Section 1

Introduction




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1. Introduction

1.1 Purpose of the EIS

This Draft Environmental Impact Statement (EIS) has been prepared by Woodside Energy Limited (Woodside) and presents the findings and conclusions of an Environmental Impact Assessment (EIA) undertaken for the proposed Blacktip Project. The objective of the EIA process is to ensure that potential environmental impacts associated with the project development during both routine and non-routine operations, are identified and appropriately assessed. In doing so, relevant preventative and management measures can be developed and implemented to ensure that adverse environmental impacts are managed to be As Low As Reasonably Practicable (ALARP).

This Draft EIS has been prepared in accordance with the provisions of the Northern Territory *Environmental Assessment Administrative Procedures of the Environmental Assessment Act 1982* of the Northern Territory, and meets the requirements of the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act). The structure of this Draft EIS is based on Guidelines issued jointly by the Northern Territory Government and Commonwealth Government in response to the Notice of Intent (NOI) and EPBC Act referral (Woodside 2003a and 2003b) submitted by Woodside to the Northern Territory Government and Commonwealth Government in September 2003. Following a review of the proposal by the respective governments, the level of environmental assessment required for the proposed project was set as an EIS. The guidelines issued by the Northern Territory Government and Commonwealth Government are attached in **Appendix A**, **Volume 1**.

The key objectives of this Draft EIS are to provide:

- A source of information from which individuals and groups may gain an understanding of the proposal, the need for the proposal, the economic and other benefits that might arise from the proposal, the alternatives, the environment that it would affect, the impacts that may occur and the measures taken to minimise those impacts.
- A basis for public consultation and informed comment on the proposal.
- A framework against which regulatory bodies can consider the environmental aspects of the proposal, set conditions for approval to ensure environmentally sound development and recommend an environmental management and monitoring programme.
- A cornerstone document to aid in the development of the project's ongoing Environmental Management System (EMS).

1.2 Overview of the Proposed Development

Woodside, in association with its joint venture partner Eni Australia B.V. (Eni), proposes to develop the offshore Blacktip gas field in permit area WA-279-P of the Joseph Bonaparte Gulf, approximately 245 km south west of Darwin (**Figure 1-1**). The Blacktip gas field is located in approximately 52 m of water and comprises reserves with a Scope For Recovery of approximately 933 billion standard cubic feet (bscf) of raw gas and of 5.7 million barrels (MMbbl) of condensate

(ideal C5+). The processing infrastructure is being designed for production rates that vary between 118 million and 190 million standard cubic feet per day (MMscf/d).

It is proposed that initially two wells will be drilled in WA-279-P with the potential to drill up to a maximum of six wells. An unmanned, remotely operated wellhead platform will be installed. Gas and associated reservoir liquids will be exported from the Blacktip field and potentially other fields located in the Joseph Bonaparte Gulf, via construction of a 107.5 km long subsea pipeline to an onshore gas plant. The pipeline will be orientated in a south-easterly direction from the offshore gas field to a landfall location approximately 12 km west of Wadeye (formerly known as Port Keats). The onshore facilities will be located close to the beach landing, approximately 2.5 km inland and will process the gas for commercial use.

The Blacktip Project has the potential to provide the necessary onshore and offshore infrastructure for the processing and transfer of reservoir fluids sourced from other adjacent fields in the Joseph Bonaparte Gulf. This increased processing capacity is subject to securing both the necessary hydrocarbons and markets for these additional reserves. Should these fields be developed in the future, they will be subject to separate environmental approvals and are outside the scope of this Draft EIS.

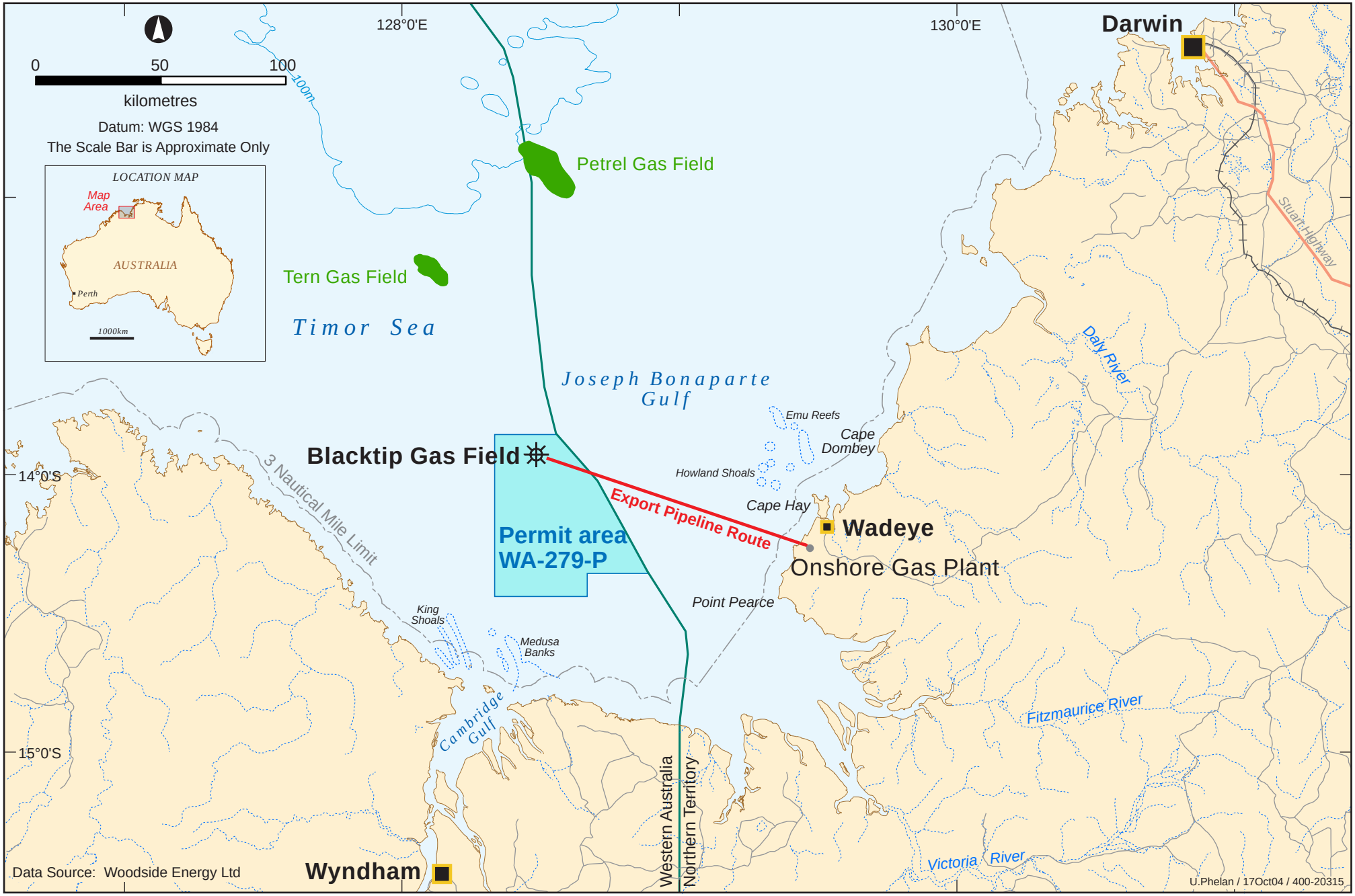
1.3 Project Proponent

The Blacktip Project is a cooperative development between the following participants in permit WA-279-P:

- Woodside Energy Limited 53.85%
- Eni Australia 46.15%

Woodside is the designated operator of Permit WA-279-P and the proponent of the Blacktip Project.

