



Gorgon Gas Development and Jansz Feed Gas Pipeline

Terrestrial and Marine Quarantine Management
System

Document ID: GOR-COP-01854
Revision Date: 29 March 2017
**Information
Sensitivity:** Public

Revision ID: 1.0
Next Revision Due: 29 March 2022

Contents

1.0	Introduction	5
1.1	Proponent	5
1.2	Project	5
1.3	Environmental Approvals.....	7
1.4	Purpose of this QMS	7
1.4.1	Requirement for this QMS	7
1.4.2	Objectives.....	9
1.4.3	Contents of this QMS.....	9
1.5	Quarantine Expert Panel.....	12
1.6	Historical Revisions of the QMS	12
2.0	Relevant Facilities and Activities	14
2.1	Terrestrial Facilities	14
2.2	Marine Facilities	14
3.0	Barrow Island Quarantine Policy	16
4.0	Risk Assessment.....	17
4.1	Methodology	17
4.1.1	Quarantine Hazard Analysis.....	17
4.1.2	Quarantine Risk Register	17
5.0	Quarantine Management Measures	19
5.1	Prescribed Quarantine Management Measures.....	19
5.1.1	Measures to Prevent Introductions of NIS and Marine Pests.....	19
5.1.2	Measures to Detect NIS and Marine Pests	21
5.1.3	Measures to Control and Eradicate NIS and Marine Pests	23
5.1.4	Management of NIS and Marine Pests.....	24
5.1.5	Hygiene Measures.....	25
5.1.6	Species Action Plans.....	25
5.1.7	Mitigating Impacts Caused by NIS and Marine Pests and Eradication of NIS and Marine Pests	26
5.2	Systematic Quarantine Management Measures.....	26
5.2.1	Contractor Quarantine Management	26
5.2.2	Communication of Quarantine Requirements	27
5.2.3	Quarantine Zones	28
5.2.4	Competency Development	29
5.2.5	Quarantine Information Management	30
5.2.6	Continuous Improvement.....	31
6.0	Performance Objectives and Standards.....	32
6.1	Objectives	32
6.2	Performance Standards.....	32
6.3	Relevant Documentation	32
7.0	Performance Monitoring, Reporting, and Review	36
7.1	Monitoring Quarantine Performance	36
7.2	Incident Reporting.....	36
7.3	Compliance Assurance	37
7.4	Review of the QMS	37
8.0	Terminology.....	39
9.0	References.....	49

Tables

Table 1-1: State and Commonwealth Approvals	7
Table 1-2: Condition Requirements Addressed in this QMS	9
Table 6-1: Objectives and Performance Standards.....	33
Table 7-1: Incident Reporting Requirements	37
Table 8-1: Terminology	39
Table 9-1: References	49

Figures

Figure 1-1: Location of Barrow Island and the Greater Gorgon Area.....	6
Figure 2-1: Gorgon Gas Development Terrestrial Facilities on Barrow Island	15
Figure 3-1: Barrow Island Quarantine Policy	16
Figure 5-1: Quarantine Document Framework.....	19

Appendices

Appendix A Measures to Prevent Introductions of NIS and Marine Pests	52
Appendix B Species Action Plan List	57
Appendix C Compliance Reporting Table.....	63

1.0 Introduction

1.1 Proponent

Chevron Australia Pty Ltd (Chevron Australia) is the Proponent and the person taking the action for the Gorgon Gas Development and Jansz Feed Gas Pipeline (collectively referred to hereafter as the Gorgon Gas Development) on behalf of the following companies (collectively known as the Gorgon Joint Venturers):

- Chevron Australia Pty Ltd
- Chevron (TAPL) Pty Ltd
- Shell Development (Australia) Pty Ltd
- Mobil Australia Resources Company Pty Limited
- Osaka Gas Gorgon Pty Ltd
- Tokyo Gas Gorgon Pty Ltd
- JERA Gorgon Pty Ltd.

1.2 Project

Chevron Australia is developing the gas reserves of the Greater Gorgon Area. The gas will be processed in a gas treatment plant on Barrow Island, which is located off the Pilbara coast 85 km north-north-east of Onslow in Western Australia (WA) (Figure 1-1).

Subsea gathering systems and pipelines deliver feed gas from the Gorgon and Jansz–Io gas fields to the west coast of Barrow Island. The underground feed gas pipeline system then traverses Barrow Island to the east coast where the Gas Treatment Plant (GTP) is located. The GTP includes natural gas trains that produce liquefied natural gas (LNG) as well as condensate and domestic gas. Carbon dioxide (CO₂), which occurs naturally in the feed gas, is separated during the production process and injected into deep rock formations below Barrow Island. The LNG and condensate is loaded onto tankers from a jetty and then transported to international markets. Gas for domestic use is exported by pipeline from Barrow Island to the domestic gas collection and distribution network on the WA mainland.

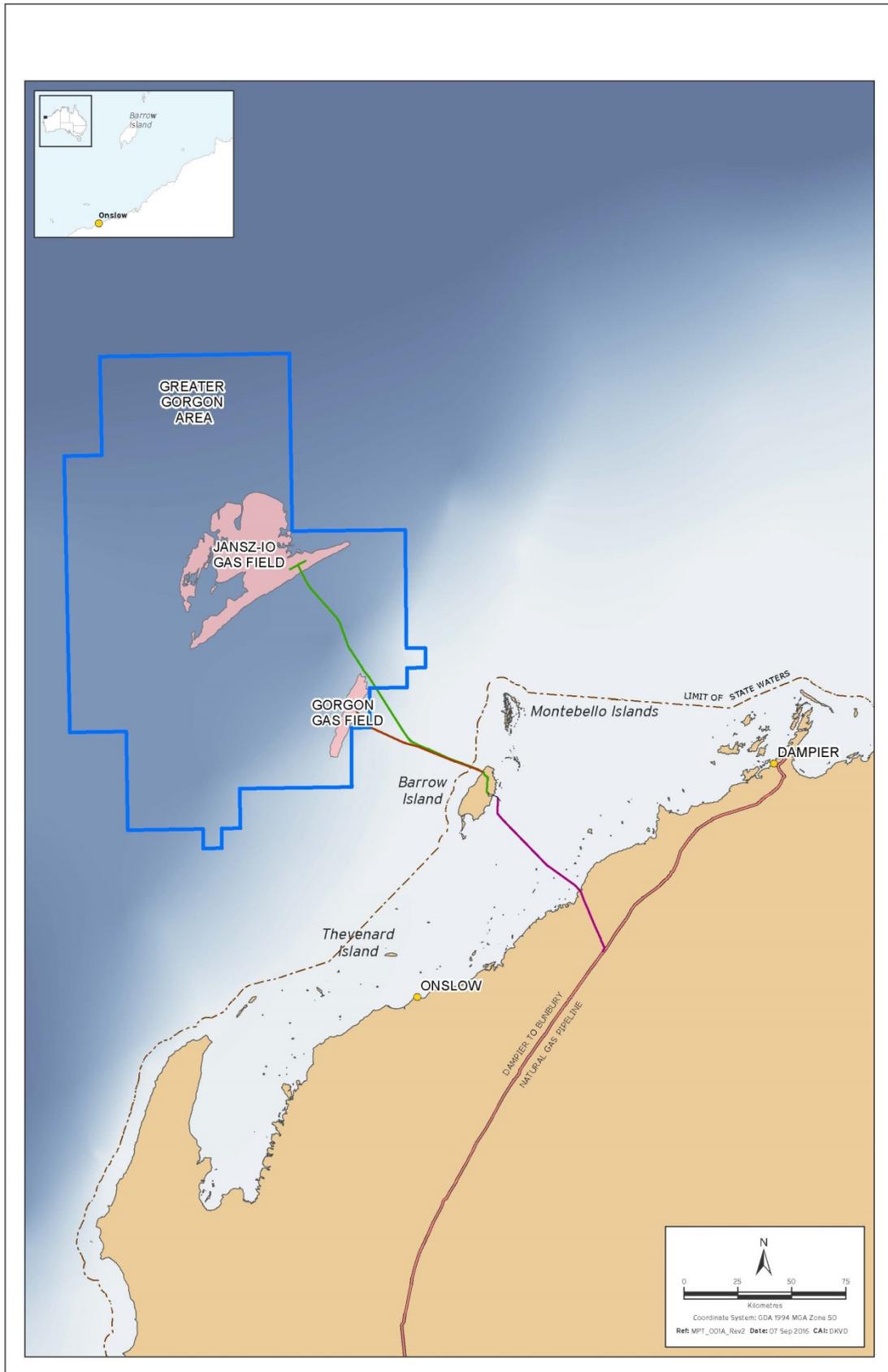


Figure 1-1: Location of Barrow Island and the Greater Gorgon Area

1.3 Environmental Approvals

Table 1-1 summarises the State and Commonwealth approvals for the components of the Gorgon Gas Development.

These approvals, and projects approved under these approvals, have been and may continue to be amended (or replaced) from time to time.

Table 1-1: State and Commonwealth Approvals

Project Approval Stage	State	Commonwealth
Jansz Feed Gas Pipeline	Ministerial Statement (MS) 769, 28 May 2008 (Ref. 1)	EPBC Reference: 2005/2184, 22 March 2006 (Ref. 2)
Initial Gorgon Gas Development (2 LNG trains)	Initial Gorgon Gas Development comprising two LNG trains – MS 748, 6 September 2007 (Ref. 10)	Initial Gorgon Gas Development comprising two LNG Trains – EPBC Reference: 2003/1294, 3 October 2007 (Ref. 5)
Revised and Expanded Gorgon Gas Development (3 LNG trains)	MS 800 (Ref. 3) provides approval for both the initial Gorgon Gas Development and the Revised and Expanded Gorgon Gas Development (comprising three LNG Trains). MS 800 supersedes MS 748.	The Revised and Expanded Gorgon Gas Development (EPBC Reference: 2008/4178 [Ref. 4]) was approved and the conditions for the initial Gorgon Gas Development (EPBC Reference: 2003/1294) were varied, 26 August 2009
Dredging Amendment	MS 865 (Ref. 11) provides approval to establish a restart mechanism in the event of a Project-attributable coral health management trigger. This statement is an amendment to Conditions 18, 20, and 21 of MS 800, 8 June 2011	Not applicable
Additional Support Area	MS 965 (Ref. 6) applies the conditions of MS 800 to an Additional Support Area, 2 April 2014	The conditions for the initial Gorgon Gas Development (EPBC Reference: 2003/1294) and for the Revised and Expanded Gorgon Gas Development (EPBC Reference: 2008/4178) were varied, 15 April 2014
Gorgon Gas Development Fourth Train Expansion ¹	MS 1002 (Ref. 7) applies the conditions of MS 800 to the Fourth Train Expansion, and has additional conditions, 30 April 2015.	EPBC Reference: 2011/5942.

1.4 Purpose of this QMS

1.4.1 Requirement for this QMS

1.4.1.1 State Environmental Approval Requirement

This Quarantine Management System (QMS) is required under Condition 10.1 of MS 800, as quoted below:

'Prior to commencement of construction of any terrestrial facilities listed in Condition 6.3 and the marine facilities listed in Condition 14.3, the Proponent shall submit the Quarantine Management System (QMS) to the Minister, taking into account the advice of the Quarantine Expert Panel (QEP) that meets the aim and objectives set

¹ The Fourth Train Expansion is not currently being implemented, and is not within the scope of this QMS.

out in Condition 10.3 and the requirements of Condition 10.4, as determined by the Minister, unless otherwise allowed in Condition 10.2.'

