Appendix D

Cross Reference of EIS Guidelines to EIS Sections



Cross Reference of EIS Guidelines with Draft EIS Content

Cross Reference of EIS Guidelines with Draft EIS Content	
Guidelines	***EIS Section***
Specific Content Requirements The following content requirements are based on the Guidelines established in accordance with clause 8 of the *Environmental Assessment Act (1982) of the Northern Territory*.	
1. EXECUTIVE SUMMARY The Executive Summary should include a brief outline of the project and each chapter of the draft EIS, allowing the reader to obtain a clear understanding of the proposed project, its environmental implications and management objectives. The Executive Summary should be written as a stand-alone document, able to be reproduced on request by interested parties who may not wish to read or purchase the draft EIS as a whole.	**Executive Summary**
2. THE PROPOSAL	
2.1 General Information The EIS must provide detail of the proposed route (including associated ancillary activity sites) and it's surrounding environment to place the proposal in its local and regional context. As a minimum the EIS should include the following:	**Section 5.1, 5.2, 6.2.1**
Meteorological data	**Section 6.2.2, Appendix B, Volume 2**
Topography	**Section 6.2.3**
Surrounding land uses (including the location of residential properties, communities, military reserves or exercise areas, extractive industries, road and rail reserves etc)	**Section 7.2-7.5, 7.8**
Description of relevant NT Planning Scheme and Local Government planning schemes, local laws and applicable policies	**Section 1.10,1.11, Appendix B, Volume 2**
Identification of any development approvals or infrastructure proposals likely to be required or affected by the proposed pipeline	**Section 1.10, 1.11**
Areas under native title claim and determinations of native title	**Section 7.2.1**
Soil types and properties along the route (including permeability, present of acid sulphate soils etc)	**Section 6.2.5, 6.2.6, Appendix C, Volume 2**
Ecological information including flora and fauna	**Section 6.3.1-6.3.4, Appendix H-K, Volume 2**
Availability of services/ infrastructure and accessibility; and Land use history (where relevant).	**Section 7.8**
The catchments in which the route lies should be described and maps included showing the proximity of the pipeline route and associated ancillary activities to any waterways. All waterbodies including drainage lines, dams, wetlands etc should be defined on the maps. The EIS should discuss the sensitivity and significance of the catchments from a public/ social, ecological and economic perspective.	**Section 6.2.9, 6.2.10, Appendix G, Volume 2**
2.2 Description of the Proposal The EIS should identify all the processes and activities intended for the pipeline (and associated ancillary activities) during the life of the project. This should include details of: -	**Section 5**
The size and type of the operation, the nature of the processes, products and by-products	**Section 5.1, 5.4, 5.7, 5.8**
Proposed layout for all operations, including the location and/or frequency of spur lines, cathodic protection points, sales taps, compressor stations, control valves (isolation points), and any other Project facilities and linkages to existing gas pipelines	**Sections 5.4-5.8**

Cross Reference of EIS Guidelines with Draft EIS Content	
Guidelines	***EIS Section***
The pipeline route (including the condensate pipeline), easements (including widths and access requirements) and alternative routes. In the event where the pipeline may need to be constructed above ground, define the reason and locality	**Section 4.4, 5,2, 5.9.3, 5.9.5, Volume 3**
All associated ancillary activities, including pipe storage areas, access roads, construction camps etc	**Section 5.5.3, 5.4, Figure 1–1**
All equipment, production processes and methods intended for the development	**Sections 5.4 – 5.7**
Measures to minimise the potential for third party interference	**Section 12.2, 13**
All chemicals, including fuels and the proposed methods for transportation, storage, use and emergency management of these substances	**Section 5.8, 12.2**
Project schedule	**Section 1.4, 5.3**
The proposed tenures under which the pipeline would be held. Details of any Territory or Commonwealth legislative processes required to grant the proposed tenure should also be discussed	**Section 1.8, 7.2**
Waste generation and/or by-products and their storage and disposal	**Section 5.8, 9.4, 12.2**
Pipeline design with regard to AS2885 and other legislative requirements	**Section 5.1, 5.4, 5.5.10, 5.7, Appendix E, Volume 2**
Employment opportunities (directly and indirectly, including Aboriginal people) in the different sections of the pipeline and at the different stages of the Project (construction and operation), likely sources of the workforce and level of skill required.	**Section 2.3, 10.11, 11.4**
The Accommodation requirements and arrangements for both construction and maintenance activities and any associated infrastructure and services	**Section 5.5.5, 5.5.8, 5.6.2, 5.7.4**
Transport systems, methods and routes for delivering pipeline construction and maintenance materials and other necessary goods and consumables. Information on the use of and impact on port, road and rail networks is required for the construction and operational phases; and	**Section 5.5.3, 5.5.8, 5.6.3, 5.7.5, 10.9**
The use and extent of other infrastructure required for the Project, including but not limited to gas, telecommunications and power. This includes:- ▪ Details of water supply, source, treatment and usage for both the construction and operational workforce, and pipeline testing.	**Section 5.5.12, 5.7.6, 5.7.6**
In addition to the above further information is required for the construction, operational and decommissioning phases of the project.	**Section 55, 5.6, 5.7, 5.9**
Pipeline Construction The EIS should provide details of: - Pipeline construction and pipeline laying methods including the depth of trenching and burial of pipeline, bedding materials (including source and potential for contaminants) etc.	**Sections 5.5**
The anticipated timing, duration and progress of pipe laying.	**Section 5.5.4, 5.5.8**
Possible interruption to other land activities, eg. interruption to road and or rail traffic. ▪ Provision and location of service corridors	**Section 5.5.8**
Pipeline Operation The EIS should provide details of: - Operational, maintenance and safety procedures, including pipeline control and monitoring, provisions for the shutdown of the pipeline and/or the venting of gas, in the event of leakage of gas, as well as provisions for public safety in such circumstances.	**Section 5.7**
Pipeline Decommissioning The EIS should provide details of: -	