Woodside: Woodside is a leading Australian oil and gas company with substantial assets and a growing international reputation as a successful oil and gas explorer, developer and operator. Formed in 1954 as Woodside (Lakes Entrance) Oil NL to search for oil in Victoria's Gippsland region, Woodside is now based in Perth, Western Australia (WA). The company operates Australia's biggest energy resources development, the North West Shelf Project supplying most of WA's domestic gas requirements and exporting Liquefied Natural Gas (LNG), Liquefied Petroleum Gas (LPG) and crude oil. Participation in the Otway Development provides Woodside with the opportunity to also supply gas to Victoria and South Australia. Having successfully operated the North West Shelf Project for 20 years, the company is now strongly positioned to take advantage of new opportunities in Australian and international oil and gas markets. These opportunities include interests in Australia, the Timor Sea, North Africa and the Gulf of Mexico.



Blacktip Project

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LOCATION OF THE BLACKTIP PROJECT

Figure 1.1

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Eni Australia B.V: Eni is one of the world's major international integrated energy companies operating large upstream projects, downstream gas and power generation infrastructure, refining and marketing activities, as well as oil field services and engineering.

In Australia, Eni has a 65% stake and is operator of the Woollybutt oilfield in offshore Carnarvon Basin in WA, with a 12% interest in the Bayu-Undan gas condensate project. Eni has an active exploration programme in Australia with interests in 12 permits, of which it currently operates four.

1.4 Project Background

In 2001 Woodside undertook the drilling of a single exploration well (Blacktip-1) which discovered the presence of hydrocarbons in commercial quantities in the Blacktip gas field. In February 2003 Alcan Gove Pty Ltd (Alcan), a wholly owned subsidiary of Alcan Inc, publicly announced plans to undertake an environmental assessment and feasibility study to expand its alumina refinery and bauxite mining plant at Gove, Northern Territory. As part of its A$1.9 billion expansion, Alcan proposed converting its plant from fuel oil to natural gas and undertook investigations into possible sources of natural gas. A Draft EIS for the Alcan Gove Expansion Project (URS 2004) has been submitted to the Northern Territory Government and has received approval.

The Blacktip gas field was identified as a potential source of gas for the Alcan expansion, and negotiations between the Blacktip Joint Venture and Alcan took place in 2003 to reach agreement on the supply of natural gas from the Blacktip Project. Subsequently, a Heads of Agreement between the parties was signed for the supply of gas for 20 years to the Alcan Gove Refinery, commencing in 2007.

The Blacktip Project EIS is one of three EISs submitted or to be submitted in association with the expansion and conversion to gas of Alcan's alumina refinery at Gove (**Figure 1-2**). The three projects undergoing separate EIS processes include:

- Blacktip Project: Offshore gas field development and associated transport of gas via export pipeline to an onshore gas plant near Wadeye, Northern Territory.
- Trans Territory Underground Pipeline Wadeye to Gove in the Northern Territory Project (TTP): Approximately 940 km of onshore pipeline from Woodside's onshore gas plant to Alcan's alumina refinery and bauxite mining plant at Gove, Northern Territory.
- Alcan Gove Expansion Project: Expansion of Alcan Gove's alumina refinery to increase plant capacity to 3.5 million tonnes per annum.

The Blacktip Project schedule is presented in **Figure 1-3**.

1.5 EIS Scope

The Blacktip Project is comprised of offshore and onshore components, both of which are included in the scope of this Draft EIS. The Draft EIS scope is based on the offshore extraction of hydrocarbons from the Blacktip gas field, transportation to and processing at an onshore gas plant.

This Draft EIS covers all phases of the project, including construction, commissioning, operation and decommissioning, and is comprised of the following key components:

- offshore production facilities including production wells, an unmanned wellhead platform and export pipeline;
- onshore processing facilities including slug catcher, compression station, condensate stabilisation, condensate storage and loading, produced water (PW) treatment and disposal, and utility systems;
- onshore supporting infrastructure and facilities including a construction camp, maintenance and operation accommodation, and any necessary access and haul routes.

1.6 Project Net Benefits

The main indirect environmental benefits of the project can be attributed to the substitution of fuel oil for natural gas at Alcan's alumina refinery. Natural gas produces less particulate matter, sulphur dioxide and greenhouse gas emissions than fuel oil; therefore, supplying natural gas to Alcan will result in a cleaner production process and positive impacts on existing atmospheric quality (Alcan 2003). The development of the Blacktip Project will also provide the necessary gas processing infrastructure to supply additional markets, in the event that these should mature.

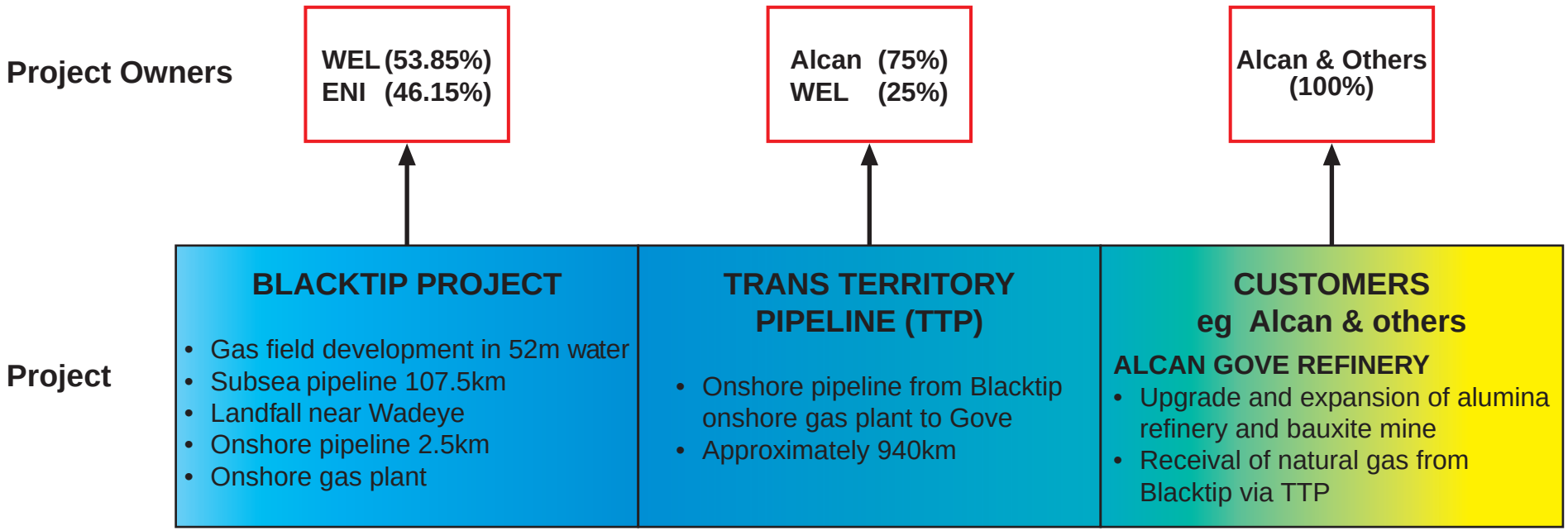
The project will create the opportunity for social and economic benefits for the Wadeye community directly, as well as indirect regional and national benefits for the Northern Territory Government and Commonwealth Government by expanding economic activity, employment, income and expenditure. The project will also add to the Commonwealth Government's revenue directly through the Petroleum Resource Rent Tax (PRRT).