This QMS is also required under Condition 10.1 of MS 769:

'Prior to commencement of construction of any terrestrial facilities listed in Condition 6.3 and the marine facilities listed in Condition 12.3, the Proponent shall submit the QMS to the Minister, taking into account the advice of the QEP that meets the aim and objectives set out in Condition 10.3 and the requirements of Condition 10.4, as determined by the Minister, unless otherwise allowed in Condition 10.2.'

1.4.1.2 Commonwealth Environmental Approval Requirement

This QMS satisfies Condition 8.1 of EPBC Reference: 2003/1294 and Condition 8.1 of EPBC Reference: 2008/4178, as quoted below:

'Prior to commencement of construction of any terrestrial facilities listed in Condition 5.2 and the marine facilities listed in Condition 11.3, the person taking the action must submit the Quarantine Management System (QMS) to the Minister, for approval, taking into account the advice of the Quarantine Expert Panel (QEP) established under the Western Australian Minister's approval for the action, unless otherwise allowed in Condition 8.2.'

1.4.1.3 Barrow Island Act 2003 and Integrated Operations

The *Barrow Island Act 2003* (WA) and its Schedule 1 (Gorgon Gas Processing and Infrastructure Agreement) define key aspects of the Gorgon Gas Development and are the enabling legislation for the Gorgon Gas Development. The Act is also the primary instrument by which intra-island coordination concerning quarantine management measures is managed.

Certain matters covered by the *Barrow Island Act 2003* (WA) and its Schedule 1 are relevant to quarantine management of Barrow Island; these are:

- a quarantine management plan (Clause 7 (1)(f) of Schedule 1)
- establishment of the Barrow Island Coordination Council to coordinate certain matters for industry users of Barrow Island (Clause 13 of Schedule 1).

More specifically, Clause 13(e) (iii) and (iv) of Schedule 1 of the *Barrow Island Act 2003* (WA) requires these matters to be coordinated by the Barrow Island Coordination Council (BICC):

- "(iii) establishing, monitoring and reviewing from time to time procedures to apply to quarantine of all people and materials brought to Barrow Island for the purposes of the operations of any of the BICC Participants; and*
- (iv) planning and coordinating the BICC's role in emergency response to, and undertaking, where necessary, remediation of any suspected or actual non-compliance of quarantine in the operations of any of the BICC Participants."*

As required by the *Barrow Island Act 2003* (WA), the Gorgon Joint Venture and the Barrow Island Joint Venture partners have made commercial and operating agreements (e.g. Barrow Island Access Framework Agreement) for optimised integrated quarantine management on Barrow Island (Ref. 12; Commercial in Confidence).

The Terrestrial and Marine Quarantine Management System has been adopted by the Barrow Island Joint Venture (Ref. 12; Commercial in Confidence).

The Gorgon Project Barrow Island Coordination Council Development Proposal (Ref. 12; Commercial in Confidence) details the integration of emergency response and quarantine operations between the Gorgon Joint Venture and the Barrow Island Joint Venture participants. Chevron Australia Pty Ltd is the Operator of the Barrow Island

Joint Venture, which comprises Chevron Australia Pty Ltd, Chevron (TAPL) Pty Ltd, Santos Offshore Pty Ltd, and Mobil Australia Resources Company Pty Ltd.

1.4.2 Objectives

The overall aim of this QMS, as stated in Condition 10.3 of MS 800 and 769, and Condition 8.3 of EPBC Reference: 2003/1294 and 2008/4178, is that the Proponent shall not introduce or proliferate Non-indigenous Terrestrial Species (NIS) and Marine Pests to or within Barrow Island or the waters surrounding Barrow Island, as a consequence of the Proposal.

The specific objectives of the QMS, as stated in Condition 10.3, are to:

- prevent the introduction of Non-indigenous Terrestrial Species and Marine Pests
- detect Non-indigenous Terrestrial Species (including weed introduction and/or proliferation) and Marine Pests
- control and, unless otherwise determined by the Minister, eradicate detected Non-indigenous Terrestrial Species (including weeds) and Marine Pests
- mitigate adverse impacts of any control and eradication actions on indigenous species taken against detected Non-indigenous Terrestrial Species (including weeds) and Marine Pests.

1.4.3 Contents of this QMS

Table 1-2 lists the State and Commonwealth Condition requirements of this QMS and the sections in this QMS that fulfil them.

Table 1-2: Condition Requirements Addressed in this QMS

Approval Decision	Condition No.	Condition Requirement	Section in this QMS
Condition 10.4 of MS 800 and 769			
Condition 8.4 of EPBC 2003/1294 and EPBC 2008/4178			
MS 800 and 769	10.3	The overall aim of the QMS is that the Proponent [person taking the action] shall not [must not] introduce or [allow to] proliferate Non-indigenous Terrestrial Species and Marine Pests to or within Barrow Island or the water surrounding [Waters Surrounding]]Barrow island, as a consequence of the Proposal [action]. The specific objectives of the QMS are: <ol style="list-style-type: none"> i. To prevent the introduction of Non-indigenous Terrestrial Species and Marine Pests; ii. To detect Non-indigenous Terrestrial Species (including weed introduction and/or proliferation) and Marine Pests; iii. To control and, unless otherwise determined by the [Western Australia] Minister [on the advice of the QEP], eradicate detected Non-indigenous Terrestrial Species (including weeds) and Marine Pests; and iv. Mitigate adverse impacts of any control and eradication actions on indigenous species taken against detected Non-indigenous Terrestrial Species (including weeds) and Marine Pests. 	5.0
EPBC 2003/1294 and EPBC 2008/4178	8.3		

Approval Decision	Condition No.	Condition Requirement	Section in this QMS
MS 800 and 769	10.4	The QMS shall [must] address the following topics. These topics are specified in more detail in Schedule 4: i. Risk Assessment, Supply Chain Management, Vessel Management and Inspection; ii. Detection, Control and Eradication Program; iii. Mitigation (including a weed hygiene procedure) and any Control and Eradication Program; iv. Reporting and Recording; v. Integrating with whole of Island Quarantine Management; vi. Reviewing and further studies; vii. Weed Management procedures; and viii. Performance standards to be achieved by the QMS within the Terrestrial and Marine Quarantine Controlled Access Zones and Terrestrial and Marine Quarantine Limited Access Management Zones.	Refer to specific sections referenced under Schedule 4 requirements below.
EPBC 2003/1294 and EPBC 2008/4178	8.4		
Schedule 4 – Details of the Quarantine Management System (MS 800, EPBC 2003/1294, and EPBC 2008/4178)			
Schedule 4 (1): Risk Assessment, Supply Chain Management and Vessel Management and Inspection	i	A qualitative risk assessment of all Proposal-attributable introduction pathways for entry of terrestrial non-indigenous species to Barrow Island and entry of marine pests to the Waters Surrounding Barrow Island	4.0
	ii	Procedures and barriers to be applied at each potential introduction pathway that is directly attributable to the Proposal to ensure that the risk of introducing species is consistent with the objectives of the QMS	5.1, 5.1.7.1
	iii	Procedures and specification for the preparation, packing and shipment of all material destined for Barrow Island related to this Proposal	5.1, 5.1.7.1
	iv	Procedures and checklists for the inspection of all material destined for Barrow Island related to this Proposal	5.1, 5.1.7.1
	v	Procedures for ensuring that any item related to this Proposal which is not approved by an authorised inspector approved according to the procedures specified in the QMS is denied entry to Barrow Island unless remedial cleaning in the Quarantine Approved Premises have made such item/s quarantine compliant	5.1, 5.1.7.1
	vi	An accreditation program that all Proposal-related quarantine inspectors must complete before engaging in quarantine management activities related to this Proposal, in consultation with DEC, DAF and DoF (and AQIS) in the event of Direct Shipments to the Quarantine Approved Premises on Barrow Island from overseas ports	5.2.4.2
	vii	Procedures for when DEC officers require access to Proposal site.	5.2.5.4

Approval Decision	Condition No.	Condition Requirement	Section in this QMS
Schedule 4 (2): Detection, Control, Eradication and Mitigation Program	i	Identify and define the baseline location and extent of known, past and present, non-indigenous terrestrial species (including weeds) in the Terrestrial Quarantine Controlled Access Zone and the Terrestrial Quarantine Limited Access Management Zone	5.1.2
	ii	A detection program with the ability to detect at a statistical power of 0.8 or greater, or an alternative statistical power as determined by the Minister on advice of the QEP, detect the presence of non-indigenous species introduced to Barrow Island or proliferated within the terrestrial construction sites and marine pests in the waters surrounding the Proponent's marine facilities (as listed in Condition 14.3);	5.1.2
	iii	NIS (including weeds) Management Procedure(s) which sets the management protocol for the development and implementation of specific actions that mitigate the risk of NIS (including weeds) detected from establishing on Barrow Island	0
	iv	Species Action Plans for all (unless otherwise determined by the Minister) detected terrestrial non-indigenous species on Barrow Island and marine pests in the waters surrounding Barrow Island that controls and, unless otherwise determined by the Minister, eradicates any introduced or proliferated non-indigenous species on the advice of the QEP. These Species Action Plans to include: <ul style="list-style-type: none"> a. Contingency measures that can be immediately implemented to control and eradicate detected terrestrial non-indigenous species on Barrow Island and marine pests in the waters surrounding Barrow Island; and b. Management measures that can be implemented to mitigate impact caused by detected terrestrial non-indigenous species on Barrow Island and marine pests in the waters surrounding Barrow Island, and mitigate impact caused in the management of detected terrestrial non-indigenous species on Barrow Island and marine pests in the waters surrounding Barrow Island. 	5.1.6
	v	Emergency Response and Eradication Protocols to eliminate any Non-indigenous Species as determined by the Minister	5.1.7.1, 0
Schedule 4 (3): Reporting and Recording	i	Procedures that will be used to maintain electronic records, including a geographic information system (GIS), of breaches of Proposal QMS procedures; quarantine incidents which resulted in the introduction of terrestrial non-indigenous species to Barrow Island and marine pests to waters surrounding Barrow Island; and corrective actions taken to rectify those breaches, close out incidents, and address introductions that are verifiably attributable to the Proposal	5.2.5
	ii	Procedures to make information covered in Schedule 4 3.i accessible to DEC	5.2.5.4

Approval Decision	Condition No.	Condition Requirement	Section in this QMS
	iii	Provision for reporting detected terrestrial non-indigenous species on Barrow Island and marine pests in the waters surrounding the Proponent's marine infrastructure on Barrow Island to DEC	7.3
	iv	Provisions for ensuring that any information regarding quarantine management is available and provided to the DEC in a timely manner	5.2.5.4
Schedule 4 (4): Reviewing, audits and further studies	i	Protocols for regular audits of the Proponent's quarantine management measures in place under the QMS to determine their effectiveness and to determine if any corrective actions are required	7.3
	ii	The regular audits shall be conducted at six monthly intervals during the construction phase and at least biennially upon commissioning	7.3
	iii	The Proponent shall prepare and submit a report to DEC and the Conservation Commission detailing the results and outcomes of the audits referred to in 4i. and 4ii	7.3
	iv	The Proponent will undertake quarantine studies from time to time on advice of the QEP when audits and performance monitoring indicate the need to do so	5.2.5.4

Note: DEC is the former Western Australia Department of Conservation and Environment, which was split into the Department of Parks and Wildlife (Parks and Wildlife) and the Department of Environment Regulation after these Conditions were documented. DEC in the context of this QMS refers to Parks and Wildlife.