Cross Reference of EIS Guidelines with Draft EIS Content	
Guidelines	***EIS Section***
Pipeline decommissioning methodologies and possible future land uses. This should include decommissioning and rehabilitation timetable for both temporary and permanent facilities.	**Section 5.10**
Proposed rehabilitation of pipeline construction areas, including camp sites and storage areas.	**Section 9.3.1, 12.2**
3. ALTERNATIVES Alternative proposals, which may still allow the objectives of the project to be met, should be discussed, detailing reasons for the selection and rejection of particular options. The short, medium and long-term potential beneficial and adverse impacts of each of the options should also be considered.	**Section 4**
Alternatives to be discussed should include: not proceeding with the proposal;	**Section 4.2**
alternative routes for the pipeline;	**Section 4.4**
alternative locations for components of proposal; and	**Section 4.4, 4.4.3**
alternative environmental management techniques.	**Sections 4.3, 4.5 and 4.6**
4 EXISTING ENVIRONMENT, POTENTIAL IMPACTS AND ENVIRONMENTAL SAFEGUARDS	
4.1 Preliminary Studies to describe the existing environment should be of a scope and standard sufficient to serve as a benchmark against which the impacts of the project may be assessed over an extended period. Control areas not impacted by the project should be included in proposed studies, and long-term monitoring locations should be established. This section of the draft EIS should include an in-depth description of the areas with the potential to or expected to be impacted by the project or any feasible alternatives and clearly identify, qualify and quantify, where appropriate, those potential environmental impacts. The section should also include an assessment of the level of significance of the impact, be it global, regional or local (eg. global and national implications of greenhouse gases and the localised impact of service roads or artificial water bodies). The possibility of remediation should also be discussed. Performance indicators for all potential impacts and remediation efforts should be identified. Environmental Management Plans will be need to be developed in order to minimise and manage impacts associated with the project. Cumulative impacts should also be discussed including the extent to which the environment is already affected by existing developments. The reliability and validity of forecasts and predictions, confidence limits and margins of error should be indicated as appropriate.	**Section 6,7,9,10, Appendix G-K, Volume 2**
4.2 Regional Setting Describe the project area, in terms of broad climatic zones, land terrain types, regional population centres, Aboriginal relationship to the land including cultural values, land use and land sensitivities.	**Section 6.2.1, 6.2.2, 6.2.3, 6.2.5, 7.3, 7.6**
4.3 Landform	**Section 6.2.3-6.2.5**
4.3.1 Baseline	
Provide suitably detailed maps showing topographic features, geological information and soil types along the proposed pipeline route;	**Figure 6-1, 6-2, 6-3, Appendix C, Volume 2**
geotechnical survey and seismic stability data from the pipeline route should be discussed and provided in an Appendix;	**Section 6.2.7, 6.2.8, Appendix D, Volume 2**