The objectives and the benefits of the project are described in greater detail in **Section 2**.

1.7 Environmental Approval Process

The Blacktip Project is subject to two distinct environmental assessment procedures due to the fact that it is located within both Northern Territory and Commonwealth water boundaries. To avoid duplication, this Draft EIS has been prepared to satisfy both regulatory bodies and will be submitted to both the Northern Territory Government and Commonwealth Government simultaneously.

All States of Australia and the Northern Territory have title to and concurrent legislative power over coastal waters out to 3nm from the shore. Therefore, environmental assessment of the Blacktip Project on Northern Territory land and in Northern Territory coastal waters is required under the Northern Territory *Environmental Assessment Act 1982*. Furthermore, as the project is located in Commonwealth waters (beyond 3nm) and because it was identified that EPBC listed species and communities could potentially be affected by the project, assessment is also required under the Commonwealth EPBC Act.



Note:

WEL	Woodside Energy Limited
ENI	ENI Australia
Alcan	Alcan Gove Pty Ltd
TTP	Trans Territory Pipeline

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PROJECT JOINT VENTURE PARTNERS

Figure 1.2

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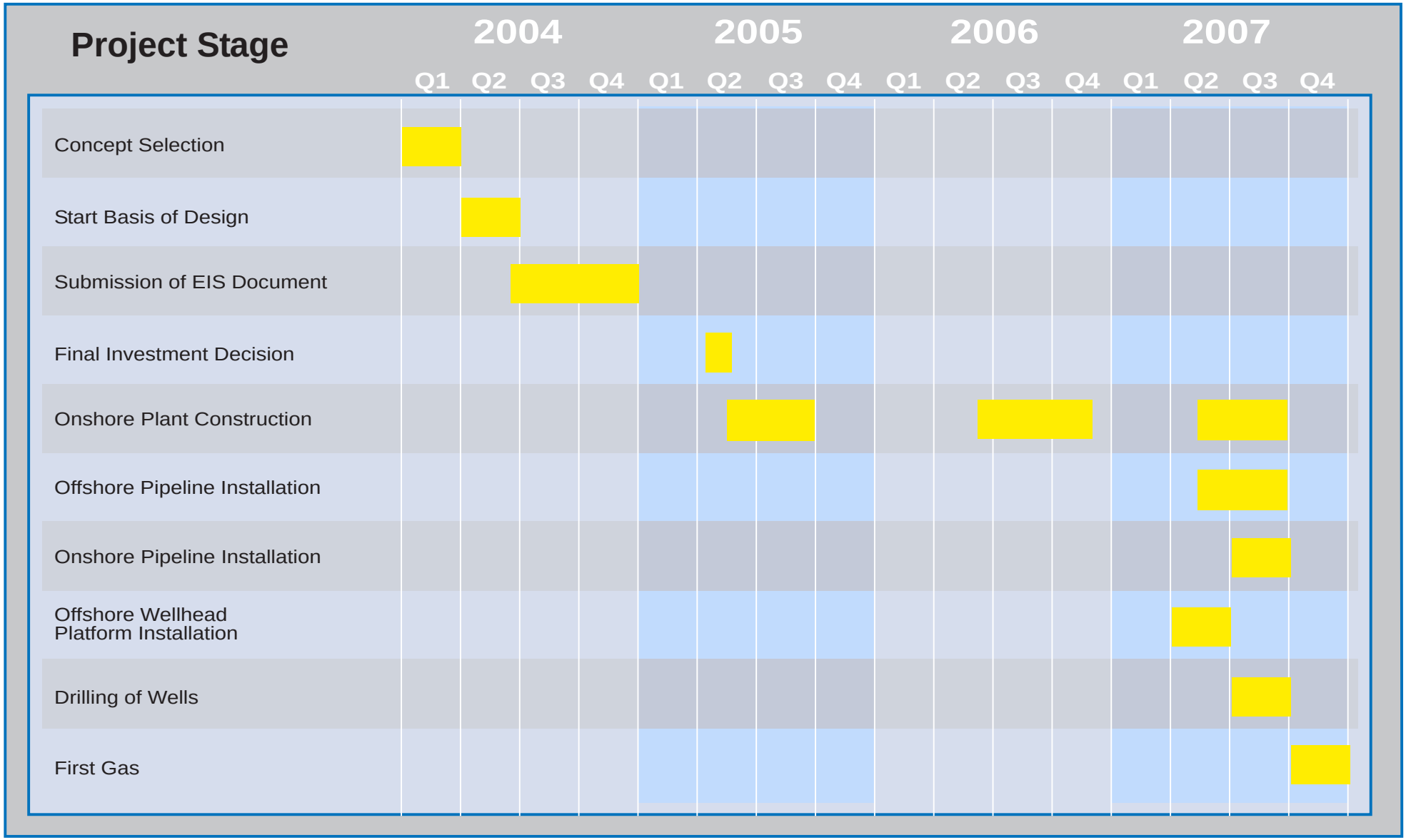

Data Source: Woodside Energy Ltd

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PROJECT SCHEDULE

Figure 1.3

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Although the Northern Territory Government signed a bilateral agreement with the Commonwealth that accredited the Northern Territory environmental assessment process for all proposals situated within Northern Territory land, and waters extending to 3 nm offshore, the bilateral environmental assessment process cannot be applied to the Blacktip Project. This is because a large component of the project is located beyond the 3 nm coastal limit in Commonwealth waters where the bilateral agreement and assessment process is not applicable.

The Commonwealth Government and Northern Territory Government will work cooperatively, and one Draft EIS document has therefore been prepared to meet guidelines set by both jurisdictions. The Northern Territory and Commonwealth environmental assessment processes are detailed below.

Northern Territory Environmental Assessment Process: The Northern Territory environmental assessment process is based on the Northern Territory *Environmental Assessment Act 1982*. Under the *Environmental Assessment Act*, the project is referred to the Minister for Infrastructure, Planning and Environment, who has in this case set the level of assessment as an EIS. The Office of Environment and Heritage then prepares Draft Guidelines in consultation with relevant advisory bodies. The Draft Guidelines are available for public comment for a 14 day period, after which they are finalised for Ministerial approval and forwarded to the proponent.