Any matter specified in this QMS is relevant to the Gorgon Gas Development or Jansz Feed Gas Pipeline only if that matter relates to the specific activities or facilities associated with that particular development.

The sections in this QMS listed in Table 1-2 to meet the conditions of EPBC Reference: 2003/1294 and 2008/4178 shall be read and interpreted as only requiring implementation under EPBC Reference: 2003/1294 and 2008/4178 for managing the impacts of the Gorgon Gas Development on, or protecting, Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) matters. The implementation of matters required only to meet the requirements of MS 800 and MS 769 are not the subject of the EPBC Reference: 2003/1294 and 2008/4178.

1.5 Quarantine Expert Panel

In accordance with Condition 9 of MS 800 and 769, Chevron Australia has established a Quarantine Expert Panel (QEP) to advise the WA Minister for Environment (the Minister) and Chevron Australia on matters relating to quarantine management for the Gorgon Gas Development, including the development and review of this QMS and relevant subsidiary documents.

1.6 Historical Revisions of the QMS

The QMS was first implemented in 2009 after construction activities commenced on Barrow Island. Development of the initial QMS built on the substantial advice received from government, scientific organisations, and independent technical experts during the preparation of environmental impact assessment documentation, from risk assessment workshops, and from numerous desktop and field survey programs.

The QMS was revised several times during the construction phase, in consultation with the QEP, to include additional facilities, improved and new risk mitigations and to capture lessons learnt during the implementation of the QMS.

This 2016 revision of the QMS reflects the knowledge gained during the construction phase, the five-year review of quarantine performance, and improved measures to detect, control, and manage NIS and Marine Pests.

2.0 Relevant Facilities and Activities

This QMS sets out requirements to prevent, detect, control and, unless otherwise determined by the Minister, eradicate the introduction of NIS and Marine Pests associated with construction and operational activities falling under MS 800, MS 769, and EPBC Reference: 2003/1294 and 2008/4178 environmental approvals.

2.1 Terrestrial Facilities

This QMS applies to the Terrestrial Facilities of the Gorgon Gas Development and the Terrestrial Facilities of the Jansz Feed Gas Pipeline, as shown in Figure 2-1. The Gorgon Gas Development Terrestrial Facilities are defined in Condition 6.3 of MS 800 and Condition 5.2 of EPBC Reference: 2003/1294 and 2008/4178 as the:

- Gas Treatment Plant
- Carbon Dioxide Injection system
- Associated Terrestrial Infrastructure forming part of the proposal
- Areas impacted for seismic data acquisition
- Onshore Feed Gas Pipeline System and terrestrial component of the shore crossing.

Terrestrial Facilities also include those defined in Schedule 1 of MS 965 (the Additional Support Area).

2.2 Marine Facilities

This QMS applies to the Marine Facilities of the Gorgon Gas Development and the Jansz Feed Gas Pipeline in State waters. The Gorgon Gas Development Marine Facilities are defined in Condition 17.2 of MS 800 and Condition 11.3 of EPBC Reference: 2003/1294 and 2008/4178 as the:

- Materials Offloading Facility (MOF)
- LNG Jetty
- Marine component of the Barge (WAPET) Landing upgrade
- Dredge Spoil Disposal Ground
- Offshore Feed Gas Pipeline System
- Offshore Domestic Gas Pipeline.

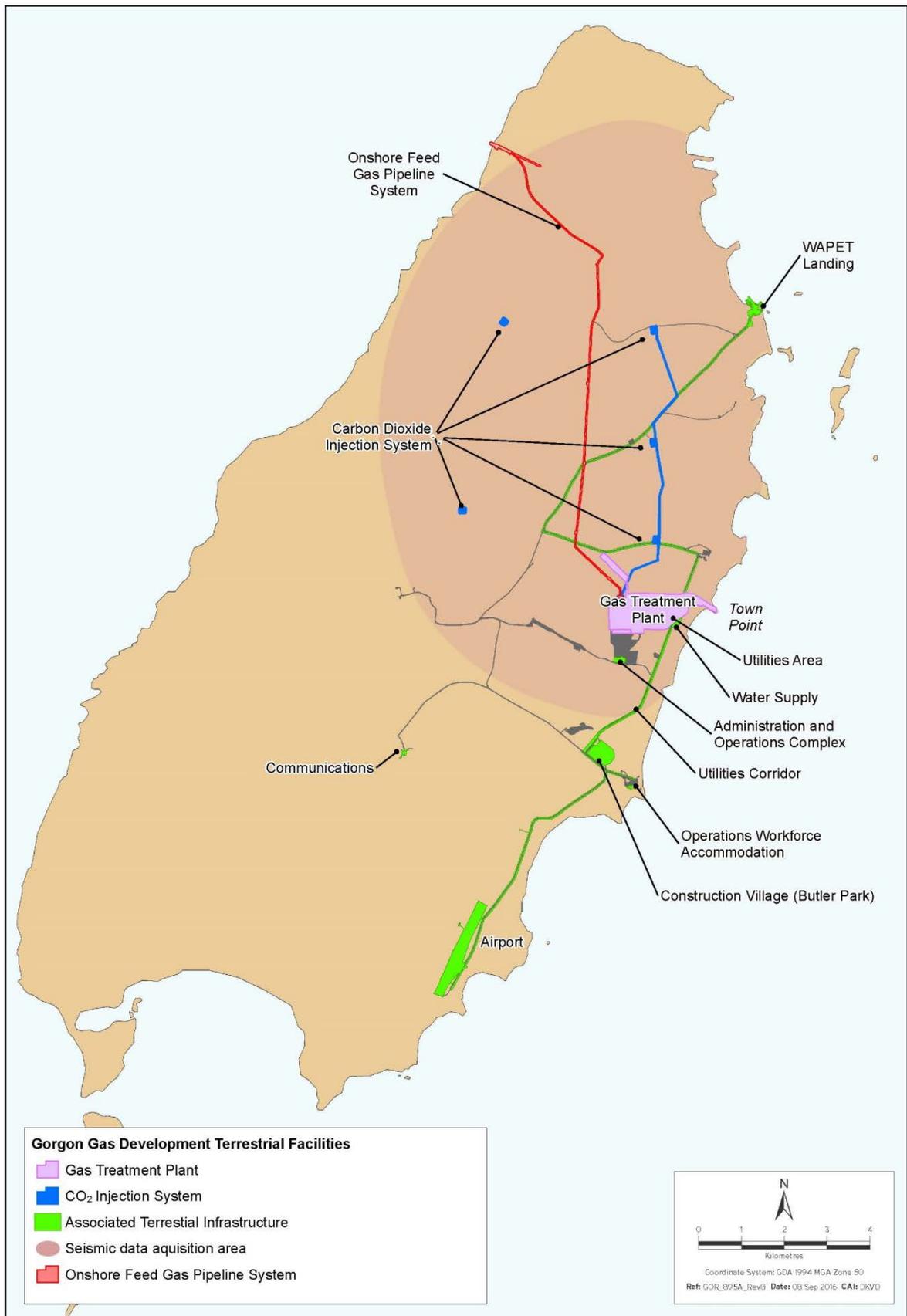


Figure 2-1: Gorgon Gas Development Terrestrial Facilities on Barrow Island

3.0 Barrow Island Quarantine Policy

Chevron's Australian Business Unit (ABU) Barrow Island Quarantine Policy (Ref. 13; Figure 3-1) commits the ABU to an integrated 'whole of island' quarantine management approach.



Figure 3-1: Barrow Island Quarantine Policy

4.0 Risk Assessment

Threats of introducing NIS and Marine Pests through the material, vessel, and people pathways were identified and analysed using a qualitative risk assessment methodology, as advised in EPA Bulletin 1101 (Ref. 14). Two specific outputs of the qualitative risk assessment are the Quarantine Hazard Analysis (QHAZ) and the Quarantine Risk Register.

4.1 Methodology

The risk assessment methodology is described in the how-to guide for conducting risk-based assessments of quarantine threats to Barrow Island (Ref. 15) and Chapter 12 of the Final Environmental Impact Statement/Environmental Review and Management Programme (EIS/ERMP) (Ref. 16).

Before conducting the QHAZ (Section 4.1.1) and developing the Barrow Island Quarantine Risk Register (Section 4.1.2), several preliminary analysis workshops were held with experts to identify the potential quarantine hazards associated with each step in the pathway and to assess the adequacy of conceptual quarantine barriers. The analysis workshops included an infection modes and effects analysis and a preliminary barrier analysis.

4.1.1 Quarantine Hazard Analysis

QHAZ is a comprehensive risk analysis of key steps in a pathway that assesses the adequacy of proposed quarantine barriers to prevent the introduction of NIS and Marine Pests.

The QHAZ workshops were held for each material, vessel, and people pathway and captured judgements from independent experts on the adequacy of the proposed quarantine barriers to prevent the introduction of NIS and Marine Pests to Barrow Island and its surrounding waters.

The risk analysis and recommendations of the QHAZ workshops for each pathway are recorded in the QHAZ records. The QHAZ records are the ultimate arbiter on the methods required at each quarantine barrier in the pathway to ensure that quarantine risks are acceptably low. If recommendations proved to be impracticable, then alternative barriers were identified in consultation with independent experts.

Following the QHAZ workshops, all proposed quarantine barriers were assessed in terms of the Feasibility Criteria and the Health, Environment, and Safety/Human Resources Review Criteria published in the Draft EIS/ERMP (Ref. 8; Table 12-4).

4.1.2 Quarantine Risk Register

The Barrow Island Quarantine Risk Register (Ref. 17) captures the quarantine risks identified from the QHAZ as well as any new risks identified since the QHAZ workshops were held.

The Quarantine Risk Register records the quarantine barriers to be applied at key steps in the material, vessel, and people pathways, and identifies the quarantine management measures to be implemented to reduce the risk of introducing NIS and Marine Pests to Barrow Island and surrounding waters.

The quarantine management measures are either prescribed management measures (Section 5.1) or systematic management measures (Section 5.1.7.1).

4.1.2.1 Amendments to the Quarantine Risk Register

The Quarantine Risk Register is amended if a new quarantine risk is identified, an existing quarantine residual risk level is changed, or a quarantine risk is better understood.

Changes in quarantine risk may occur if an existing quarantine barrier becomes ineffective, if an activity has not been adequately assessed (e.g. night loading, chemical resistance), or if a more effective quarantine barrier is identified.

5.0 Quarantine Management Measures

Quarantine barriers have been identified for each material, vessel, and people pathway to reduce the risk of introducing NIS and Marine Pests to Barrow Island and surrounding waters.

Quarantine management measures have been identified to ensure the effective implementation of the quarantine barriers identified during the risk assessment process.

Quarantine management measures are categorised into either prescribed quarantine management measures (see Section 5.1) or systematic quarantine management measures (see Section 5.1.7.1).

5.1 Prescribed Quarantine Management Measures

Prescribed quarantine management measures apply to specific work scopes and activities. Prescribed quarantine management measures direct a work scope or activity and are applied each time a work scope or activity is undertaken.