Cross Reference of EIS Guidelines with Draft EIS Content	
Guidelines	***EIS Section***
describe topographical, geological or landform features/sites that may be of conservation or economic significance; and	**Section 6.2.4**
discuss the various soil types and land units along the route that may be disturbed.	**Section 6.2.5, Appendix C, Volume 2**
4.3.2 Impacts	
Detail the extent and implications of possible impacts to topographical, geological or landform features/sites from pipeline construction; and	**Section 9.2.1, 9.2.2, 9.2.3**
provide details of limiting properties of soil types and land units along the proposed pipeline route relating to erosion, rehabilitation, acid generation or special management requirements	**Section 9.2.3, 9.2.4**
4.3.3 Management	
Discuss measures taken to avoid or minimise the impacts identified in 4.3.2; and	**Section 9.2.1-9.2.4**
provide management plans detailing measures to manage potential environmental impacts arising from land form limitations previously discussed.	**Section 12.2**
4.4 Hydrology and Water Quality	**Appendix G**
4.4.1 Baseline	
Provide a broad description of any waterways or other wetland habitat, natural or artificial, ephemeral or permanent, including springs and mound springs, that may be impacted by the project. Include a description of catchment systems, existing surface drainage patterns, flow, likelihood of flooding and present water uses;	**Section 6.2.9, Appendix G**
provide a description of relevant groundwater resources in any areas likely to be affected by the underground pipes and excavation; and	**Section 6.2.10, Appendix G**
provide details of the potential locations of pipeline waterway crossings including bed and bank profiles and describe selection criteria for determining the final crossing locations. Include information on the flow regime of the waterways in the vicinity of the pipeline, in particular the timing (and volume) of flows in relation to any construction work.	**Section 4.6, 5.5.10**
4.4.2 Impacts	
Describe how the pipeline might impact on the surface and ground water features described in 4.4.1;	**Section 9.2.5,**
detail the extent of de-watering that may be required for installation of the pipeline. Describe the potential impacts including the effects of localised lowering of groundwater tables (ie, zone of influence), associated disturbance to wetland and aquatic flora and fauna (if any);	**Section 9.2.5, 9.7**
provide details of typical waterway crossings that would be constructed and likely impacts associated with crossing at each intended location. Details including design, construction (timing), rehabilitation and maintenance should be discussed in consultation with the relevant Advisory Agency and published guidelines;	**Section 4.6, 5.5.10, 9.2.5, Appendix G, Volume 2**
consider and discuss the risks associated with the proximity of the proposed condensate pipeline to borefields or aquifer recharge zones that may supply potable water; and	**Section 9.2.5, Appendix G, Volume 2**
detail the potential impacts from wastewater generated by construction/operational water use including translocation or introduction of non-endemic aquatic fauna and flora.	**Section 9.2.5, 9.3.3, Appendix G, Volume 2**

Cross Reference of EIS Guidelines with Draft EIS Content	
Guidelines	***EIS Section***
4.4.3 Management	
Detail safeguards and management strategies used to minimise the impacts of pipeline construction and operation on the hydrological features described in 4.4.1. In particular, provide details on the following: ▪ measures to safeguard surface and groundwater resources including options for the appropriate treatment and disposal of construction and operational wastewater, and discharge of abstracted water. Identify the preferred option and the selection criteria used; ▪ measures to ensure the beds and banks of water courses remain stable and protected from the natural forces of erosion as required, incorporating preferred methodologies of relevant Advisory Agencies where practicable particularly where there has been any disturbance to the bank or to the bed; and ▪ measures to safeguard downstream water quality including appropriate management of any acid sulphate soils excavated and wetland crossings.	**Section 9.2.5, 9.3.3, 12.2**
4.5 Air Quality & Noise	
4.5.1 Baseline Sensitive noise receptors adjacent to the pipeline route, and adjacent to relevant ancillary activities, should be mapped and typical background noise levels recorded. The potential sensitivity of such receptors should be discussed. Performance indicators and standards should be nominated for each affected receptor; and similarly, background dust levels should be measured.	**Section 5.9.1, 5.9.2, 5.9.4, Appendix A, Volume 2**
4.5.2 Impacts	
Assess impacts of noise generated during construction along the pipeline route and ancillary activities, against current typical background levels. Anticipated noise levels, their timing and duration should be considered in conjunction with the sensitivity of the receptor;	**Section 9.5, 9.6, Appendix A, Volume 2**
assess the potential impact of noise generation from pipeline operations, including noise from venting and compressor stations;	**Section 9.6, Appendix A**
identify and assess the possible impacts of the following air quality issues resulting from the construction and operation of the pipeline: ▪ odour; ▪ gaseous emissions including carbon monoxide (CO) and oxides of nitrogen (NOx); ▪ accidental and planned gas releases; and ▪ greenhouse gas emissions and ozone depleting substances.	**Section 9.4.5**
4.5.3 Management	
Outline dust suppression initiatives. Discuss and recommend dust suppression strategies and monitoring of dust impacts;	**Section 9.4.5, 12,2**
outline the measures that will be employed for monitoring and dealing with gas leakages during operations; and discuss the effectiveness of the pollution control technology in minimising odour emissions.	**Section 9.4,5, 12.2**