The proponent prepares a Draft EIS which, after being submitted to the Minister, is subject to review and comment by advisory bodies and the general public for a minimum of 28 days. Any comments received are forwarded to the proponent who addresses the issues in a Supplement to the Draft EIS. Advisory bodies review the Supplement and, if necessary, the Minister can request further information from the proponent.

The Office of Environment and Heritage then has 35 days to prepare an Environmental Assessment Report and Recommendations, based on the Draft EIS and Supplement. Following approval by the Minister, these are forwarded onto the responsible (consent) Minister(s) for inclusion in permit or licence conditions and relevant management procedures. A flow chart of the approval process is presented in **Figure 1-4**.

Commonwealth of Australia Environmental Assessment Process: As the offshore component lies within Commonwealth waters, the Draft EIS is subject to environmental assessment entirely under Commonwealth legislation. The legislative basis of the offshore component of the EIS originates in the EPBC Act and Regulations, which provide for the protection of the Australian environment and waters, and the conservation of biodiversity. Under the EPBC Act, any action that has, will have or is likely to have a significant impact on a matter of national environmental significance is subject to a formal referral, assessment and approval process, in which approval is sought from the Commonwealth Minister for the Environment and Heritage.

The Blacktip Project was referred to the Department of Environment and Heritage in September 2003, and the level of assessment was set as an EIS. The controlling provisions (those matters deemed significant for this project) for the action under the EPBC Act are:

- Sections 18 and 18A (listed threatened species and communities);
- Sections 20 and 20A (listed migratory species);
- Sections 23 and 24A (marine environment).

Species of particular concern to the Commonwealth are the leathery turtle (also known as leatherback turtle), flatback turtle, loggerhead turtle, green turtle, hawksbill turtle and the olive ridley turtle.

The Draft EIS is made available for public review for a minimum of six weeks, and copies of all comments received are forwarded to the proponent, along with any comments from Government agencies or departments.

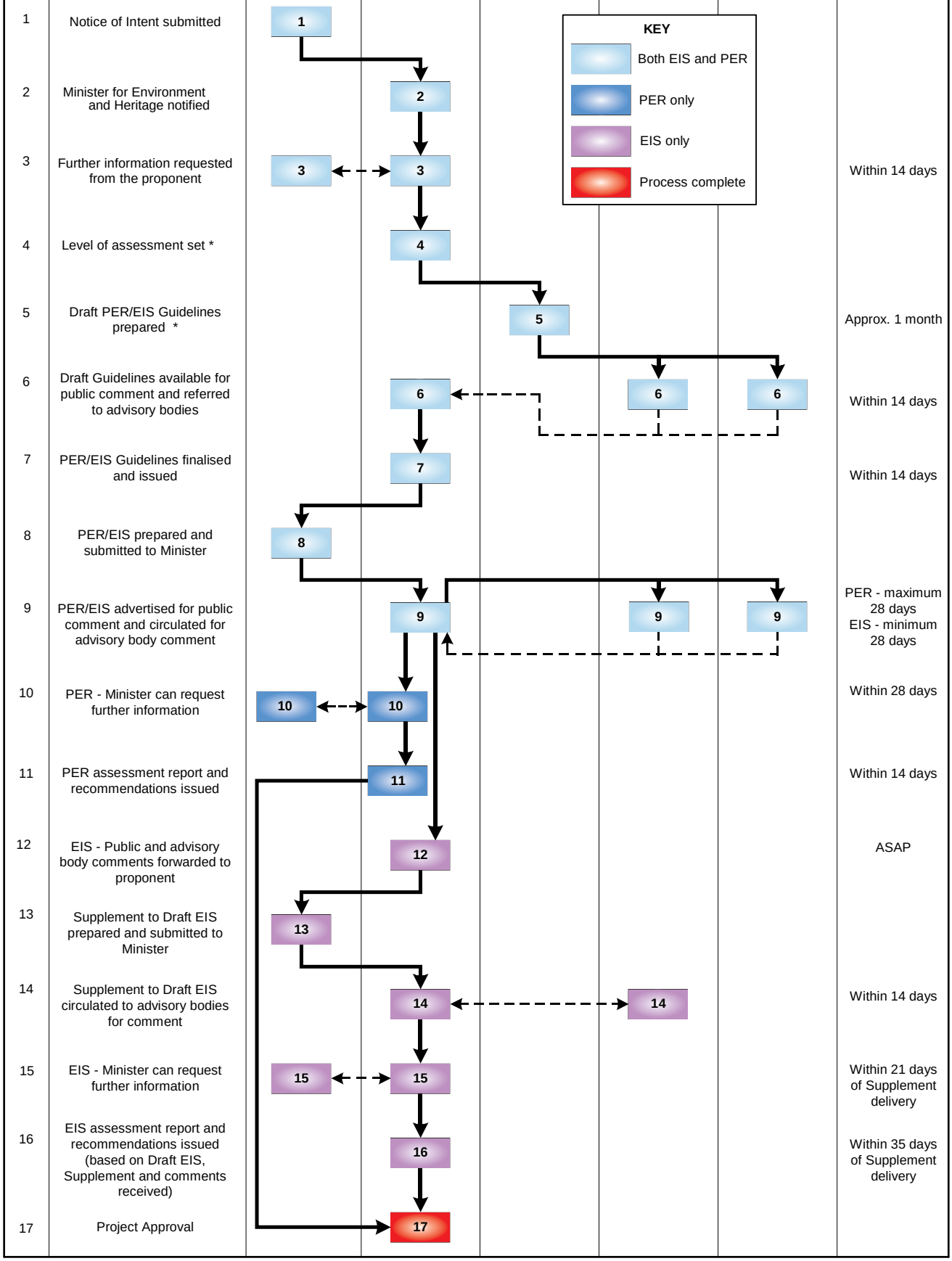
The Final EIS will consist of the Draft EIS and a Supplement that addresses the comments raised in the review process. Following receipt of the Final EIS, the Department of the Environment and Heritage prepares and submits an Environmental Assessment Report to the Environment Minister, who will then make any relevant comments, suggestions and recommendations to the Minister.

A flow chart of the Commonwealth environmental assessment process is presented in **Figure 1-5**.

1.8 Regulatory Framework

The proposed development will comply with the legislative requirements of the Northern Territory Government and Commonwealth Government, and in some cases the Western Australian Government (as discussed in **Section 1.9**). In addition, several design standards, codes of practice, strategies, guidelines, plans and international agreements will also apply; these are summarised in the following section and detailed in **Appendix B** of this Draft EIS.

It should be noted that under Schedule 2 of the *Waste Management and Pollution Control Act 1998* environmental approvals and licences are required for a restricted class of premises. Although the Act specifies approvals for Liquefied Natural Gas Plants and Methanol Plants; the Blacktip Gas Plant cannot be classified as such. The procedures for administering the facility are therefore yet to be resolved.