5.1.1 Measures to Prevent Introductions of NIS and Marine Pests

To help prevent the introduction of NIS and Marine Pests, a suite of documents detail the prescribed management measures for the 13 identified material, vessel, and people pathways. The document framework is summarised in Figure 5-1 and the documentation is listed in Appendix A.

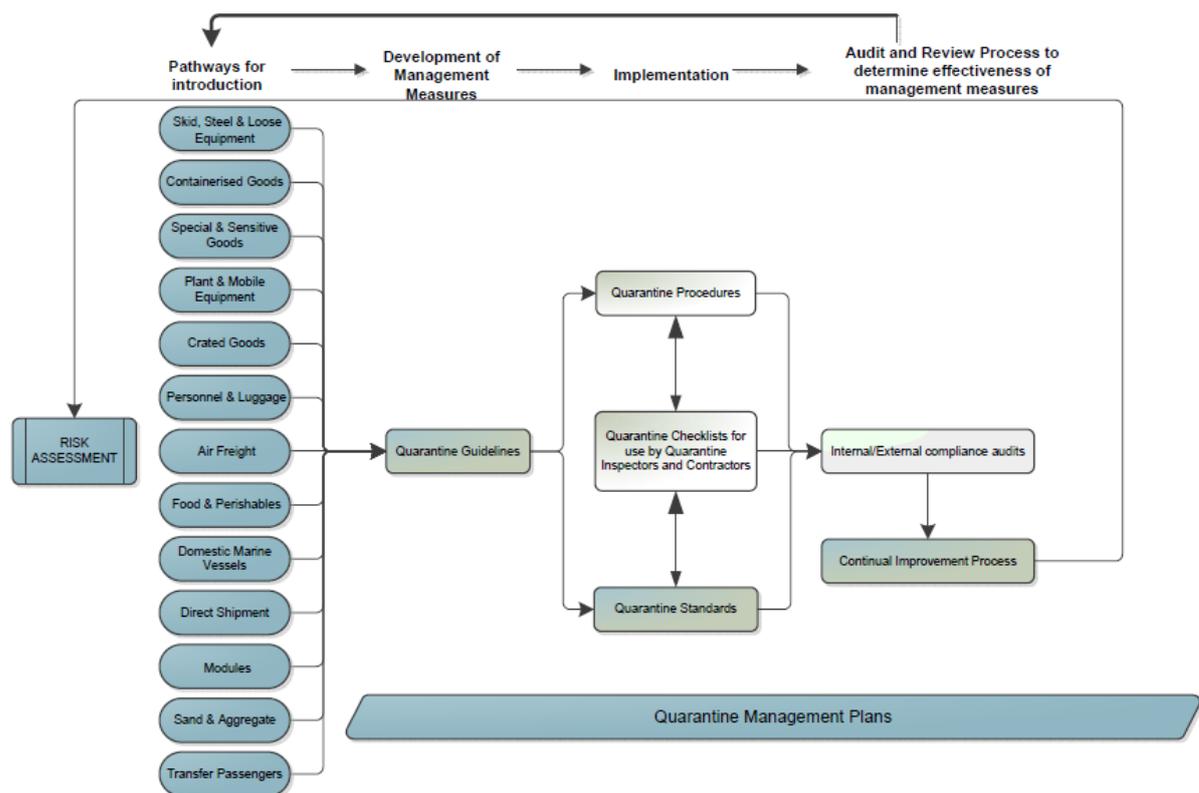


Figure 5-1: Quarantine Document Framework

5.1.1.1 Quarantine Guidelines

Quarantine guidelines inform quarantine procedures, quarantine standards, and management plans. Guidelines address the risks raised during the quarantine risk assessment process.

There are five categories of guidelines, which relate to the mobilisation of material and people, quarantine inspections, compliance activities, design of quarantine facilities, and operation of quarantine facilities.

Guidelines help segment the quarantine tasks to be undertaken. Although each person may interpret the guidelines differently, they are designed to achieve the same outcome, including, for example, an ability to:

- inspect to a level where the inspection ensures material is free from quarantine risk material. If quarantine risk material is detected the material is remediated.
- advise on housekeeping activities to ensure the NIS risk is managed
- advise on a vessel baiting and trapping program that is fit-for-purpose commensurate with the design and layout of the vessel.

Guidelines are internal Chevron Australia documents and are listed in Appendix A.

5.1.1.2 Quarantine Procedures

Quarantine procedures direct activities relating to the quarantine compliance of people travelling to Barrow Island and its surrounding waters; material mobilised for shipment to Barrow Island; and vessels and aircraft accessing Barrow Island and the waters surrounding Barrow Island. Quarantine procedures also direct the operation of facilities and other supporting requirements (e.g. training awareness and management plan frameworks).

Contractors will be issued quarantine procedures applicable to their specific scope of work that are to be incorporated into the Contractor Quarantine Management Plans (QMPs) and Marine Vessel QMPs (see Sections 5.2.1.1 and 5.2.1.2).

Quarantine procedures are listed in Appendix A.

5.1.1.3 Quarantine Standards

Quarantine standards comprise instructions on how to move through a series of steps; these individual steps may require specific activities to occur, which are described by quarantine standards. For example, quarantine standards may require a recommended chemical dosage to be applied e.g. during fumigation, describe an exact delineation of a design e.g. for a kitchen facility, or precisely describe a barrier such as seals or treatment methods to be used e.g. for a shipping container.

Quarantine standards consider the information included in the quarantine guidelines, industry standards, manufacturers' requirements, and expert advice, and are applied where practicable and safe to do so.

Contractors will be issued quarantine standards applicable to their specific scope of work that are to be incorporated into the Contractor QMPs and Marine Vessel QMPs (see Sections 5.2.1.1 and 5.2.1.2).

Quarantine standards are listed in Appendix A.

5.1.1.4 Quarantine Checklists

The quarantine procedures are supported by a suite of checklists that are used on a case-by-case basis to guide inspections, operations, training and upskilling of contractors, or future construction.

Quarantine checklists are listed in Appendix A. This list may be amended from time to time.

5.1.2 Measures to Detect NIS and Marine Pests

A quarantine detection program (comprising observation, surveillance, and monitoring activities) will be implemented to ensure early detection of NIS or Marine Pests so eradication programs can be implemented before significant environmental consequences occur.

To provide benchmarks for the quarantine detection program, baseline data continues to be collected for:

- invertebrates
- mammals and reptiles
- avifauna
- short-range endemics
- flora and vegetation
- weeds
- Marine Pests likely to establish in the waters surrounding Barrow Island.

5.1.2.1 Observation

Observations are primarily focused on the terrestrial and marine disturbance footprints but can also be conducted in the nature reserve.

Observations are structured or unstructured. Structured observations are where trained environmental and quarantine personnel conduct specific observation tasks to identify disturbances in the expected biodiversity pattern (e.g. a different pattern in the landscape; animal call recognition surveys in and around buildings; specimen collection near lights; surveys of filtration contents of sumps and drains; mussel shells in the sea strainer or on a mooring).

Unstructured observations are opportunistic observations by any personnel that are recorded during normal work hours or during free time (e.g. reporting an unusual growth form or episodic events such as seed dispersals and nuptial flights).

The Quarantine Awareness Strategy (Ref. 24) recognises the importance of personnel contributions to detecting NIS and Marine Pests.

Barrow Island personnel are made aware of the importance of unstructured observations via quarantine training and induction.

5.1.2.2 Surveillance

Surveillance is the periodic scientific measurement of ecosystem components using various physical devices and specialist visual/auditory observation methods. The primary purpose of surveillance is to determine the presence or absence of NIS and Marine Pests.

5.1.2.2.1 Terrestrial Non-Indigenous Species

NIS (including weeds) detected in the Terrestrial Quarantine Controlled Access Zone and the Terrestrial Quarantine Limited Access Management Zone prior to the commencement of construction activities are listed in Appendix B Table 2.

The NIS (including weeds) baseline for Barrow Island is defined in Chapter 12 of the Draft Environmental Impact Statement/Environmental Review and Management Programme for the Proposed Gorgon Gas Development (Ref. 8). Changes to the

location and extent of NIS is recognised via changes to hygiene zone locations required by the Weed Hygiene Procedure (Ref. 39).

The NIS surveillance program which can detect NIS at a statistical power of 0.8 was described in the publication: Quarantine Design of Detection Surveillance Systems for Non-indigenous Species of Terrestrial Invertebrates, Vertebrates and Plants on Barrow Island (Ref. 26). Following several iterations and improvements, the NIS surveillance program is now recorded as a model in these documents:

- Vertebrate NIS Surveillance model (Ref. 27)
- Invertebrate NIS Surveillance model (Ref. 28)
- Plant NIS Surveillance model (Ref. 29).

5.1.2.2.2 Marine Pests

The waters surrounding Barrow Island are part of the Indo–West Pacific Marine biome. The Gorgon Gas Development does not control all marine vessel movements in this open-access system.

The marine infrastructure associated with the Gorgon Gas Development is the focus for Marine Pest surveillance.

The Marine Pest surveillance program was based on the Australian Marine Pest Monitoring Guidelines: Version 2 (Ref. 30). The current Marine Pest surveillance program, developed in consultation with the WA Department of Fisheries (DoF), is based on best practice and is designed to meet an alternative achievable statistical power to detect the presence of Marine Pests. This program is recorded in Design of Detection Surveillance Systems (Ref. 50) for Marine Pests in the waters surrounding Barrow Island.

Towards the end of the construction phase, molecular-sequenced data of targeted Marine Pests were collected to detect and identify Marine Pests. This approach to detection and identification of Marine Pests is ongoing during Operations and is consistent with the guidelines recorded in the Australian Marine Pest Monitoring Guidelines: Version 2 (Ref. 30). This approach to surveillance also captures broader marine biodiversity and the movement of marine species over time in targeted locations.

5.1.2.2.3 Exotic Diseases

Exotic animal, plant, and marine diseases are specific quarantine risks to Barrow Island. Independent subject matter experts (Ref. 8) have advised that the implementation of the quarantine management measures result in a low risk of diseases presenting a threat on Barrow Island or in the waters surrounding Barrow Island.

The Guideline for Generic Diseases Management Protocol (Ref. 31) will be implemented if an exotic disease is detected on Barrow Island or in the waters surrounding Barrow Island.

5.1.2.3 Monitoring

Changes in ecosystem function, structure, and composition may occur because NIS or Marine Pests are present, and/or can act as indicators of the presence of NIS and Marine Pests that may not be readily detected through the observation and surveillance.

Monitoring to detect long-term changes in ecosystem function, structure, and composition occurs via existing environmental monitoring programs e.g. monitoring programs implemented under the Terrestrial and Subterranean Environment Monitoring Program (Ref. 51) or via dedicated quarantine monitoring programs (where gaps exist).

If a change in ecosystem function, structure, and composition is observed and is likely attributed to the presence of NIS or Marine Pests, additional monitoring programs may be developed, guided by advice from the QEP and taking into account:

- Species Action Plans (SAPs) (see Section 5.1.6)
- EPA Guidance Statement No. 51, Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia (Ref. 32) where SAPs do not exist
- EPA Guidance Statement No. 56, Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia (Ref. 33) where SAPs do not exist
- Australian Marine Pest Monitoring Guidelines: Version 2 (Ref. 30).