Cross Reference of EIS Guidelines with Draft EIS Content	
Guidelines	***EIS Section***
4.6 Ecology	
4.6.1 Baseline Describe flora and fauna species (including weed or exotic species) and biological communities (including wetlands) which could be affected by the Project. Flora and fauna should be surveyed and described with rare, threatened or endangered species identified against relevant Territory and Commonwealth legislation. Species with Indigenous conservation values should also be described.	**Section 6.3.1 – 6.3.7, Appendix H-I, Volume 2**
significant vegetation includes: ▪ rare, threatened, endangered and regionally restricted species, vegetation types or habitats; ▪ communities that are particularly good examples of their type; ▪ vegetation types which are outside their normal distribution or have other biogeographical significance; ▪ ecologically outstanding areas which have importance beyond the immediate site, eg. wetlands, riparian forests, etc; and ▪ vegetation which is the habitat of rare and threatened fauna or has outstanding diversity. Specify the extent of clearing required along the pipeline corridor;	**Section 6.3.3, Appendix H, Volume 2**
provide an assessment of statutory obligations under NT legislation (IDCO No. 12 – *Planning Act 1999* & s.38 *Pastoral Land Act 1992*) for permits to clear native vegetation and, appropriate timelines to allow for application assessment and approvals;	**Section 9.3.1**
flora and fauna survey methodology should be in accordance with best practice advice from relevant agencies and should include consideration of seasonality, potential for occurrence of significant species, rarity of species and the sensitivity of species to disturbance. The survey methodologies should be included in the appendices.	**Appendix H-J, Volume 2**
4.6.2 Impact	
Discuss the impact of the proposal on species, communities and habitats of local, regional or national significance as described on 4.6.1. Include listed migratory waterbirds, tufa formations, freshwater turtle breeding areas, instream and riparian vegetation habitats, and aquatic fauna (including fish);	**Section 9.3.5**
describe the impact associated with the proposed clearing;	**Section 9.3.1**
discuss the ability of identified stands of vegetation and fauna to withstand any increased pressure resulting from the proposal and measures proposed to mitigate impacts; and	**Section 9.3.1, 9.3.3**
identify pest species/noxious weeds that are likely to occur as a result of activity along the route.	**Section 9.3.7**
4.6.3 Management	
Discuss ways in which impacts on species, communities and habitats can be minimised (eg minimised disruption to fish passage, timing of works, minimise riparian vegetation disturbance, proposed rehabilitation of instream and floodplain disturbances);	**Section 9.3.1-9.3.4, 12.2**
describe the methods for rehabilitating disturbed areas following construction, including revegetation strategies, surface stabilities and aquatic monitoring programs;	**Section 9.3.1, 9.3.3, 12.2**
discuss measures to minimise wildlife capture and mortality in the open trench, including inspection and collaboration with Commonwealth and Territory wildlife agencies;	**Section 9.3.2, 12,2**

Cross Reference of EIS Guidelines with Draft EIS Content	
Guidelines	***EIS Section***
include a weed management plan in the EMP to cover construction, rehabilitation and operation periods (a weed management plan is required under the NT Weeds Management Act 2001). Best practice weed management should be adopted with particular reference to The Australian Pipeline Industry Association APIA Code of Environmental Practice;	**Section 12.2**
discuss the method of managing/minimising the introduction of feral animals, and other exotic fauna species;	**Section 9.3.7, 12.2**
management of land clearing should be in accordance with The Australian Pipeline Industry Association Inc. (1998) Code of Environmental Practice – Onshore Pipelines; and	**Section 9.3.1, 12.2**
a Vegetation Clearing Plan should be developed as part of the Construction EMP.	**Section 12.2**
4.7 Socio-Economic	
4.7.1 Land Use	
4.7.2 Baseline Identify zoning, land uses and features along the pipeline route including: ▪ urban and rural residential;	**Section 7.2.3**
▪ agricultural, pastoral and forestry;	**Section 7.2.4**
▪ conservation, wilderness, scenic and heritage areas;	**Section 7.3, 7.6**
▪ recreational land use (eg recreational fishing), areas of research, educational and scientific value; and	**Section 7.5**
▪ extractive, mining and other commercial industries.	**Section 7.2.5**
Identify land titles (eg freehold, leasehold, pastoral, crown land, native title, mining tenure etc) and rights over land such as Native Title (under the *Native Title Act 1993* and Aboriginal land claims under the *Aboriginal Land Rights (Northern Territory) Act 1976* and any other appropriate legislation);	**Section 7.2.2**
list the jurisdictions and responsible authorities for the areas described above and show on maps at appropriate scales, together with the regulatory regime applying to each area; and	**Section 1.10, 1.11**
discuss the distances from towns, communities, houses, recreation areas, and other facilities, and the locations of pipelines, power lines, telephone lines and other infrastructure.	**Section 7.2.3**
4.7.1.2 Impact	
Describe, including timeframes, potential site specific and cumulative impacts on existing and potential land uses and development (as described in 4.7.1.1) anticipated occurring during the construction and operation phases. The proponent is required to consult with responsible authorities for policies on such disturbances;	**Section 10.2, 10.3, 11.4**
land acquisition and compensation should include likely impacts on the land use status and ownership of the land crossed by the proposed pipeline. Indigenous ownership, including native title claimants and holders, and land use should be a component of this discussion.	**Section 10.2, 11.4**
4.7.1.3 Management	
An assessment of the need for any land easement acquisition and compensation for loss of land should be made. Implications of alternative land acquisition processes should be discussed; and	**Section 10.2, 10.3, 11.4**
provide details on measures to rehabilitate areas impacted by the project.	**Section 10.2, 11.4**

