

## 14.0 ENVIRONMENTAL MANAGEMENT FRAMEWORK

This PER and associated appendices make reference to both the Approved Gorgon Gas Development and the Revised Gorgon Gas Development, which is the subject of this PER. For clarification purposes, the following definitions are provided:

- ◆ “the Approved Gorgon Gas Development” or “the Approved Development” refers to the development proposed in the EIS/ERMP (Chevron Australia 2005a) and subsequently approved under Statement No. 748 and EPBC Reference: 2003/1294
- ◆ “the Gorgon Gas Development Revised and Expanded Proposal” or “the Revised Gorgon Gas Development” or “the Revised Proposal” refers to the development proposed in this PER, which is yet to gain approval
- ◆ “the Gorgon Gas Development” refers to the entire proposal. This descriptor may be used when the reference is being made to elements of “the Revised Proposal” described in the PER when they replace the elements of “the Approved Development” which have changed to create the final product as proposed in this PER.

### 14.1 Operational Excellence Management System

Chevron Australia has established an Operational Excellence Management System (OEMS) which is the framework for management of safety, health and the environment. Chevron’s OEMS aims to deliver industry leading performance through safe, reliable, efficient and environmentally sound operations.

The OEMS consists of three parts:

5. Leadership Accountability: leaders are accountable not only for achieving results, but achieving them in the right way by behaving in accordance with prescribed values.
6. Management System Process, comprising:
  - a. developing Operational Excellence (OE) visions and objectives
  - b. completing a comprehensive evaluation to identify priority areas in OE processes and performance against established objectives
  - c. developing three-year plans to manage priorities and incorporating those plans into business plans and assigning accountabilities
  - d. implementing planned actions and monitoring plan progress and OE performance
  - e. annually evaluating progress on performance and identifying necessary adjustments to plans.
7. OE Expectations, which include (but are not limited to):
  - a. designing and constructing facilities in an environmentally sound manner
  - b. environmental stewardship: working to prevent pollution and waste; striving to continually improve environmental performance and limiting impacts from our operations
  - c. complying and verifying conformance with company policy and all applicable laws and regulations.

The OEMS is designed to be consistent with and, in some respects, go beyond ISO 14001:2004 (Environmental Management Systems – Specifications with Guidance for Use) (AS/NZS 2004a).

### 14.2 Chevron ABU Vision, Values and Policies

Chevron Australia’s commitment to sound environmental management in all aspects of operations is reflected in Chevron Policy 530 – Protecting People and the Environment.

The Chevron Australasia Strategic Business Unit (ABU) Vision is to have a culture and work environment where people and the environment are injury and incident free.

### 14.3 Principles of Environmental Protection

In 2003 the EP Act was amended to include a core set of principles that are applied by the EPA in assessments (EPA 2004a). As listed in Section 4a of the EP Act, these environmental protection principles are:

- ◆ precautionary principle
- ◆ principle of intergenerational equity
- ◆ principle of the conservation of biological diversity and ecological integrity
- ◆ principles relating to improved valuation, pricing and incentive mechanisms
- ◆ principles of waste minimisation.

The GJVs have considered these principles in its assessment of the environmental impacts associated with the Revised Proposal (Table 14.1).

**Table 14.1: Principles of Environmental Protection**

Principle	Consideration Given In Revised Proposal	Section Addressed in PER
<p>1. Precautionary Principle</p> <p>Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.</p> <p>In the application of the precautionary principle, decisions should be guided by:</p> <p>a. careful evaluation to avoid, where practicable, serious or irreversible damage to the environment</p> <p>b. an assessment of the risk-weighted consequences of various options.</p>	<p>A risk assessment process has been adopted in the development of this project with the intention of identifying issues early in the process to enable planning for avoidance and/or mitigation.</p> <p>Part of this process includes undertaking detailed site investigation of the biological and physical environs. Where these investigations identify significant environmental issues, project design was modified to avoid or reduce potential impacts, where reasonably practicable.</p> <p>A number of management plans will be prepared and implemented to manage potential affects on terrestrial, subterranean and marine flora and fauna, as relevant.</p>	<p>Refer to risk-based assessment approach outlined in Section 5.0 and detailed assessment of factors in PER Sections 6.0 through to 11.0.</p>
<p>2. Intergenerational Equity</p> <p>The present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.</p>	<p>The GJVs are committed to meeting the ten sustainability principles developed for the Gorgon Gas Development to contribute to sustainable development in Australia. These principles ensure that the GJVs operations deliver more value with less impact.</p> <p>Integration of these sustainability principles ensures the environment in which the GJVs operate is maintained and, where possible, enhanced for future generations.</p>	<p>Refer to PER Section 14.4.</p>
<p>3. Conservation of Biological Diversity and Ecological Integrity</p> <p>Conservation of biological diversity and ecological integrity should be a fundamental consideration.</p>	<p>Conservation of biological diversity and ecological integrity is a major consideration for the Gorgon Gas Development. Biological investigations were undertaken to provide sufficient</p>	<p>Refer to PER Sections 6.0, 7.0 and 15.0.</p>