* Both EIS and PER environmental assessment processes are shown. However, an EIS level of assessment, not PER, has been set for Blacktip Project

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Blacktip Project

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NORTHERN TERRITORY ENVIRONMENTAL ASSESSMENT PROCESS

Figure 1.4

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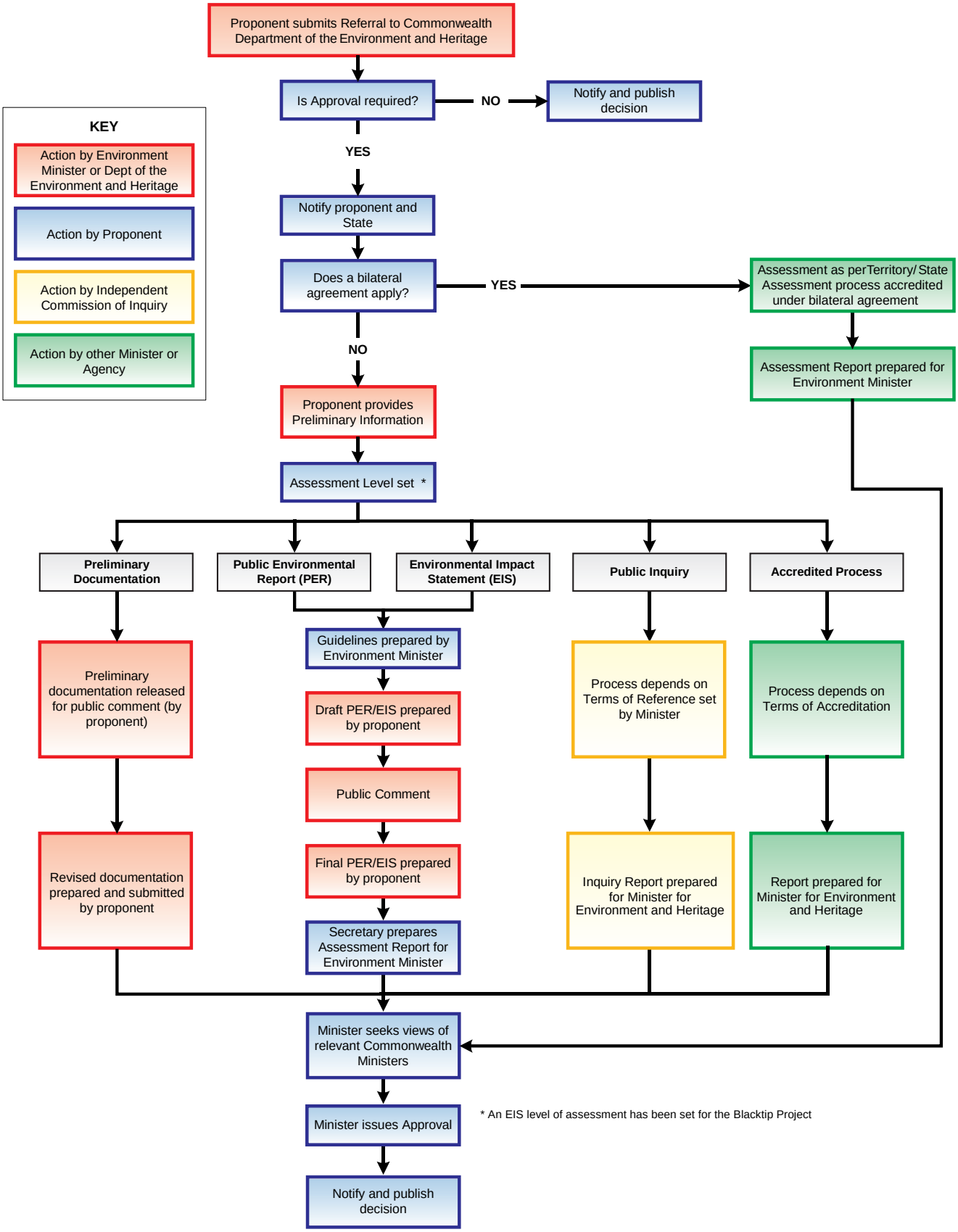

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Blacktip Project

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COMMONWEALTH ENVIRONMENTAL ASSESSMENT PROCESS

Figure 1.5

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1.8.1 Northern Territory Primary Legislation

Northern Territory legislation relevant to the onshore and nearshore components of the Blacktip Project include:

- *Aboriginal Land Act 1978:* This Act controls entry on to Aboriginal land and adjacent seas where a sea closure has been declared. As the Blacktip Project will lie within the Daly River Port Keats Aboriginal Land Trust area, entry permits are required pursuant to this Act. The adjacent sea is not subject to a sea closure under this Act.
- *Northern Territory Aboriginal Sacred Sites Act 1989*: This Act provides protection to Aboriginal Sacred Sites and Objects. The Act requires development proponents to comply with a process for consulting with site custodians and an Authority Certificate will need to be obtained from the Aboriginal Areas Protection Authority (AAPA) prior to development.
- *Northern Territory Heritage Conservation Act 1991*: The Act provides a system for the identification, assessment, recording, conservation and protection of places and objects of prehistoric, protohistoric, historic, social, aesthetic or scientific value. The Heritage Conservation Branch maintains an Archaeological Sites Register and Heritage Register, which protects sites of Heritage value prescribed under the *Heritage Conservation Act.*
- *Northern Territory Marine Pollution Act 1999:* Controls the discharge of pollutants into the ocean from ships or ocean going vessels, including fixed or floating platforms in coastal waters. Wastes created and discharged from project ships and vessels in coastal waters will be governed by this Act.
- *Territory Parks and Wildlife Conservation Act 1979:* Applies statutory obligations in relation to the protection of vegetation, flora and fauna to the project. The Act allows the listing of threatened species with special conservation status and requires a permit to be granted prior to interference with these species.
- *Waste Management and Pollution Control Act 1998*: Provides for the protection of the environment through encouragement of effective waste management and pollution prevention measures. The Act does not apply to wastes that are confined to the site on which they are generated, but requires licensing and registration for wastes that are discharged offsite.
- *Northern Territory Petroleum (Submerged Lands) Act 1982*: This Act mirrors the *Commonwealth Petroleum (Submerged Lands) Act 1967*. The Act states that a licence is required for exploration and recovery of petroleum and states that operations must not interfere to a greater extent that is necessary with navigation, fishing, conservation of sea and its resources. This Act applies to the nearshore and offshore components of the project.
- *Energy Pipelines Act 1982:* This stipulates requirements for the construction, operation, maintenance and decommissioning of onshore pipelines in the Northern Territory, as well as environmental management requirements. The Act applies to the onshore section of the export pipeline route. Under the Act, discrete licences, permits and plans are required for the construction and operation of a pipeline.

A comprehensive list of applicable Northern Territory legislation can be found in **Appendix B**, **Volume 1** of this Draft EIS.