5.1.3 Measures to Control and Eradicate NIS and Marine Pests

A specific objective of the QMS is to control and, unless otherwise determined by the Minister, eradicate detected NIS and Marine Pests associated with Gorgon Gas Development activities.

A hierarchy of actions are implemented following the detection of NIS or Marine Pests or a suspicion that NIS or Marine Pests are present on Barrow Island or in the waters surrounding Barrow Island.

The hierarchy of response actions are defined in the Quarantine Response Guideline for Barrow Island (Ref. 34) and include:

- initial first response (see Section 5.1.3.1)
- incursion response (if first response activities are not successful) (See Section 5.1.3.2)
- implementation of an NIS or Marine Pest management program (see Section 5.1.4) where first response (where implemented) and incursion response activities are not successful and the NIS or Marine Pest is considered introduced to Barrow Island.

The Emergency Response Plan (See Section 5.1.7.1) may be implemented to support first response and incursion response activities.

5.1.3.1 First Response

First response activities will be implemented if there is an uncontrolled loss of custody of a suspected NIS or Marine Pest or initial observation of a suspected NIS or Marine Pest (e.g. uncontained highly mobile species).

First response activities do not require responsibility to be attributed to the Gorgon Gas Development before they are implemented.

First response activities are an immediate response undertaken to mobilise, and contain or eliminate a suspected NIS or Marine Pest.

A series of first response guides (captured as an appendix in the Quarantine Response Guideline for Barrow Island (Ref. 34) have been prepared for higher risk operational areas to assist decision-making if a suspect NIS or Marine Pest is found on Barrow Island or in the waters surrounding Barrow Island. This guideline focuses on broad terrestrial taxa and recognised Marine Pests and lists the typical organism per taxa and its habitat, and clarifies what response equipment is to be used and reporting requirements.

SAPs (see Section 5.1.6) may guide first response activities.

5.1.3.2 Incursion Response

A species-specific incursion response plan will be developed and implemented if first response activities (if initiated) fail or if a confirmed NIS or Marine Pest is detected on Barrow Island or in the waters surrounding Barrow Island.

The Quarantine Response Guideline for Barrow Island (Ref. 34) and relevant SAP (where it exists) support the development of the species-specific incursion response plan.

The QEP and relevant government agencies (e.g. Parks and Wildlife, DoF) will be consulted during the development and implementation of the species-specific incursion response plan.

Depending on the potential consequence of the NIS or Marine Pest, the incursion response activities may be implemented in conjunction with the ABU Emergency Response Plan (Ref. 36; see Section 5.1.7.1). Significant events such as Marine Pest spawning, invasion of rats, or the presence of multiple nests of non-indigenous Hymenoptera are potentially high-consequence events that may trigger implementation of the ABU Emergency Response Plan.

SAPs (see Section 5.1.6) may guide incursion response activities, first response and/or incursion response. The Chevron Australia Emergency Management Team, as described in the ERP, is responsible for managing the response operations, directing tactical response, and supporting operations.

5.1.4 Management of NIS and Marine Pests

An annual NIS or Marine Pest Management Program will be developed and implemented if an NIS or Marine Pest survives first response (where implemented) and incursion response to control and, unless otherwise determined by the Minister, eradicate NIS or Marine Pests.

The QEP and relevant government agencies (e.g. Parks and Wildlife, DoF) will be consulted during the development and implementation of the NIS or Marine Pest Management Program.

The NIS Management Procedure (Ref. 38) guides the development of the NIS or Marine Pest Management Program, which includes a risk assessment, decision-making model, resourcing, responsibilities, performance monitoring, surveillance and progress reporting, auditing, and review.

5.1.4.1 Weeds

First response or incursion response (see Sections 5.1.3.1 and 5.1.3.2) will be implemented following any new discovery of weed species introduced or proliferated as a result of activities related to the Gorgon Gas Development. The objective of the response activities is to contain, control, and eradicate the introduction or proliferation.

If a detected weed species, attributed to the Gorgon Gas Development, survives the first response (where implemented) and the incursion response and the weed species is considered to be a high risk to the biodiversity on Barrow Island (e.g. Buffel Grass), a weed management program (guided by the NIS Management Procedure (Ref. 38) will be developed and implemented.

Determination of high risk to the biodiversity of Barrow Island may be based on the advice of subject matter experts or literature.

The weed management program captures:

- the weeds and weed locations attributable to the Gorgon Gas Development that are targeted for the period

- control schedules for the specific species incorporating the appropriate measures contained in the relevant SAP (where it exists)
- responsibilities for the program.

The BICC is responsible for planning and coordinating weed management between the Joint Venturers on Barrow Island, as per the requirements of the *Barrow Island Act 2003* (WA).

5.1.5 Hygiene Measures

If a high-risk NIS or Marine Pest has established on Barrow Island or in the waters surrounding Barrow Island, hygiene measures will be implemented to manage Gorgon Gas Development activities undertaken in the affected areas to minimise the spread of NIS or Marine Pest.

5.1.5.1 Weed Hygiene

If Gorgon Gas Development activities occur in an area where high-risk weeds or seed banks are known to occur, weed hygiene mitigation measures relevant to the work scope, will be implemented to prevent the proliferation of such weeds.

A weed hygiene procedure (Ref. 39) guides activities within known high-risk weed areas to prevent the proliferation of such weeds. Requirements of this procedure (or other relevant documentation) are communicated to contractors and the applicable workforce.

5.1.6 Species Action Plans

SAPs are developed in consultation with the QEP, and provide guidance on:

- contingency measures e.g. baiting and trapping, that can be implemented as part of first response, incursion response, and the NIS and Marine Pest Management Program.
- management measures e.g. fauna relocation to mitigate impact caused by NIS and Marine Pests
- management measures e.g. trap design to mitigate impact caused in the management of NIS and Marine Pests.

There are four categories of SAPs:

- exemplar species representing broad taxa (requiring similar responses)
- NIS present before construction commenced and that are not covered by the exemplar SAPs
- established NIS and Marine Pests attributable to the Gorgon Gas Development (where an existing exemplar SAP does not exist)
- identified high-risk species, unless covered by an exemplar SAP, that are located at mainland and overseas locations where cargo destined for Barrow Island mobilises from.

Existing SAPs are listed in Appendix B.

5.1.6.1 Quarantine Species Action Plan Framework

A Quarantine Species Action Plan Framework (Ref. 40) provides a template for the preparation of Quarantine SAPs. Each SAP includes:

- details on the biological characteristics and ecological requirements of the targeted NIS or Marine Pest

- details on the most appropriate control or eradication strategy for the NIS or Marine Pest
- diagnostic resources required for species identification
- details on areas where the NIS or Marine Pest can potentially invade
- reviews of past eradication or control attempts and response caches
- training requirements on how to effectively implement the eradication or control activity.

The framework also contains mitigation-related guidance for impacts caused by:

- the presence of NIS on Barrow Island or Marine Pests in the waters surrounding Barrow Island
- control or eradication actions.

5.1.7 Mitigating Impacts Caused by NIS and Marine Pests and Eradication of NIS and Marine Pests

Rehabilitation associated with the introduction of an NIS or Marine Pest or due to impacts caused during response, control, and/or eradication will be undertaken in accordance with the Gorgon Gas Development Post-Construction Rehabilitation Plan (Ref. 37) and in consultation with the relevant government agencies (e.g. Parks and Wildlife, DoF).

5.1.7.1 Emergency Management

The Barrow Island Emergency Response Plan (ERP) (Ref. 36) describes the capability to provide timely and effective response to emergency situations for the Gorgon Gas Development and Barrow Island as a whole. The ERP may be implemented for complex quarantine incursions that require a timely and effectively resource.

5.2 Systematic Quarantine Management Measures

Systematic quarantine management measures ensure effective implementation of the quarantine barriers identified during the risk assessment process across all relevant work scopes and activities.

5.2.1 Contractor Quarantine Management

Contractor quarantine management establishes clear accountabilities, ensures active engagement of contractors, and provides a consistent quarantine management program that meets the requirements of this QMS.

QMS requirements will be communicated to all contractors via the ABU Standard Quarantine Exhibit (Ref. 18).

Operational control of contractors is exercised via QMPs (see Section 5.2.1.1).

Ongoing communication to contractors occurs via:

- Quarantine Advice Reports (see Section 5.2.2.1)
- Quarantine Concession Request (see Section 5.2.2.2)
- Quarantine Instructions (see Section 5.2.2.3)
- Quarantine Non-Conformances (see Section 5.2.2.4)
- Quarantine Management of Change (see Section 5.2.2.5).

5.2.1.1 Contractor Quarantine Management Plans

Contractors will develop and implement a Chevron Australia Quarantine Manager approved QMP if Chevron Australia assesses the contractor's scope of work as requiring specific quarantine controls (e.g. inspection, treatment, storage).

QMPs detail the quarantine management measures, as identified during initial contractor engagement, to be implemented by the contractor.

QMPs also document associated training requirements, roles and responsibilities, compliance management, recordkeeping, and reporting.

The Quarantine Management Plan Framework (Ref. 22) guides the development of Contractor QMPs.

5.2.1.2 Marine Vessel Quarantine Management Plans

Contractors will develop and implement a Chevron Australia Quarantine Manager approved vessel QMP incorporating specific quarantine controls (e.g. wetside and topside compliance measures) if Chevron Australia assesses the contractor's scope of work as requiring a vessel QMP to be in place before authorisation to mobilise is granted.

Vessel QMPs detail the quarantine management measures, as identified during initial contractor engagement, to be implemented by the contractor.

Vessel QMPs also document associated training requirements, roles and responsibilities, compliance management, recordkeeping, and reporting.

The Quarantine Management Plan Framework for Marine Vessels (Ref. 23) guides the development of vessel QMPs. The Barrow Island Quarantine Barrow Island Marine Vessels Procedure (Ref. 41) documents the mobilisation and ongoing management of marine vessels (excluding trading vessels) accessing Barrow Island.

5.2.2 Communication of Quarantine Requirements

5.2.2.1 Quarantine Advice

Quarantine Advice Reports (Ref. 19) are issued to contractors during initial contractor engagement to instruct or clarify quarantine requirements specific to a scope of work, or if the quarantine risk has changed since the initial advice.

Action items raised in Quarantine Advice Reports are to be closed out by the contractor in accordance with the timeframe specified in the Quarantine Advice Reports and to the satisfaction of the Chevron Australia Quarantine Manager.

5.2.2.2 Quarantine Concessions and Contingencies

A quarantine concession may be granted to contractors by the Chevron Australia Quarantine Manager if there are health, safety, corrosion, integrity, and/or practicality considerations regarding implementation of a barrier or if it can be demonstrated that the proposed alternative quarantine barrier(s) (e.g. additional inspection requirement) and/or quarantine management measure can mitigate the quarantine risk to the same residual risk level as the initial quarantine barrier.

If a concession to a quarantine barrier and/or management measure is approved by the Chevron Australia Quarantine Manager, a Concession Request (Ref. 20) will be granted for a defined period or activity.

Quarantine contingencies may be approved by the Chevron Australia Quarantine Manager to accommodate abnormal or temporary conditions. These conditions include, but are not limited to, human health and safety, pollution response, extreme weather (e.g. cyclone), and critical equipment breakdown and if it can be demonstrated that the

alternative quarantine barrier and/or quarantine management measure can mitigate the quarantine risk to the same residual risk level as the initial quarantine barrier.