Cross Reference of EIS Guidelines with Draft EIS Content	
Guidelines	***EIS Section***
4.7.2 Historic and Cultural Heritage Values	
4.7.2.1 Baseline	
Identify Indigenous and non-indigenous places of historic or contemporary cultural heritage significance, including: ▪ areas nominated for listing or listed on the Register of the National Estate or the Interim list of the Register of the National Estate; ▪ areas nominated for listing or listed on Commonwealth and Territory Heritage registers and Commonwealth and Territory registers of indigenous cultural heritage; ▪ sacred sites - provide evidence of an Authority Certificate under the *Northern Territory Aboriginal Sacred Sites Act 2000* and compliance with protection of sites under the *Aboriginal Lands Rights (Northern Territory) Act 1976*; ▪ Macassan sites and traditional and historic Aboriginal and Torres Strait Islander (ATSI) archaeological and heritage places and objects protected under relevant Territory and/or Commonwealth legislation; ▪ European historic sites; and ▪ areas with special values to indigenous and non-indigenous people (eg. traditional land use, landscape, visual environment, recreational, commercial, tourism, fisheries, scientific, educational, marine archaeological sites);	**Section 7.6, 7.7**
This should be done through community consultation, historic research and field survey. No information of a confidential nature, (particularly that related to anthropological matters) relevant to indigenous people or groups is to be disclosed in the EIS. However, the EIS must describe the arrangements that have been negotiated with relevant indigenous groups in relation to anthropological and archaeological surveys.	**Section 3, 7.6, 7.7, Appendix L-M, Volume 2**
Advice and permits on the conduct of these studies should be sought from the responsible authorities. Independent qualified professionals in consultation with the Traditional Owners, or their representative bodies in the relevant area must conduct surveys. Research and surveys are to be carried out using an appropriate methodology which provides for involvement of indigenous people and which is acceptable to the traditional owners concerned with the relevant areas. Relevant indigenous groups should be consulted in relation to the nature and scope of surveys and the appointment of the people to undertake them. Consultation with historical organisations should also be undertaken.	**Appendix L-M, Volume 2**
4.7.2.2 Impact	
Describe the potential impacts on the features described in 4.7.2.1; the identification of indigenous cultural heritage impacts is to take place in consultation with relevant indigenous groups. This should assess the Project's effects on lifestyles, traditional fishing practices, heritage places, the impact of increased visitation and the effects on indigenous culture generally. All groups should be consulted in relation to the traditional subsistence economy, their natural resource use, and Native Title interests; and discuss the impacts on the relationships between groups identified with traditional and/or contemporary interest in the project area.	**Section 10.6-10.8**
4.7.2.3 Management	
Every attempt should be made to identify a pipeline route, which avoids any significant heritage areas. The separation distances between right of way and associated infrastructure and identified areas of cultural significance should be considered;	**Section 10.6-10.8**

Cross Reference of EIS Guidelines with Draft EIS Content	
Guidelines	***EIS Section***
Cultural Heritage Management Plans (CHMP's) should be developed and implemented with the direct involvement of indigenous people. The CHMP's should encourage ongoing protection and management of cultural values; maximise involvement in management strategies and enable proponents to meet duty of care to protect Aboriginal cultural values;	**Section 12.2**
describe procedures for the discovery of as yet undiscovered sub-surface materials.	**Section 12.2**
4.7.3 Social Environment	
4.7.3.1. Baseline	
Identify key stakeholders; detail regional community structures and vitality (including demography, health, education and social well being, access to services, housing, etc); identify the number and capacity of existing human services to support a remote construction work force: ▪ skills audit of affected communities; ▪ workforce characteristics; and ▪ housing accommodation type and quantity.	**Section 3, Section 11, Appendix N, Volume 2**
The potential of the local communities to meet the demands for employment in the company's workforce, and as a source of provisions should be discussed for construction, rehabilitation and operation phases of the project. The proponent should identify relevant government policies related to employment in regional areas and discuss compatibility of the project with these policies (liaise with the Office of Indigenous Policy, Department of the Chief Minister).	**Section 10.9.1, 10.9.2**