In addition to legislative requirements, applicable Northern Territory environmental guidelines and strategies will be adhered to during the project life. Such guidelines include:

- *Mangrove Management in the Northern Territory 2002* - provides direction for the research and management of mangrove ecosystems in the Northern Territory. Effective management will be achieved by:
  - highlighting mangrove areas which have specific conservation, economic or community values;
  - ongoing monitoring and reporting on the condition of mangroves;
  - research to fill information gaps;
  - utilising current legislative mechanisms to conserve these values;
  - ensuring that future coastal development is progressed in an ecologically sustainable manner.
- *Strategy for the Conservation of Marine Biodiversity in the Northern Territory of Australia* - outlines a number of actions that target the protection of marine biological diversity of marine systems in the Northern Territory.
- *Northern Territory Parks & Conservation Plan* - The Department of Infrastructure, Planning and Environment (DIPE) is developing a new Northern Territory Parks and Conservation Masterplan. The Masterplan will be prepared in partnership with the Commonwealth Department of Environment and Heritage and the Northern Territory's Aboriginal Land Councils. The purpose of the project is to provide a vision and blueprint for the conservation of the Northern Territory's extensive variety of plants and animals.
- *Strategy for Conservation through the Sustainable Use of Wildlife in the Northern Territory of Australia 1997* - enhances the conservation of Northern Territory plants and animals through the development of programs incorporating their sustainable use.
- *Strategy for the Conservation of Species and Ecological Communities Threatened with Extinction in the Northern Territory of Australia 1998* - enables those species and ecological communities threatened with extinction to survive and prosper in their natural habitats, and to minimise the chance of more species and communities becoming threatened.
- *Strategy for the Conservation of Biological Diversity of the Wetlands of the Northern Territory of Australia 2000* - the Strategy has been developed to conserve and enhance wetland bio-diversity in the Northern Territory.
- *Draft Management Programme for Cycads in the Northern Territory 2003–2008* - developed and implemented, to ensure viable wild populations of all cycads and cycad habitats across the Northern Territory are maintained. The major aims of this management programme are to promote the conservation of cycad populations through wise land management practices, develop and apply strategies for their sustainable use and promote public awareness and education.

1.8.2 Commonwealth of Australia Primary Legislation

Relevant Commonwealth legislation applicable to the Blacktip Project includes:

- *Aboriginal and Torres Strait Islander Heritage Protection Act 1984*: This Act is available to Aboriginal people as a mechanism to protect sites of heritage significance in addition to Territory and State or heritage legislation. It is not a requirement in this situation but is able to be used by Aboriginal people should they so decide.
- *Aboriginal Land Rights (NT) Act 1976:* This Act sets up the processes for managing land that is Aboriginal land and the process by which development proponents can obtain an interest in Aboriginal land. Formerly used to claim land on behalf of traditional Aboriginal owners – the Daly River/Port Keats Land Trust land was designated as Aboriginal land at the commencement of the Act.
- *Australian Ballast Water Management Requirements & Australian Quarantine Regulations:* Protects Australia from the introduction of pest species, including marine pest species which may be introduced by international shipping. Under these requirements, high risk ballast water must be disposed of outside Australia's territorial water limit (12 nm).
- *Australian Heritage Commission Act (No 1) 2003:* The Act makes amendments to the EPBC Act and establishes a new heritage regime for the Commonwealth. It sets out the steps for entering places on the National Heritage List and the Commonwealth Heritage List, management of National and Commonwealth heritage places, requirements for impacts of proposals involving National Heritage places and requirements for Commonwealth agencies in relation to Commonwealth Heritage Places.
- *Environmental Protection and Biodiversity Conservation Act 1999:* Requires that any proposal impacting upon an area with environmental significance under Commonwealth authority be referred to the Commonwealth for approvals in addition to approvals required at a state level.
- *Native Title Act 1993:* This Act allows for the recognition of native title through a claims and mediation process and also sets up regimes for obtaining interests in land or waters where native title might exist. The proponent will seek to enter into an Indigenous Land Use Agreement, pursuant to this Act, with the relevant native title group, if any, in relation to the land and waters associated with the project.
- *Petroleum (Submerged Lands) (Management of Environment) Regulations 1999:* Set out the requirements for environmental management of petroleum exploration and production activities, including the formation of environmental management plans and the implementation of these plans.
- *Protection of the Sea (Prevention of Pollution from Ships) Act 1983:* Regulates discharges from ships, including fixed and floating platforms. It regulates discharges of oil and petroleum products in accordance with the International Convention for the Prevention of Pollution from Ships (1973), and imposes fines upon violation of the Convention.

Further detail of relevant Commonwealth legislation can be found in **Appendix B**, **Volume 1** of this Draft EIS.

1.8.3 Technical Standards & Codes of Practice

All design, construction and operation will be in accordance with the latest versions of the standards detailed in **Appendix B**. As well as complying with all applicable Australian Standards, design and construction must conform to the following authorities:

- The Building Code of Australia;
- Northern Territory's Work Health Authority (NT WorkSafe).

The 2.5 km onshore component of the export pipeline will be designed, constructed, operated and maintained as per Australian Standard (AS) 2885 'Gas and Liquid Petroleum' (Parts 1, 2, 3 and 5). Part 4 of this standard 'Offshore Submarine Pipeline Systems' applies to the offshore pipeline, and adopts many of the requirements of the international subsea pipeline design standard Det Norske Veritas (DNV) OSF101. AS 2885.4 states the following:

> 'All requirements for offshore submarine pipeline systems with respect to safety, design, materials, fabrication, installation, testing, commissioning, operation, maintenance, requalification and abandonment shall be in accordance with the latest edition of DNV OSF101 'Submarine Pipeline Systems'. The requirements of AS 2885.1, AS 2885.2, AS 2885.3 and AS 2885.5 are not applicable. Should DNV OS-F101 be silent with regard to any aspect of the scope then, subject to Clause 6, guidance shall be sought in the first instance from other relevant Australian Standards'.

The Australian Pipeline Industry Association *(*APIA) Code of Practice has been established to encapsulate the Best Practice Techniques and Methods presently available to mitigate or eliminate the environmental impact of pipeline construction and operation on the receiving environment. Essentially the code aims to provide guidance and direction in the management of the environmental aspects of pipeline planning, design, construction, operation and decommissioning. The APIA 'Code of Environmental Practice Part C Onshore Pipeline Decommissioning' (ECOS Draft 2003) is due to be finalised by the end of 2004 (**Section 4.9.5**).

Other Australian Standards applicable to the Blacktip Project are included in **Appendix B, Volume 1** of this Draft EIS.

1.8.4 Greenhouse Gas Strategy

1.8.4.1 National Greenhouse Strategy

The National Greenhouse Strategy has been developed by the Commonwealth, Territory and State Governments in association with the Australian Local Government Association, industry and community groups.

The Strategy focuses action on three fronts: improving awareness and understanding of greenhouse issues; limiting the growth of greenhouse emissions and enhancing greenhouse sink capacity; and developing adaptation responses. The limitation of Australia's net greenhouse gas emissions, consistent with the Kyoto Protocol, has been identified by governments as an important area for action.

As a result, key actions identified to reduce emissions include:

- partnerships for greenhouse action involving governments, industry, and the community;
- efficient and sustainable energy use and supply;
- efficient transport and sustainable urban planning;
- greenhouse sinks and sustainable land management;
- greenhouse best practice in industrial processes and waste management.

The strategies developed under these actions are administered by the Australian Greenhouse Office. Initiatives which are relevant to the Blacktip Project include the Greenhouse Challenge Partnerships that are built between industry and Government, and establishment of the National Greenhouse Accounting System to provide a comprehensive description of all greenhouse sources and sinks.