5.2.2.3 Quarantine Instructions

Quarantine instructions are issued to contractors by the Chevron Australia Quarantine Manager if clarifications and/or additional requirements are required due to changes relating quarantine risk, schedule, or other operational considerations.

5.2.2.4 Quarantine Non-Conformances

Quarantine non-conformances are issued to contractors that have failed to implement quarantine requirements applicable to their scope of work.

5.2.2.5 Management of Change

Quarantine management of change is documented in the Quarantine Management of Change Form (Ref. 21).

The management of change process applies to permanent, temporary, and emergency situations that affect the normal, established operating state of quarantine facilities and quarantine operations.

Events that trigger quarantine management of change include, but are not limited to:

- proposed changes to the QMS (e.g. annual review process, ongoing adaptive management, mitigation of newly identified or realised risks)
- proposed changes to the implementation of the QMS (e.g. changes to the contracting strategy, organisational changes, changes in roles and responsibilities, reporting changes)
- proposed changes to the QMS work processes (e.g. location where critical tasks [tagging, fumigation, inspections] are completed)
- proposed changes to infrastructure or facilities (e.g. supply chain facilities that depart from original design and operating commitments)
- proposed changes to surveillance and monitoring methodologies for NIS and Marine Pests on Barrow Island and in the waters surrounding marine infrastructure (e.g. changes to the marine and terrestrial surveillance guidelines and models listed in this document)
- periodic changes to government requirements (e.g. acts of parliament, regulations, government policy).

Note: Any change is subject to the requirements of Condition 36.2 of MS 800, Condition 21 of MS 769, Condition 2.3 of MS 965, and Conditions 25 and 26 of EPBC Reference: 2003/1294 and 2008/4178.

5.2.3 Quarantine Zones

5.2.3.1 Marine Quarantine Zones

Marine quarantine zones specify quarantine requirements for marine vessels entering the waters surrounding Barrow Island.

Marine quarantine zones are defined in MS 800 and 769, and EPBC Reference: 2003/1294 and 2008/4178

As marine vessels approach Barrow Island and the marine quarantine zones, they are subject to progressively more stringent quarantine measures to reduce the risk of introducing NIS and Marine Pests to Barrow Island and surrounding waters to acceptably low levels.

5.2.3.2 Terrestrial Quarantine Zones

Terrestrial quarantine zones specify quarantine access requirements for specific areas on Barrow Island.

Terrestrial quarantine zones are defined in MS 800 and 769, and EPBC Reference: 2003/1294 and 2008/4178.

5.2.4 Competency Development

A systematic and structured quarantine competency framework ensures individual members of the workforce have the competency to achieve the objectives of this QMS and the overall organisational quarantine capability.

The quarantine competency framework is a multi-faceted approach that uses inductions, training, and awareness to build the quarantine culture, knowledge, and skills in the workforce.

Chevron Australia has prepared the ABU Competency Development Process (Ref. 43) to identify and assess the required competencies for relevant Chevron Australia personnel.

5.2.4.1 Induction

All personnel visiting Barrow Island complete a quarantine induction prior to arrival on Barrow Island. The quarantine induction includes detail on how personnel should prepare for travel to Barrow Island (e.g. how to clean footwear and personnel items). The Chevron Australia Quarantine Manager approves the quarantine content in this induction.

5.2.4.2 Training

The Barrow Island Quarantine Standard for Training and Accreditation (Ref. 48) defines the quarantine training modules, assessment, and validation requirements for the Gorgon Gas Development workforce (Chevron Australia personnel and contractors) who are responsible for significant quarantine aspects relevant to their work scope (e.g. shore base, distribution centre, fieldwork) and/or specific activities they are required to undertake (e.g. first response, incursion response, weed hygiene).

Contractor quarantine training requirements are detailed in the contractor's QMP (see Section 5.2.1.1). Contractors are required to complete applicable quarantine training within three months of commencing employment. On completion of training, Chevron Australia may assess contractors on their understanding of the quarantine training material.

Ongoing and refresher training for the workforce is done using the Quarantine Hero Training and Assessment Simulation Tool (airport, material, and food), toolboxes, fact sheets, and other relevant material (e.g. outcomes from incident investigations, quarantine performance data). The frequency of ongoing and refresher training is triggered by changes in quarantine risk profile, performance, or organisation changes (e.g. responsibilities of the position, personnel turnover and time in position).

An accreditation program for quarantine inspectors will be implemented as per the Barrow Island Quarantine Standard for Training and Accreditation (Ref. 48).

5.2.4.3 Awareness

A goal of the Quarantine Policy (see Section 3.0) is 'to develop and maintain a quarantine culture throughout the project'.

The Quarantine Awareness Strategy (Ref. 24) develops a strong quarantine culture among the Gorgon Gas Development workforce. This strategy includes newsletters, toolboxes, posters, web-based information, and in-flight quarantine presentations (e.g.

Quarantine Snapshots) that help create a greater understanding of quarantine management.

To develop a quarantine culture for the Gorgon Gas Development, an approach based on 'Mentors, Champions, and Legends' has been developed and implemented:

- Mentors: Those involved in quarantine-styled Behavioural Based Safety Processes tools such as Incident Free Operations and 'Observing Safety Protects Resources, Environment and You' (OSPREY).
- Champions: Those who have done something outstanding regarding quarantine, or who have gone above standard practice for a positive quarantine outcome.
- Legends: Those involved in Barrow Island quarantine for many years and recognised by Chevron Australia as custodians of the conservation values of Barrow Island.

5.2.5 Quarantine Information Management

5.2.5.1 Control of Documents

Chevron Australia has corporate tools for managing documentation, data, and company records related to the Gorgon Gas Development. This suite of tools is also used to manage QMS-generated documentation, including requirements for storing, tracking, retrieving, updating, and maintaining such documentation.

The systems within the suite include:

- a document management system (e.g. DMS, SharePoint)
- an information management system (e.g. Safeguard, IMPACT)
- a learning management system (e.g. LMS)
- a geographic information system (e.g. GeoHouse).

All documentation relating to intercepts, procedural deviations, incidents, close-out reports, and other associated records are stored in the systems listed above. These systems may change from time to time in accordance with Chevron Australia's information management requirements.

5.2.5.2 Control of Records

Quarantine-critical records are retained consistent with the requirements of the ABU Record Retention Schedule (Ref. 25).

These records may include, but are not limited to:

- inspection and treatment records
- quarantine investigations and corrective actions taken in response to incidents, intercepts, and procedural deviations
- quarantine surveillance and monitoring records
- quarantine audits and continuous improvements
- maintenance records for critical equipment, including calibration records
- risk assessments relating to facilities and vessels
- external quarantine communication records
- management of change records.

5.2.5.3 Request for Information

Documentation referenced in the QMS and information relating to the performance of the QMS (including surveillance and eradication/control reports) will be made available

to the QEP and external stakeholders with regulatory responsibility in response to a request for information.

5.2.5.4 Parks and Wildlife access to Gorgon Gas Development sites

Arrangements are in place for Parks and Wildlife officers to access Gorgon Gas Development sites to fulfil their quarantine role (as defined by Ministerial Conditions).

5.2.6 Continuous Improvement

Continuous improvement is a process where audit outcomes, performance monitoring results, corrective actions, workplace assessments, and lessons learnt are incorporated into the quarantine management measures for the Gorgon Gas Development.

Actions to be implemented (if this leads to significant change to implementation of quarantine management measures) are detailed in the Quarantine Management of Change Form (Ref. 21).

5.2.6.1 Additional Studies to Improve the Performance of the QMS

Chevron Australia will undertake quarantine studies from time to time (on advice of the QEP) if audits and performance monitoring indicate the need to do so.

The QEP must formalise requests for studies, record it in terms of the standard procedures of the panel, and communicate it in writing to Chevron Australia.

Chevron Australia will consider all QEP requests to commission a quarantine study and reply to the QEP within 30 working days of the receipt of such requests advising of the feasibility of conducting such a study, or if appropriate, recommend alternatives.

6.0 Performance Objectives and Standards

6.1 Objectives

Chevron Australia is committed to conducting activities associated with the Gorgon Gas Development in an environmentally responsible manner, and aims to implement best-practice environmental management as part of a program of continual improvement. To meet this commitment, objectives (Table 6-1) have been defined that relate to the management of the identified quarantine risks for the Gorgon Gas Development. These objectives are consistent with those in Condition 10.3 of MS 800 and 769, and Condition 8.3 of EPBC Reference: 2003/1294 and 2008/4178, and where necessary, additional, more specific objectives have been developed.

6.2 Performance Standards

Performance standards are the measures Chevron Australia uses to assess whether or not it is meeting its objectives. For each objective and element of each objective, Chevron Australia has described a matter ('description') that is measured, and a quantitative target or, where there is no practicable quantitative target, a qualitative target, which is to be measured against when assessing whether the objective has been met. The targets in Table 6-1 were developed for assessing performance, not compliance. Failure to meet the targets does not represent a breach of this QMS; rather, it indicates that a performance objective may not have been met and there may be a need for management action or review of the environmental performance objectives and standards.

Table 6-1 details the performance standards specific to this QMS, including performance standards to be achieved within the Terrestrial and Marine Quarantine Controlled Access Zones and Terrestrial and Marine Quarantine Limited Access Management Zones, as required by Condition 10.4(viii) of MS 800 and 769, and Condition 8.4(viii) of EPBC Reference: 2003/1294 and 2008/4178.

6.3 Relevant Documentation

Table 6-1 lists the relevant documentation that contains information about whether the performance standards were met.

Table 6-1: Objectives and Performance Standards

Aim: The overall aim of the QMS is that Chevron Australia shall not introduce or proliferate Non-indigenous Terrestrial Species and Marine Pests to or within Barrow Island or the waters surrounding Barrow Island, as a consequence of the Gorgon Gas Development			
Objectives	Performance Standards		Evidence / Relevant Documentation
	Task Description	Target	
1. Prevention: To prevent the introduction of Non-indigenous Terrestrial Species and Marine Pests	1. Review the adequacy of Proposal-attributable pathways and risk assessments	At intervals nominated by the Quarantine Manager based on performance of QMS, and at least annually	<ul style="list-style-type: none"> Chevron Australia's review of the Quarantine Intercept Register and incident investigation reports QEP record of meeting advising on Chevron Australia's review of QMS performance Documentation review e.g. audit reports when requested
	2. Apply procedures and associated assessed barriers to all Proposal-attributable pathways to reduce the risk of the introduction of NIS and Marine Pests	All procedures were implemented	<ul style="list-style-type: none"> Audit reports covering all Gorgon Gas Development related material pathways Deviation requests that record any exemptions granted, conditional on the risk being mitigated or remaining acceptably low
	3. Validate procedures and associated assessed barriers to demonstrate their effectiveness in preventing the introduction of NIS and Marine Pests	100% of procedures are tested	Audit reports for: <ul style="list-style-type: none"> mobilisation procedures facility management procedures inspection methods treatment methods incident investigations non-compliance investigations
	4. Implement procedures and plans to prevent the proliferation of NIS or Marine Pests to or within Barrow Island or the waters surrounding Barrow Island	No proliferation of introduced NIS or Marine Pests within the Terrestrial and Marine Quarantine Controlled Access Zones and Terrestrial and Marine Quarantine Limited Access Management Zones	<ul style="list-style-type: none"> Audit reports on the progress of implementing SAPs in the context of preventing proliferation

