Wandoan Mining Lease Application (MLA) Areas. To avoid traversing areas of State Forest and causing potential negative impacts on forestry areas, the route of the pipeline was selected within existing road reserves and transmission line easements.

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 mining and petroleum tenures (refer to Figure 8-1-V2.3). The pipeline does not traverse any existing MDLs outside of the MLA areas. The alignment of the pipeline traverses 23.98 km of existing PLs, and 9.86 km of existing mining resource areas.

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 pipeline alignment was formerly located within the Taroom and Murilla Shire local government areas. Until a planning scheme is adopted by the Dalby Regional Council that applies to the entire Dalby Regional Council local government area, the Planning Scheme for Taroom Shire 2006 and Planning Scheme for Murilla Shire 2006 continue to respectively apply to regulating land use in the former areas. 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 parts 1, 2 and 4 of the Taroom planning scheme; parts 1, 2 and 4 of the Murilla planning scheme)
- Desired Environmental Outcomes (DEOs), to enable the strategic direction for the planning schemes to be established (refer to Part 3, Strategic Direction of the respective 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 pipeline alignment located within the former Taroom Shire local government area is included in the Rural Zone of the Taroom planning scheme. The Taroom 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'.* Further, the intent of the Rural Zone Code contained within the Taroom planning scheme is 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).

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 and Reserves, Conservation Parks) 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 Planning Scheme, 2006).*

Murilla Planning Scheme

Where the proposed pipeline alignment is located within the former Murilla Shire local government area, it is included in the Rural Zone of the Murilla planning scheme. The Murilla 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 such uses'.* In particular, the intent of the Rural Zone Code contained within the Murilla 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

- does not prejudice extractive or mining resources (Murilla Planning Scheme, 2006).

Of relevance to the greater area in the vicinity of the proposed alignment, the following Murilla planning scheme DEOs are noted:

3.1 The Environment

In Murilla 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 the adverse impacts on air and water quality, to prevent land degradation, loss of habitat and biodiversity and to protect riparian areas.*
- *Protected areas… and areas, 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 Murilla Shire is enhanced and diversified through the sustainable use of natural resources (including soil and mineral resources) and through a wide range of other economic activities that respect the hierarchy of the urban centre and the small towns while utilising the unique locational attributes of the Shire...

- *Productive rural land, rural industries and natural features (including mineral and extractive resources…) are protected to reflect and enhance their continued economic potential and viability.*

3.3 Community and Services

Development in Murilla Shire reflects community expectations and needs, and contributes to community well-being 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 of Murilla Shire*
- *Infrastructure (including water, sewerage and roads) … meets engineering and environmental standards (Murilla Planning Scheme, 2005).*

Taroom planning scheme and Murilla planning scheme 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 planning scheme, 2006 p.3.1; Murilla planning scheme, 2006).

Therefore, for the purposes of impact assessment, taking a balanced, objective view of the above DEOs (from the Taroom and Murilla planning schemes) it can be inferred that the future strategic land use patterning in the vicinity of the proposed pipeline alignment may involve:

- retention of the agricultural context and rural amenity of the land in the vicinity of the proposed pipeline alignment, with urban development contained in discrete consolidated townships such as Wandoan and Miles

- protection of significant environmental and cultural features and attributes, including areas of State Forest, 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 Zones of the Taroom planning scheme and Murilla planning scheme areas.

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

- indicated in the DEOs of Taroom planning scheme and Murilla planning scheme
- depicted in Planning Scheme Zoning Map – Sheet 1 of 4 of Taroom planning scheme
- depicted in Zoning – Murilla Shire – Sheet 1 of 3 of Murilla 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-V2.5. 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-V2.5) 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:

- operation of commercial farming properties which could potentially store and use petroleum products, pesticides, herbicides and other chemicals
- potential presence of stock dips and buried waste on rural properties
- potential impacts associated with the railway line, where the alignment runs in close proximity to, or crosses the railway line

In addition to the above, lots traversed by the proposed pipeline alignment were searched for listings on the Queensland EPA's Environmental Management Register (EMR) and Contaminated Land Register (CLR) for notifiable activities. No properties were listed on either Register.

A review of historical titles pertaining to the pipeline was undertaken to identify current and historical land uses which may have included potential contaminating activities on the site. Table 8-1 below provides a summary of potentially contaminating land use activities.

Table 8-1: Summary of potentially contaminating land activities

Lot and certificate of titles details	Potentially contaminating activity
Lot 161 SP116399	Rail, transport infrastructure.
Lot 35 SP 125510	Hydrocarbon infrastructure.
	Rail, transport infrastructure.
Lot 28 CP885313	Leased by historical agricultural companies
Lot 47 BWR 107	Rail, transport infrastructure.
	Building services.

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 Council and former Murilla Shire local governments each prepared a separate document titled Stock Route Network Management Plan, 2005 to 2009 (SRN Management Plan). According to the SRN Management Plan for the former Taroom Shire local government area, the plan is 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, p.7).

The former Murilla Shire SRN Management Plan is intended to *'improve the management of the SRN so that the impacts of stock on the resources, users and values of the SRN are minimised, whilst minimising the impacts from other users of the network on travelling stock'* (Murilla Shire SRN Network Management Plan, 2005-2009, p.7).

The following listed SRN infrastructure is located within the vicinity of the pipeline alignment and depicted on Figure 8-4-V2.3:

- Jackson – Wandoan Road (stock route number: U708 [inactive stock route])
- Leichhardt Highway (stock route numbers: M423; M434)
- Myranga Road (stock route number: U433)
- Leichhardt Creek Taroom Road (stock route number: U434)
- Pelham Road (stock route number: U436)
- Warrego Highway (stock route number: S071).

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 Shire and Murilla Shire local governments. Road names quoted are taken to be the nearest likely carriageway to each stock route.

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

- three stock routes that are located on State-controlled road reserves
- four 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-V2.5. 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 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

Where the proposed pipeline deviates from a road reserve, it will be developed within an easement on the associated land title. As access to the proposed pipeline may be required for maintenance purposes over the lifetime of the mine, 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.

Considerable sections of the proposed pipeline easement will be co-located with other existing easements, including transmission line easements. The pipeline easement will continue to allow reasonable access to the existing easements it is located within or traverses.

8.5.2 NATIVE TITLE

The proposed pipeline will be located within an easement on land or in road reserves, 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 proposed pipeline underground.

Potential 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 pipeline alignment, including impacts on visual amenity, impacts on vibration, and air-shed impacts.

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 proposed pipeline can be found in the following Chapters of the EIS at Volume 2 of the EIS:

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

Impacts will be minimal once 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 2 for further detail). Therefore, the potential impacts are generally localised to the construction phase of the 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 Plans, 2005 to 2009* of the former Murilla 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.

8.5.7 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-V2.5. Discussion on the potential impacts associated with MNES is provided in Chapter 17A Terrestrial Ecology, section 17A.4.9, and the technical report.

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 pipeline include, but are not limited to:

- implementing a traffic management plan to control traffic, where work would occur in road reserves
- 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 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 as follows:

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 result 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 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, 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-V2.5. 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 2 for further detail). Pipeline easements traversing State land, Reserve, and other properties will require reasonable access for maintenance purposes, and thus some forms on development (including subdivision) over these properties may be restricted in the future.

8.8 REFERENCES

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

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

Murilla Shire Council (2006) *Planning Scheme for Murilla Shire, 2006*.

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

Taroom Shire Council (2006) *Planning Scheme for Taroom Shire, 2006*.