Cross Reference of EIS Guidelines with Draft EIS Content	
Guidelines	***EIS Section***
4.7.3.2 Impacts and Management The EIS should include a Social Impact Management Plan developed in consultation with impacted communities, which discusses: - General social impacts of the proposal during construction and operation, including the impacts of the construction workforce/ maintenance teams on affected landowners (including native title holders and claimants) and communities, recreational users, health and housing, property values and local authority rates are to be considered; relations between groups identified, in particular those based on age, sex, kinship, and place of origin and how this will be impacted by the Project; opportunities for training and employment during construction of the Project (eg. employment, monitoring and maintenance contracts) and how this will be structured, managed and implemented; options for possible external commercial arrangements; possible future benefits following pipeline construction; opportunities for ongoing involvement in the pipeline operation; the provision of cultural awareness programs and behavioural guidelines to project employees; monitoring regimes to monitor and evaluate the management of the above mentioned impacts. Provide for modifications to existing measures where mitigation strategies fail to prevent negative impacts.	**Section 10.11, 11.4, 11.5, 12,2, Appendix N, Volume 2**
4.7.4 Regional Economics	
4.7.4.1 Baseline Detail regional economic viability (including economic base and economic activity, future economic opportunities, etc).	**Section 7.9**
4.7.4.2 Impacts and Management	
The EIS should present a balanced broad summary of the project's impact on the regional, territory and national economies in terms of direct and indirect effects on employment, income and production. It should specify any disturbance to existing land use or threat to wilderness areas, which may impact on commercial activities and potentially impact adversely on employment;	**Section 10.11**
an indication of the broader development benefits of the project should be included; and	**Section 10.11**
describe opportunities available to regional centres/communities based on the activity generated by the project (construction, rehabilitation and operation) and the availability of gas to existing and potential customers.	**Section 10.11**
4.7.5 Infrastructure and Transport	
4.7.5.1 Baseline	
Detail existing transport networks (including road, rail and ports), telecommunications (optical fibre routes), gas and electricity infrastructure, and water supply and wastewater utilities. Include detail to differentiate between types of infrastructure eg. road type, dual carriage way/single lane bitumen/gravel;	**Section 7.8**
identify constraints with the existing infrastructure (eg wet season access, periods of road closure and load limits).	**Section 5.5.8**
Provide details of new infrastructure that will be required for the project including any requirements to upgrade existing infrastructure. In particular, provide locations of new roads or tracks , lay down storage areas, turning circles, approach diversion lanes etc.	**Section 5.5.8**
4.7.5.2 Impact	
Describe the potential impacts of the proposal on existing and future local infrastructure and transport networks during construction and operation. This should include reference to increased road usage generated by the project;	**Section 10.9, 10.10**

Cross Reference of EIS Guidelines with Draft EIS Content	
Guidelines	***EIS Section***
detail the value of proposed pipeline and associated infrastructure in terms of the potential to provide alternative gas supply to other gas customers and to act as a conduit for other services; and	**Section 2.3**
discuss the potential impacts of transport operations on public amenity associated with construction (noise, dust, light).	**Section 9.4.5, 9.5, 9.6**
4.7.5.3 Management	
Describe the management of impacts on the road system and other existing infrastructure, including proposed corrective measures (in consultation with relevant regulatory agencies) and relevant guidelines used for construction, and operational and maintenance phases. Include measures to upgrade, maintain and restore gazetted or nominated roads and access tracks, and to undertake pipeline crossings of tracks;	**Section 10.9, 10.10, 12.2**
outline requirements and responsibilities for rehabilitation or maintenance of roads and other project infrastructure upon project completion;	**Section 12.2**
discuss the provision for safety of the travelling public if a high pressure gas pipeline were to be located in a road or rail reserve; and	**Section 12.2**
discuss measures to minimise disruption to road users during construction of the pipeline and to ensure their safety during both construction and subsequent operation of the pipeline.	**Section 12.2**

Cross Reference of EIS Guidelines with Draft EIS Content	
Guidelines	***EIS Section***
4.8 Biting Insects Discuss the impact of biting midge and mosquito populations as pest and disease vectors on the work force and potential for construction activities to create new sources of biting insects for nearby residents; identify measures to prevent the creation of new mosquito breeding sites in quarries and borrow pits; identify measures to prevent construction activities causing impacts on drainage lines, which will lead to increases in biting insect species of pest and health significance; and discuss the effects of construction activities and disposal of construction wastes on biting insect species of pest and health significance, including measures to prevent increases in these species.	**Section 9.3.5, 9.4, 12.2**
4.9 Greenhouse Gas Emissions Inventory and Benchmarking Refer to the attached NT Environmental Impact Assessment Guide – Greenhouse Gas Emissions	**Section 9.4.5.2, 12.2**
4.10 Waste Management	
4.10.1 Impact Identify and describe (amount and characteristics) all sources of waste associated with construction, operation and decommissioning of the pipeline; describe all activities including: ▪ chemical and mechanical, to be conducted on the construction sites/camps (eg. chemical storage, sewage treatment, power generation, fuel burning, mechanical workshop, diesel storage); and ▪ any chemicals used, which may impact on cattle producers quality programs.	**Section 9.4**
4.10.2 Management Discuss waste management strategies, including reduction, reuse, recycling, storage, transport and disposal of waste including site drainage and erosion control; detail hazardous materials to be stored and/or used on site; provide their Material Safety Data Sheets and environmental toxicity data and biodegradability for raw materials and final products; and waste management strategies should incorporate measures to avoid waste generation where possible.	**Section 9.4, 12.2**
4.11 Fire Identify activities, which pose a risk of wildfire and describe safeguards for minimising the likelihood of wildfire and fire response plans; and develop a fire management plan in consultation with traditional Aboriginal owners, pastoralists and their representative organisations, including the NLC, that have specialist knowledge in fire management.	**Section 9.3.8**
5 PROJECT ENVIRONMENTAL MANAGEMENT Specific safeguards and controls, which would be employed to minimise or remedy environmental impacts, are to be outlined. These are to be covered in detail in the Environmental Management Plans (EMP's).	**Section 12**