1.8.4.2 Northern Territory Greenhouse Gas Strategy

In addition to National responses, the Northern Territory Government is developing a locally focussed Greenhouse Strategy. The strategy will be underpinned by a set of policy goals:

- To manage the risks and maximise the opportunities for the Territory in dealing with issues associated with climate change.
- To develop and implement practical and cost-effective ways to limit the impacts of enhanced global warming resulting from human induced greenhouse gas emissions.
- To respond to greenhouse emissions and climate change issues in a holistic manner, taking into account environmental, social and economic considerations.

The Northern Territory Government has defined the key functions of the Greenhouse Strategy as:

- improving awareness;
- coordinating an integrated response across the Northern Territory;
- creating a Northern Territory Greenhouse Inventory.

A discussion paper for the Greenhouse Strategy was released in 2003. The subsequent stages of implementation will entail discussions with key stakeholders, followed by preparation of a Strategy.

In order to provide guidance to proponents in the interim, the Northern Territory Government has established a guide entitled 'Environmental Impact Assessment Guide - Greenhouse Gas Emissions' which outlines the minimum requirements for greenhouse gas management for new or expanding operations. The guide has been included in the EIS Guidelines (**Appendix A, Volume 1**), and therefore forms part of the assessment of the proposed Blacktip Project under the *Environmental Assessment Act.*

1.8.5 International Treaties and Conventions

Numerous international agreements relate to petroleum operations and the management of environmental impacts from these operations. Where Australia has ratified these agreements they are incorporated into domestic law. As such, the international obligations contingent upon the Blacktip Project are discharged by abiding by the relevant Commonwealth and Northern Territory legislation as detailed in **Section 1.8.1** and **1.8.2**. Some agreements, however, have particular relevance to the Blacktip Project, and these include:

- *United Nations Convention on the Law of the Sea 1982 (UNCLOS);*
- *Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) 1979;*
- *International Convention on Liability for Oil Pollution Damage (CLC 92);*
- *International Convention for the Prevention of Pollution from Ships (MARPOL 73/78);*
- *International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (FUND 92);*
- *International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC 90);*
- *Framework Convention on Climate Change (FCCC) 1992;*
- *Convention on Biological Diversity 1992;*
- *The Agreement between the Government of Australia and the Government of the Peoples Republic of China for the Protection of Migratory Birds and their Environment (CAMBA);*
- *The Agreement between the Government of Japan and the Government of Australia for the Protection of Migratory Birds and Birds in Danger of Extinction and their Environment (JAMBA).*

1.9 Related Environmental Approvals

Formal government approval of the Final EIS is one of the first major steps in advancement of a project. However, once EIS approval has been granted there are several other project and environmental approvals that have to be granted to ensure the project is undertaken in an environmentally acceptable manner. A number of regulatory authorities will be responsible for granting these approvals because the offshore and onshore locations of the Blacktip Project infrastructure fall under a number of jurisdictions including Territory, State and Commonwealth which operate in geographically distinct regions (**Figure 1-1**).

Offshore exploration and development of petroleum resources beyond coastal waters are conducted under the *Commonwealth Petroleum (Submerged Lands) Act 1967* (PSLA) and associated legislation including the *Petroleum (Submerged Lands) (Management of Environment) Regulations 1999*, also known as PSLMER.

Consequently, the offshore development and a short portion of the subsea export pipeline will be regulated by Western Australian-administered Commonwealth legislation, through the Western

Australian *Petroleum (Submerged Lands) Act 1982*. The Department of Industry and Resources (DoIR) is the designated authority for project related activities in Western Australian-administered Commonwealth Waters, and will therefore be responsible for the issuing of permits and licences required under the Commonwealth PSLA.

The Northern Territory will administer the longer portion of the subsea pipeline located in Northern Territory-administered Commonwealth waters, through the Northern Territory *Petroleum (Submerged Lands) Act 2003.* The gas export pipeline and the condensate and PW pipelines, to the extent that they are in Northern Territory waters, will also be administered by the Northern Territory under the Northern Territory *Petroleum (Submerged Lands) Act 2003*. The Department of Business, Industry and Resource Development (DBIRD) administers petroleum exploration and production activities within the Northern Territory and in Commonwealth waters adjacent to the Northern Territory, on behalf of the Commonwealth of Australia.

Licences and approvals required under PSLA and associated regulations in addition to EIS approval include:

- production licence for the offshore facilities to recover petroleum in Commonwealth waters;
- offshore pipeline licences for construction and operation in Commonwealth (Northern Territory and Western Australia) waters and also in Northern Territory coastal waters;
- Environment Plans including environmental assessments, implementation plans and reporting and monitoring arrangements;
- Oil Spill Contingency Plan outlining response strategy, response structure and relevant decision-making information;
- safety case.

An onshore pipeline licence is also required for the short 2.5 km pipeline section under the *Energy Pipelines Act 1982*.

Each of these approval processes is summarised below.

Production Licence: Under the PSLA, offshore petroleum production facilities require a petroleum production licence that provides the legal title to recover petroleum from an area. The licence is subject to conditions that must be met by the licensee, and is initially granted for a period of 21 years. The licence term may be extended.

Offshore Pipeline Licence: Any flowlines or pipelines within Commonwealth (Northern Territory and Western Australia) or Northern Territory coastal waters, require a pipeline licence under the PSLA.

Environment Plan (EP): The petroleum activity cannot be carried out unless an approved Environment Plan is in place for the project, as per PSLMER. The Environment Plan has an operational focus and identifies any potential or actual environmental aspects and possible effects

the project may have on these. The systems and procedures to be used for managing, monitoring and mitigating must be described in the Environment Plan.

Oil Spill Contingency Plan: Under the PSLA, a project specific Oil Spill Contingency Plan must be in place that outlines the response structure, response strategy and relevant information for decision making should an oil spill occur.

Safety Case: The *Petroleum (Submerged Lands)(Management of Safety on Offshore Facilities) Regulations 1996* require that the operator must have in place an approved Facility Description, a Formal Safety Assessment and those parts of the Safety Management System that relate to construction and installation, prior to the installation and construction of facilities. The operator thereby obtains 'Consent to Construct and Install'. The petroleum facilities cannot be operated unless the operator has obtained 'Consent to Use', which is only granted if the facility has an approved (or provisionally approved) Safety Case in force.

Onshore Pipeline Licences: The *Energy Pipelines Act 1982* stipulates requirements for the construction, operation, maintenance and closure of onshore pipelines in the Northern Territory, as well as environmental management requirements. This applies to the Blacktip Project's export pipeline onshore segment connecting to the onshore gas plant. Under the Act, discrete licences are required for the construction and operation of a pipeline.

These approvals can only be obtained after the project's Final EIS has been formally approved.