Aim: The overall aim of the QMS is that Chevron Australia shall not introduce or proliferate Non-indigenous Terrestrial Species and Marine Pests to or within Barrow Island or the waters surrounding Barrow Island, as a consequence of the Gorgon Gas Development			
Objectives	Performance Standards		Evidence / Relevant Documentation
	Task Description	Target	
2. Detection: To detect Non-indigenous Terrestrial Species (including weed introduction and/or proliferation) and Marine Pests	1. Review the adequacy of the detection program designed to detect the presence of NIS and Marine Pests (to a statistical power of 0.8 or greater, or an alternative statistical power as determined by the WA Minister for Environment)	Annual review by subject matter experts and end users of all aspects of the integrated detection program to determine adequacy	<ul style="list-style-type: none"> Chevron Australia detection program audit report QEP record of meeting advising on QMS performance Peer review report
	2. Implement a detection program based on risk assessment relating to: <ul style="list-style-type: none"> risk of introduction habitat suitability establishment potential 	Achieve a statistical power of 0.8 for the detection of NIS on Barrow Island and implement the Marine Pest surveillance program around marine infrastructure associated with the Gorgon Gas Development to achieve the maximum achievable statistical power.	<ul style="list-style-type: none"> Audit reports Baseline data report Incident reports
	3. Test the capability of the detection program to detect the presence of new NIS and Marine Pests early enough to consider eradication, i.e.: <ul style="list-style-type: none"> accurate and consistent detection of existing NIS and Marine Pests early detection of unknown NIS and Marine Pests (based on organism's biology) 	<ul style="list-style-type: none"> 100% detection of known NIS and Marine Pests on Barrow Island under test conditions 100% of Authorised Quarantine Inspectors meet the Quarantine Hero simulation training requirement 	<ul style="list-style-type: none"> Training records

Aim: The overall aim of the QMS is that Chevron Australia shall not introduce or proliferate Non-indigenous Terrestrial Species and Marine Pests to or within Barrow Island or the waters surrounding Barrow Island, as a consequence of the Gorgon Gas Development			
Objectives	Performance Standards		Evidence / Relevant Documentation
	Task Description	Target	
<p>3. Eradication, Control, and Mitigation: To control and, unless otherwise determined by the WA Minister for Environment, eradicate detected Non-indigenous Terrestrial Species (including weeds) and Marine Pests; and mitigate adverse impacts of any control and eradication actions on indigenous species taken against detected Non-indigenous Terrestrial Species (including weeds) and Marine Pests</p>	<p>1. Review the adequacy of the emergency response and eradication protocols as applicable:</p> <ul style="list-style-type: none"> • ERP • incursion response plan • SAP 	<p>Annual review</p>	<p>Audit the implementation and effectiveness of:</p> <ul style="list-style-type: none"> • Quarantine Incursion Response Plan • eradication programs • control programs • mitigation measures as recorded in the annual NIS and Marine Pest management program
	<p>2. Develop plans and procedures ready for implementation as a part of any control and eradication program. These include the NIS Management Procedure (including weeds) and SAPs</p>	<ul style="list-style-type: none"> • Develop SAPs for detected NIS and Marine Pests already established on Barrow Island and in its surrounding waters, unless otherwise determined by the WA Minister for Environment • Develop an NIS and Marine Pest management program consistent with the NIS Management Procedure before construction activities commence and at the commencement of each year thereafter • NIS Management Procedure and resultant programs implemented • SAPs exercised as part of an annual readiness program 	<ul style="list-style-type: none"> • NIS First Response Guide • Quarantine Incursion Response Plan • NIS Management Procedure • NIS and Marine Pest management program • SAPs as approved by the WA Minister for Environment • annual readiness exercise program • audit report
	<p>3. Progress towards the eradication of detected NIS and Marine Pests (if required) without significant impact on the environment</p>	<ul style="list-style-type: none"> • No proliferation of existing NIS or Marine Pests to or within Barrow Island or in the waters surrounding Barrow Island as a consequence of the Proposal • Reduction in the distribution and abundance of detected NIS and Marine Pests towards a long-term target of the eradication of the species, unless otherwise determined by the WA Minister for Environment 	<ul style="list-style-type: none"> • Annual progress report

7.0 Performance Monitoring, Reporting, and Review

7.1 Monitoring Quarantine Performance

Quarantine events will be recorded and monitored to track performance of the QMS.

Quarantine events can be an incident, intercept, or a non-event (meaning non-viable risk material [e.g. dead, native to Barrow Island, soil with no viable seeds or a vagrant]). Refer to Section 8.0 for further definition.

Procedural deviations (see Section 8.0) are recorded and monitored to track compliance with the requirements of the QMS.

7.1.1.1 Quarantine Incident

Quarantine incidents are classified as a Level 1, 2, or 3 quarantine incident (see Section 8.0), are recorded in a Chevron Australia information management system (e.g. Safeguard, IMPACT), and are monitored to track performance of the QMS.

The classification of a quarantine incident is based on the risk the NIS or Marine Pest poses to the biodiversity of Barrow Island or the waters surrounding Barrow Island. In this assessment, factors such as mobility, likelihood of survival, and known invasiveness in environments similar to Barrow Island or the surrounding waters are considered.

Quarantine incidents are investigated in accordance with the ABU Incident Investigation and Reporting Process (Ref. 42) and corrective actions identified and implemented to prevent a recurrence of the incident.

7.1.1.2 Quarantine Intercepts

Quarantine intercepts are recorded in a Chevron Australia information management system and are monitored to track performance of the QMS.

Quarantine intercepts may be investigated depending on the seriousness of the intercept (e.g. known invasive taxa on vessels or cargo such as a rodent would be investigated) to identify the root cause(s) and corrective actions to be implemented to prevent a recurrence of the intercept.

7.1.1.3 Quarantine Procedural Deviation

Quarantine procedural deviations are recorded in a Chevron Australia information management system and are monitored to track performance of the QMS.

Quarantine procedural deviations are classified as Level 1 or 2 procedural deviation (Section 8.0). The classification of a quarantine procedural deviation is based on the potential impact of the deviation to the biodiversity of Barrow Island and its surrounding waters.

Level 2 quarantine procedural deviations may be investigated to identify the root cause(s) and corrective actions may be implemented to prevent a recurrence of the procedural deviation.

7.2 Incident Reporting

Table 7-1 lists the incident reporting requirements, including timing, specific to this QMS.

Table 7-1: Incident Reporting Requirements

Incident	Report to	Timing
Material or Serious Environmental Harm outside the Terrestrial or Marine Disturbance Footprints (attributable to the Gorgon Gas Development)	Parks and Wildlife/ Office of Environmental Protection Authority (OEPA)/Commonwealth Department of the Environment and Energy (DotEE)	As soon as reasonably practicable or within 48 hours of detection
Significant Impacts detected by the monitoring program for Terrestrial or Marine matters of National Environmental Significance (NES) (attributable to the Gorgon Gas Development)	DotEE	Within 48 hours of detection
All quarantine incidents	Parks and Wildlife, DoF ¹ , DotEE, OEPA, and QEP (as appropriate)	As soon as reasonably practicable or within 48 hours of declaration
Observation	Report to	Timing
All procedural deviations (Level 2) recorded immediately before shipment to Barrow Island	Parks and Wildlife/OEPA	On request of Parks and Wildlife
Results for control and/or eradication arising from annual management program (weeds, NIS, or Marine Pests) will be reported	Parks and Wildlife, DoF ¹ , DotEE, OEPA, and QEP (as appropriate)	Annually until effectively remediated

¹ Reporting to DoF only applies to a Marine Pest quarantine incident. All other quarantine incidents can be reviewed via the DoF QEP representative.

7.3 Compliance Assurance

The compliance assurance program comprises two tiers:

- Audits of the quarantine management measures described in the QMS: These audits are conducted in accordance with the ABU Compliance Assurance Process (Ref. 44). Audits of the quarantine management measures described in the QMS will be conducted every six months during construction and at least every two years upon commissioning and thereafter. These audits assess the effectiveness of the QMS and if any corrective actions are required. Audit outcomes are reported in the annual Compliance Assessment Report.
- Audits of Contractor QMPs: The frequency of these audits is based on quarantine risk, with the frequency recorded in the Annual Quarantine Contractor Audit Schedule (as approved by the Chevron Australia Quarantine Manager). These audits assess contractor compliance with the requirements of their QMP and if any corrective actions are required. Audit outcomes are communicated to contractors and may be reported in the annual Compliance Assessment Report.

Actions arising from audit findings are tracked until their close-out.

Chevron Australia will report the results and outcomes of the quarantine compliance assurance program to Parks and Wildlife and the WA Conservation and Parks Commission.

7.4 Review of the QMS

The QMS will be reviewed annually during construction and at least every five years thereafter, or more often as required (e.g. in response to new technology or risk).

Reviews consider performance of the QMS and opportunities for improvement based on lessons learnt, technological advances, and changes in risk profile.

8.0 Terminology

Terminology used in this document is listed in Table 8-1. These terms align with those defined in:

- Schedule 2 of MS 800
- Schedule 2 of MS 769
- EPBC Reference: 2003/1294 and 2008/4178.

Table 8-1: Terminology

Term	Definition
ABU	Australian Business Unit
Acceptably low risk	A risk that is judged to be not greater than 'a slight chance of infection' after final quarantine clearance, as per the community Standards for Acceptable Risk published in the Final EIS/ERMP for the Proposed Gorgon Development (Ref. 16). The interpretation of this qualitative statement is informed by the large body of evidence of such judgements made by independent experts in QHAZ risk assessments of all pathways.
Additional Support Area	Gorgon Gas Development Additional Construction, Laydown, and Operations Support Area
AQIS	Former Australian Quarantine and Inspection Service; now known as Department of Agriculture and Water Resources (DAWR).
At risk	Being at risk of Material Environmental Harm or Serious Environmental Harm and/or, for the purposes of the EPBC Act relevant listed threatened species, threatened ecological communities and listed migratory species, at risk of Material Environmental Harm or Serious Environmental Harm.
Authorised Inspector	An inspector that has met the quarantine accreditation requirements (ABU-COP-01067 – Barrow Island Quarantine Standard for Accreditation of Contractors) and is authorised by Chevron Australia
Barriers	Quarantine measures to prevent the introduction of NIS and Marine Pests to Barrow Island and the waters surrounding Barrow Island.
Barrow Island Coordination Council Participants	The Gorgon Joint Venture Participants, the Barrow Island Joint Venture Participants, and any other future industry participant.
BICC	Barrow Island Coordination Council, as established under Schedule 1 of the <i>Barrow Island Act 2003</i> (WA)
BICC Participants	See Barrow Island Coordination Council Participants
Biome	A climatically and geographically defined area of ecologically similar climatic conditions such as communities of plants, animals, and soil organisms; often referred to as ecosystems.
Biosecurity	As per the <i>Biosecurity and Agricultural Management Act 2007</i> (WA): Protection from the adverse effect an organism has or may have on another organism or the environment or part of the environment.
BWI	Barrow Island
Carbon Dioxide (CO ₂) Injection System	The mechanical components required to be constructed to enable the injection of reservoir carbon dioxide, including but not limited to compressors, pipelines, and wells.
CO ₂	Carbon dioxide
Compliant	Free from discernible evidence of Quarantine Risk Material.