Cross Reference of EIS Guidelines with Draft EIS Content	
Guidelines	***EIS Section***
5.1 Environmental Management System It is recommended that the proponent develops and implements an Environmental Management System (EMS) for the project. The EMS should incorporate all facilities and operations associated with the project to an accepted standard commensurate with the risk of environmental harm. Accepted EMS standards are specified in: ▪ AS/NZS ISO 14000 – Environmental Management System, Guidelines on Principles; ▪ AS/NZS ISO 14001 – Environmental Management System, Specifications with guidance for Use; ▪ BS 7750 – Specifications for Environmental Management Systems. and ▪ The Australian Pipeline Industry Association APIA Code of Environmental Practice. The EMS should include an annual program with the objective of verification of compliance with all environmental performance commitments, including permits and licences. The Environmental Management Plan required as part of this EIS should describe a commitment to develop an EMS to one of the above specifications. Discuss the potential use of an Integrated Environmental Management System (EMS) incorporating Environment Management Plans (EMP's), Monitoring and Reporting arrangements, or equivalent site-based management plans that would assist the determination of appropriate approval conditions for the project.	**Section 12**
5.2 Resourcing and Policies Information is to be provided on strategic matters relating to environmental management and should include: ▪ staffing arrangements to ensure that the measures described in the report will be carried out effectively; ▪ procedures and instructions to employees on minimising unnecessary environmental impacts; ▪ a staff induction and education program to ensure an informed response to construction and operational environmental concerns; and ▪ development of staff behavioural guidelines and cross-cultural awareness training.	**Section 12**

Cross Reference of EIS Guidelines with Draft EIS Content	
Guidelines	***EIS Section***
5.3 Environmental Management Plan It is recommended that all environmental commitments made in the EIS be included and indexed in the Construction and Operational Environmental Management Plans. The EMP's should be prepared in consultation with the relevant Commonwealth and Territory advisory agencies. Provide strategic draft EMPs with the draft EIS. Discuss the process for updating the EMP's including periods for regular review. The EMP commitments should include clear timelines for key commitments, especially in relation to stabilisation and rehabilitation of the corridor and other disturbed areas. When information is not available, it should be described with an indication of how and when the information will be incorporated into the final detailed EMP. The EMP's must be prepared in accordance with recognised standards and, in particular, to standards applicable to the construction and operation of gas production facilities and pipelines and as required by Commonwealth and Territory legislation, for example The Australian Pipeline Industry Association Inc. (1998) *Code of Environmental Practice – Onshore Pipelines*. The EMP's should also cover any ancillary developments with potential environmental impacts, occurring as part of the pipeline. This should ensure that environmental risk, particularly to regional communities, is minimised. Reference to the standards used is required; relevant standards are referred to in Section 5.1 in relation to Environmental Management Systems. The plan should address, but not be limited to, the following matters: ▪ the management objectives; ▪ specific strategies to meet the management objectives, such as the preparation and implementation of various management plans, eg. rehabilitation plans, habitat enhancement projects, erosion and sediment control plans, pollution control plans, greenhouse emissions, waste management plans, etc, in consultation with agencies; ▪ the quality assurance, monitoring and auditing requirements and programs including the identification of performance indicators and criteria, monitoring and auditing locations and frequency; ▪ identification of responsible personnel in the Proponent's organisation; in the contractors' staff and in the government agencies concerned; ▪ reporting processes; ▪ whole of project and life of project variations to environmental conditions; and ▪ linking of EIS findings with environmental authorities and development approvals.	**Section 12**