1.10 Land Tenure Approvals

In relation to the onshore zone, ie landward of the mean low water mark, the form of land tenure that the project will seek will be a long term lease pursuant to section 19 (4A) of the *Aboriginal Land Rights Act 1976* (ALRA). The length of the lease will be 25 years, plus two further rights of renewal of 25 years each and will be negotiated with the Northern Land Council (NLC), on behalf of the traditional Aboriginal owners. Under section 19 (5), the Land Council:

'…shall not give a direction under this section for the grant, transfer or surrender of an interest or estate in land unless the Land Council is satisfied that-

a) the traditional Aboriginal owners (if any) of that land understand the nature and purpose of the proposed grant, transfer or surrender and, as a group, consent to it;
b) any Aboriginal community or group that may be affected by the proposed grant, transfer or surrender has been consulted and has had adequate opportunity to express its view to the Land Council;
c) in the case of a grant of an estate or interest – the terms and conditions on which the grant is to be made are reasonable.'

As the proposed lease is in excess of 10 years, under section (7)(b) of the ALRA, the Commonwealth Minister must consent to the grant.

In relation to the offshore zone, ie seaward of the mean low water mark, and within NT waters (3 nm) the approvals sought will be pipeline licences pursuant to PSLA. No specific land tenure is required; however, in the event that any native title exists, it is likely to be of non-exclusive nature and attracts procedural rights of consultation, pursuant to the *Native Title Act 1993*. Notwithstanding, the project proponent will be seeking to agree an Indigenous Land Use Agreement (ILUA) with any native title interests and have this certified by the Northern Land Council and then registered with the National Native Title Tribunal.

1.11 EIS Guidelines

1.11.1 Project Guidelines

EIS Guidelines (**Appendix A**, **Volume 1**) have been developed jointly by the Northern Territory and Commonwealth Governments to assist Woodside with preparation of the Draft EIS. The objective of these Guidelines is to identify those matters that should be addressed in the Draft EIS.

The Guidelines are based on the initial outline of the proposal in the NOI (Woodside 2003a & b). With ongoing changes to the project as design proceeds it is recognised that not all matters indicated in the Guidelines may be relevant to all aspects of the proposal and only those matters relevant to the proposal are therefore addressed. Conversely, the Guidelines are not seen as exhaustive and have not been interpreted as such. Any matters emerging as worthy of assessment from scientific studies, project design changes, and the public consultation process have been incorporated into this Draft EIS.

1.11.2 Project Exclusions

This Draft EIS is structured on the Guidelines issued in response to the NOI. At the time the NOI was submitted the base case included the following elements:

- offshore unmanned wellhead platform;
- approximately 110 km of gas export subsea pipeline to shore;
- onshore or offshore gas processing facility;
- up to 10 km of onshore gas pipeline and a condensate pipeline to the onshore gas plant.

Project components that were included in the original NOI and subsequently issued Guidelines and which have now been excluded from the scope of the Blacktip Project and Draft EIS include:

- separate condensate pipeline to the onshore gas plant;
- offshore gas processing plant.

The latter has been assessed as an alternative in **Section 5** of this Draft EIS.

To facilitate cross-referencing of this Draft EIS with the Guidelines, a cross-reference table has been provided in **Appendix C**, **Volume 1**.

1.12 Environmental Management Policy

Woodside is dedicated to a corporate Environmental Policy (**Appendix D, Volume 1**) that provides a public statement of its corporate commitment to protecting the environment during all activities, including offshore exploration and production. Woodside also has a number of more specific environmental guidelines, which are encapsulated in Woodside's Environmental Standards and Aspirations document (Woodside 2003c). Amongst other topics, the guidelines cover atmospheric emissions, liquid and solid discharges and consumption of resources such as fuel and water.

In addition, Woodside employs a formal and documented Health, Safety and Environmental Management System (HSE-MS) that ensures a structured approach to the management and minimisation of impacts from Woodside's operations, and drives continual improvement in Woodside's environmental performance. The HSE-MS provides confidence to regulators, employees, external stakeholders and the community that Woodside is environmentally responsible.

Woodside recognises that operations are carried out in environmentally sensitive areas, and shares the desire of the community to develop natural resources in a way that protects people and the environment. All activities will be planned and performed so that adverse effects on the environment are either avoided or kept to ALARP while meeting all statutory requirements.

1.13 EIS Structure

The remainder of this Draft EIS is presented in two volumes and is structured as follows:

Volume 1 – Main EIS Report

- The Draft EIS is preceded by an Executive Summary.
- Section 1 provides an introduction.
- Section 2 presents the project objectives and benefits.
- Section 3 outlines the stakeholder engagement programme.
- Section 4 describes the project.
- Section 5 summarises alternative project proposals considered including alternative gas processing scenarios.
- Section 6 describes the projects waste and emissions inventory.
- Section 7, 8 & 9 describe the existing marine, terrestrial, economic and land use environment within the project area.
- Section 10 presents the risk assessment methodology for the EIS.
- Section 11, 12 & 13 identify potential marine, terrestrial, economic and land use impacts, preventative and management measures.
- Section 14 summarises the Social Impact Assessment (SIA) undertaken for the project.
- Section 15 describes the environmental management of the project.
- Section 16 outlines the project's Health and Safety Risk Assessment.

- Section 17 & 18 provides a glossary and reference list, respectively.
- Section 19 provides acknowledgments.

Volume 1 - Appendices

- Appendix A presents guidelines for the preparation of a Draft Environmental Impact Statement.
- Appendix B provides a summary of relevant Commonwealth and Northern Territory legislation.
- Appendix C provides a table to enable the cross-referencing of the EIS guidelines with the relevant Draft EIS section.
- Appendix D presents Woodside's Health and Safety Policy, Corporate Environmental Policy and Aboriginal Affairs Policy.

Volume 2 – Technical Appendices

- Appendix A presents the noise assessment and modelling study undertaken by Air Noise Environment (ANE).
- Appendix B presents the offshore and intertidal environmental surveys conducted as part of the baseline data collection for the project area undertaken by Sinclair Knight Merz (SKM).
- Appendix C presents the specialist report for Sea Turtles, Dugongs and Seagrasses in the vicinity of the project area produced by Dr Michael Guinea (Charles Darwin University).
- Appendix D presents a desktop assessment of Acid Sulphate Soils for the onshore pipeline section undertaken by Sinclair Knight Merz (SKM).
- Appendix E presents a baseline hydrology and water quality report prepared by EWL Sciences.
- Appendix F presents a baseline vegetation and flora study undertaken by EcOz Environmental Services.
- Appendix G presents a Biting Insect Survey and Assessment undertaken by NT Medical Entomology.
- Appendix H presents a Terrestrial Fauna Survey undertaken by EcOz Environmental Services.
- Appendix I presents the Archaeology and Historic Heritage Study prepared by Begnaze.
- Appendix J presents a Produced Formation Water (PFW) Assessment Report undertaken by International Risk Consultants (IRC) Environment.
- Appendix K presents the results of Oil Spill Risk Assessment Modelling performed by International Risk Consultants (IRC) Environment.
- Appendix L Report on Species with Indigenous Cultural Values prepared by Smyth and Bahrdt Consultants.
- Appendix M presents a Social Impact Assessment for the project development undertaken by IMpaxSIA Consulting.

- Appendix N presents a desktop study for the health related hazards undertaken by Worley.
- Appendix O presents a Framework Offshore Environmental Management Plan prepared by Sinclair Knight Merz (SKM).
- Appendix P presents a Framework Marine and Intertidal Monitoring Programme prepared by Sinclair Knight Merz (SKM).