Principle	Consideration Given In Revised Proposal	Section Addressed in PER
	local and regional information to assess the environmental significance of the Revised Proposal. A number of management plans will be prepared and implemented to manage potential affects on terrestrial, subterranean and marine flora and fauna, as relevant.	
4. Improved Valuation, Pricing and Incentive Mechanisms.	Not applicable.	Not applicable.
5. Waste Minimisation All reasonable and practicable measures should be taken to minimise the generation of waste and its discharge into the environment.	A number of waste minimisation measures are planned to be implemented, including implementing the principles of reduce, reuse and recycle in relation to solid and liquid waste management (as outlined in the Solid and Liquid Waste Management Plan). Injection of reservoir CO <sub>2</sub> into the Dupuy Formation	Refer to PER Section 15.0, and 12.0.

#### 14.4 Environmental Management Plans

Numerous management plans are required to be prepared as conditions of the Approved Gorgon Gas Development. These conditions were issued by the Commonwealth and Western Australian governments (EPBC Reference: 2003/1294, Sea Dumping Permit No. SD2004/0030, and Statement No. 748 respectively); some of the conditions issued in the approvals are very similar.

Management plans required by the Commonwealth approval are as follows:

- ◆ Terrestrial and Marine Quarantine Management Plan or System
- ◆ Terrestrial Facilities Baseline State and Environmental Monitoring Program
- ◆ Coastal and Marine Baseline State Survey Plan and Marine Environmental Monitoring Program
- ◆ Terrestrial and Marine Facilities Construction Environment Management Plan(s) (including dredging and spoil disposal)
- ◆ Terrestrial and Marine Facilities Operations Environment Management Plan(s)
- ◆ Long-Term Marine Turtle Management Plan
- ◆ Carbon Dioxide Injection Monitoring Program
- ◆ Decommissioning and Closure Plan.

Management plans required by the State are as follows:

- ◆ Terrestrial and Subterranean Baseline State and Environmental Impact Report
- ◆ Terrestrial and Subterranean Environment Protection Plan
- ◆ Terrestrial and Subterranean Environment Monitoring Program
- ◆ Terrestrial and Marine Quarantine Management System
- ◆ Short Range Endemics and Subterranean Fauna Monitoring Plan
- ◆ Fire Management Plan
- ◆ Groundwater Abstraction Management Plan

- ◆ Coastal and Marine Baseline State and Environmental Impact Report
- ◆ Long-Term Marine Turtle Management Plan
- ◆ Marine Facilities Construction Environmental Management Plan
- ◆ Dredge and Spoil Disposal Management and Monitoring Plan
- ◆ Horizontal Directional Drilling Management and Monitoring Plan
- ◆ Offshore Gas Pipeline Installation Management Plans
- ◆ Coastal Stability Management and Monitoring Plan
- ◆ Greenhouse Gas Abatement Program
- ◆ Air Quality Management Plan
- ◆ Solid and Liquid Waste Management Plan
- ◆ Aboriginal Cultural Heritage Management Plan
- ◆ Post-construction Rehabilitation Plan
- ◆ Project Site Rehabilitation Plan
- ◆ Decommissioning and Closure Plan.

A summary of the application of the existing Conditions of the Commonwealth and Western Australian approvals to the Revised Proposal is presented in Appendix H.

The GJVs believe that the implementation of conditions consistent with those prescribed for the Approved Development, when applied in conjunction with current regulation, will effectively manage all environmental aspects of the Revised Proposal (Section 15.5).

Furthermore, as part of the Approved Development, the GJVs have agreed to implement a suite of environmental undertakings to address significant residual environmental risks, and to fund indexed Net Conservation Benefits as set out in the *Gorgon Gas Processing and Infrastructure Project Agreement* clause 11 (Schedule 1 *Barrow Island Act 2003* (WA)). See Section 15 for more detailed description of these arrangements.