Cross Reference of EIS Guidelines with Draft EIS Content	
Guidelines	***EIS Section***
5.4 Monitoring and Reporting Strategies Specific programs of monitoring or measuring the success of the Project's environmental management are to be outlined. These should be covered in greater detail in the Environmental Management Plan. Matters to be considered should include: ▪ details of inspections to be undertaken to ensure the integrity of the pipeline; and ▪ objectives to measure rehabilitation success, address weed infestation, restrict access along the pipeline route, extent of erosion along the route, extent of erosion along the route, water quality in adjacent streams and control of biting insect species of pest and health significance. Performance requirements should be specified quantitatively, including performance indicators for each aspect to be measured, and the stipulated target level or standard to achieve for each indicator. The timing and frequency of monitoring should also be provided. Monitoring programs should: ▪ ensure safeguards are being effectively applied; ▪ be capable of identifying any differences between predicted and actual impacts; and ▪ identify the party responsible for undertaking corrective actions, and the actions taken to address problems. The reporting program should detail: ▪ steps to be taken to correct detrimental effects identified by monitoring; ▪ procedures for reporting on monitoring programs; and ▪ proposed recipients of reports. The monitoring of rehabilitation success at pipeline sites adjacent to or across waterways must continue for an adequate period to ensure that such works/rehabilitation withstand the natural flow regimes of the region.	**Section 12**
6 HEALTH AND SAFETY PROGRAM	
Health and Safety issues pertaining to the design, construction and operational phases of the project, and the transport of construction materials, should be investigated. This should address issues concerning employees visiting the site and members of the public.	**Section 13**
Discuss issues relating to provision of emergency first aid treatment and transport of sick or injured persons to the nearest appropriate medical facility.	**Section 13.2, 13.3**
Prepare a management and administration plan outlining strategies and procedures in the event of an emergency.	**Section 13.2, 13.3**

Cross Reference of EIS Guidelines with Draft EIS Content	
Guidelines	***EIS Section***
7 RISK ASSESSMENT AND EMERGENCY MANAGEMENT PLANS	**Section 13.2, 13.3, Appendix E, Volume 2**
7.1 Risk Assessment The Proponent shall carry out a Risk Assessment in accordance with AS 2885 Gas and Liquid Petroleum Pipelines and the guidelines of the responsible authority, where relevant. While the EIS must deal comprehensively with on site risks, it is suggested that external risks to the project also be considered. It is suggested that external risks from natural hazards be determined on the basis of AS/NZS Risk Management Standard 4360:1999. The study shall discuss all potential risks associated with operation of the pipeline. Where possible describe these risks in quantitative terms. An indication is required of the likelihood of possible abnormal events that may arise in operation, together with the safeguards, which will be employed to reduce the likelihood of their incidence. The seismic stability of the pipeline route needs to be addressed and the vulnerability of the route to flooding. Analysis shall be conducted of the consequences of these events in terms of possible risks, which may arise to public safety and environmental damage in the Project area, particularly in the vicinity of the pipeline. Details are to be provided of the safeguards, which will be employed or installed to reduce the risk of injury to persons, fauna and environmentally sensitive sites along the pipeline route. A review of potential hazards, accidents, during the construction, operational and decommissioning phases should be provided.	**Appendix E, Volume 2**
7.2 Emergency Management Plan An outline of the proposed emergency management procedures, including the likelihood of accidental release of gas or other materials from the pipeline is to be provided. The information should include: ▪ the quantity of gas that would be lost; ▪ the area affected by the gas, under a range of likely flow conditions, including no flow up to a “typical” flood flow; and ▪ the approximate time scale for removal of gas by natural processes. The following should also be considered: ▪ contingency plans to deal with hydrocarbon (eg. diesel, lubricating oils) oil spills during construction, operation and maintenance of the pipeline; ▪ contingency plans to account for natural disasters such as storms, floods and fires during the construction, operation and maintenance phases; ▪ ensure that development of emergency planning and response procedures are determined in consultation with regional emergency service providers; and ▪ include the relevant Commonwealth and Territory agencies in relation to emergency medical response and transport and first aid matters.	**Section 12.2, 13.3,**
8 PUBLIC INVOLVEMENT AND CONSULTATION Public involvement and the role of government organisations should be clearly identified. The outcomes of surveys, public meetings and liaison with interested groups should be discussed and any resulting changes made to the proposal clearly identified. Details of any ongoing liaison should also be discussed. Negotiations and discussions with local and community government, the Territory Government and the Commonwealth Government should be detailed and any outcomes referenced. Details of any ongoing negotiations and discussion with government agencies should also be presented	**Section 3**

Cross Reference of EIS Guidelines with Draft EIS Content	
Guidelines	***EIS Section***
9 BIBLIOGRAPHY The Draft EIS should contain a comprehensive reference list/bibliography. Any source of information such as studies, research, maps and personal communications used in the preparation of the Draft EIS should be clearly identified, cited in the text and referenced in the bibliography. The Australian Pipeline Industry Association Inc. (1998) *Code of Environmental Practice – Onshore Pipelines*.	**Section 15**
10 GLOSSARY A glossary should be provided, defining the meaning of technical terms, abbreviations and colloquialisms. (Note: throughout the Draft EIS, technical terms and jargon should be minimised).	**Section 14**
11 APPENDICES Information and data related to the Draft EIS but unsuitable for inclusion in the main body of the statement (eg. because of its level of technical detail) should be included as appendices. This may include detailed analyses, monitoring studies, baseline surveys, raw data and modelling data. Where necessary, specific guidance should be provided on the most appropriate means of accessing information not appended to the Draft EIS.	**Volume 1 - 3**

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