Term	Definition
Concession	<p>An approval to replace a quarantine barrier (e.g. application of residual insecticide, fumigation) required by a quarantine procedure or quarantine standard with an alternative barrier(s) (e.g. additional inspection requirement) if it can be demonstrated that the alternative barrier(s) can mitigate the quarantine risk to the same residual risk level as the initial barrier.</p> <p>A concession may apply if there are health, safety, corrosion, integrity, and/or practicality considerations.</p> <p>The Chevron Australia Quarantine Manager approves a concession.</p>
Construction	<p>Construction includes any Gorgon Gas Development-related (or action-related) construction and commissioning activities within the Terrestrial and Marine Disturbance Footprints, excluding investigatory works such as, but not limited to, geotechnical, geophysical, biological and cultural heritage surveys, baseline monitoring surveys, and technology trials.</p>
Continuous Improvement	<p>The process of enhancing the QMS to achieve quarantine compliancy and alignment with the Barrow Island Quarantine Policy. Equivalent to terminology in ISO 14001 (continual improvement) (Ref. 9).</p>
Control	<p>Measures to contain or restrict a population</p>
DAWR	<p>Commonwealth Department of Agriculture and Water Resources</p>
DEC	<p>Former Western Australian Department of Environment and Conservation (now Parks and Wildlife or Department of Environment Regulation)</p>
DoF	<p>Western Australian Department of Fisheries</p>
DotEE	<p>Commonwealth Department of the Environment and Energy</p>
EIS/ERMP	<p>Environmental Impact Statement/Environmental Review and Management Programme (for the Proposed Gorgon Gas Development dated September 2005) as amended or supplemented from time to time.</p>
Environmental Harm	<p>Has the meaning given by Part 3A of the <i>Environmental Protection Act 1986</i> (WA).</p>
EPA	<p>Western Australian Environmental Protection Authority</p>
EPBC Act	<p>Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i></p>
EPBC Reference: 2003/1294	<p>Commonwealth Ministerial Approval (for the Gorgon Gas Development) as amended or replaced from time to time.</p>
EPBC Reference: 2005/2184	<p>Commonwealth Ministerial Approval (for the Jansz Feed Gas Pipeline) as amended or replaced from time to time.</p>
EPBC Reference: 2008/4178	<p>Commonwealth Ministerial Approval (for the Revised Gorgon Gas Development) as amended or replaced from time to time.</p>
EPBC Reference: 2011/5942	<p>Commonwealth Ministerial Approval (for the Gorgon Gas Development Fourth Train Expansion Proposal) as amended or replaced from time to time.</p>
Eradicate	<p>Completely removing a species from Barrow Island and surrounding waters such that it cannot re-establish either by dispersal or through dormant propagules, with consideration of an appropriate time period for detection based on the biology of the species.</p>
ERP	<p>Emergency Response Plan</p>
Establish	<p>Where an NIS or Marine Pest survives following the first response and incursion response, and maintains a population (i.e. self-sustaining) as determined on a case-by-case basis and on advice from the QEP.</p>
Exemplar	<p>A species that represents (i.e. exemplifies) a group of species amongst the total pool of potential NIS or Marine Pests</p>

Term	Definition
Final Quarantine Clearance	<p>For materials and people:</p> <ul style="list-style-type: none"> Final Quarantine Clearance occurs when there is authorised release at a designated location (e.g. QAP, airports, kitchens, on board a vessel, or adjacent a vessel) by an Authorised Inspector for entry to or use on Barrow Island or waters surrounding Barrow Islands <p>For marine vessels:</p> <ul style="list-style-type: none"> Final Quarantine Clearance of topsides is granted by an Authorised Inspector upon arrival at Barrow Island and before cargo, discharge or loading commences. Final Quarantine Clearance of wetsides is granted when action item(s) raised either before mobilisation or during extended operations (where quarantine status has changed) have been verified completed by Chevron Australia Quarantine Manager.
First Response	Quarantine activities that occur immediately after the detection of a suspect NIS or Marine Pest. The aim is to contain, control, and eliminate.
GDA	Geocentric Data of Australia
GIS	Geographic Information System
Gorgon Gas Development	The Gorgon Gas Development as approved under MS 800 and 769, and under EPBC Reference: 2003/1294 and 2008/4178 (as varied by the Commonwealth Minister for Environment), as amended or replaced from time to time.
GTP	Gas Treatment Plant
ha	Hectare
Incursion	Detection of a NIS on Barrow Island or Marine Pest in the waters surrounding Barrow Island.
Incursion Response	Coordinated quarantine activities that aim to delineate, delimit, and eliminate positively identified NIS and Marine Pests.
Infection	The presence of Quarantine Risk Material at any step in a pathway of people, material, or vessels.
Introduction	<p>The presence of viable NIS on Barrow Island, or of a Marine Pest in the waters surrounding Barrow Island (excluding on vessel wetsides – refer to Quarantine Intercept).</p> <p>In both instances, the species will be considered introduced if the species has survived First Response and Incursion Response.</p>
ISO	International Organization for Standardization
ISO 14001	International standard that sets out the criteria for an environmental management system.
Jansz Feed Gas Pipeline	The Jansz Feed Gas Pipeline as approved in MS 769 and EPBC Reference: 2005/2184 as amended or replaced from time to time.
km	Kilometre
LNG	Liquefied Natural Gas
m	Metre
Marine Disturbance Footprint	The area of the seabed to be disturbed by construction or operations activities associated with the Marine Facilities listed in Condition 14.3 of MS 800 and Condition 12.3 of MS 769 and Condition 11.3 in EPBC Reference: 2003/1294 and 2008/4178 (excepting that area of the seabed to be disturbed by the generation of turbidity and sedimentation from dredging and dredge spoil disposal).

Term	Definition
Marine Facilities	<p>In relation to MS 800 and EPBC Reference: 2003/1294 and 2008/4178, the Marine Facilities are the:</p> <ul style="list-style-type: none"> • Materials Offloading Facility (MOF) • LNG Jetty • Dredge Spoil Disposal Ground • Offshore Feed Gas Pipeline System and marine component of the shore crossing • Domestic Gas Pipeline <p>For MS 800, Marine Facilities also include:</p> <ul style="list-style-type: none"> • Marine upgrade of the existing WAPET landing. <p>In relation to MS 769, Marine Facilities are the Offshore Feed Gas Pipeline System and marine component of the shore crossing.</p>
Marine Infrastructure	<p>Includes MOF, LNG Jetty, marine component of the WAPET Landing Upgrade, moorings, and their immediately adjacent areas (e.g. intertidal areas, dunes).</p>
Marine Pests	<p>As defined by Ministerial Statement 800:</p> <p>Species other than the native species known or those likely to occur in the waters of the Indo–West Pacific region and the Pilbara Offshore (PIO) marine bioregion in Interim Marine and Coastal Regionalisation for Australia: An Ecosystem Based Classification for Marine and Coastal Environments (Ref. 45), of which Barrow Island is a part, that threaten or may threaten biodiversity in the PIO marine bioregion. As a minimum, the National Introduced Pest Information System Database (NIMPIS; Ref. 46), National Priority Pests listed in the document National Priority Pests, Part II, Ranking of Australian Marine Pests (Ref. 47) will guide the interpretation of this definition. Additional species may be added on the advice of experts from the DoF and the QEP.</p> <p>In addition:</p> <p>Species identified by DoF as Marine Pests are recorded in the Western Australian Prevention List for Introduced Marine Pests (www.fish.wa.gov.au) where the species is acknowledged by Chevron Australia in consultation with DoF and QEP as being able to survive, establish and become invasive in the waters surrounding Barrow Island.</p> <p>Note: The Western Australian Prevention List for Introduced Marine Pests list will guide surveillance and incident classification.</p>
Marine Quarantine Controlled Access Zone	<p>As defined by Ministerial Conditions: The zone that extends from 500 m offshore from the Barrow Island MHHW mark and encompasses the entire coastline of Barrow Island. The zone also extends 500 m from all marine facilities contiguous with Barrow Island.</p>
Marine Quarantine Limited Access Zone	<p>The zone that commences at the outer boundary approximately 2.5 km from the Barrow Island shoreline (MHHW Mark) up to the 500 m mark from the shoreline.</p>
Material Environmental Harm	<p>Environmental Harm that is neither trivial nor negligible.</p>
MGA Zone 50	<p>Map Grid of Australia Zone 50 (WA); projection based on the Geocentric Datum of Australia 1994.</p>
MHHW	<p>Mean Higher High Water Mark</p>
MLF	<p>Marine Loading Facility</p>
MOF	<p>Materials Offloading Facility</p>
MS 1002	<p>Western Australian Ministerial Statement 1002, issued for the Gorgon Gas Development Fourth Train Expansion Proposal, as amended from time to time.</p>
MS 748	<p>Western Australian Ministerial Statement 748 (for the Gorgon Gas Development) as amended from time to time [superseded by MS 800].</p>

Term	Definition
MS 769	Western Australian Ministerial Statement 769 (for the Jansz Feed Gas Pipeline) as amended from time to time.
MS 800	Western Australian Ministerial Statement 800, issued for the Revised and Expanded Gas Development, as amended from time to time. MS 800 supersedes the Gorgon Gas Development as originally approved by MS 748. The conditions of MS 800 also apply to the Additional Support Area under MS 965.
MS 865	Western Australian Ministerial Statement 865 (for the Gorgon Gas Development) as amended from time to time.
MS 965	Western Australian Ministerial Statement 965 (for the Additional Support Area) as amended from time to time. MS 965 applies the conditions of MS 800 to the Additional Support Area.
MSB	Mainland Supply Base
Naturalised	An organism that is well established on Barrow Island or surrounding waters, has no obvious impact on the environment, is not feasible to eradicate, and has been approved as such by the relevant State Government Department.
NES	National Environmental Significance (as defined under the <i>EPBC Act</i> and includes listed threatened species and ecological communities, and migratory species).
NIMPIS	National Introduced Marine Pest Information System
NIS	See Non-indigenous Terrestrial Species
Non-indigenous Terrestrial Species	Any species of plant, animal, or microorganism not native to Barrow Island. Native: Species that naturally occur in a region.
OE	Operational Excellence
OEPA	Office of the [Western Australian] Environmental Protection Authority
Operations (Gorgon Gas Development)	In relation to MS 800 and EPBC Reference: 2003/1294 and 2008/4178, for the respective LNG trains, this is the period from the date on which the Gorgon Joint Venturers issue a notice of acceptance of work under the EPCM contract, or equivalent contract entered into in respect of that LNG train of the Gas Treatment Plant; until the date on which the Gorgon Joint Venturers commence decommissioning of that LNG train.
Operations (Jansz Feed Gas Pipeline)	In relation to MS 769, for the pipeline, this is the period from the date on which the Proponent issues a notice of acceptance of work under the EPCM contract, or equivalent contract entered into in respect of that pipeline; until the date on which the Proponent commences decommissioning of that pipeline.
OSPREY	Observing Safety Protects Resources, Environment and You: A behaviour-based program that identifies 'at risk' behaviours during work tasks.
Parks and Wildlife	Western Australian Department of Parks and Wildlife (formerly DEC)
Pathway	A route of exposure that might enable NIS or Marine Pests to be introduced to a native environment outside their natural range.
Performance Standards	Matters that are developed for assessing performance, not compliance, and are quantitative targets or where that is demonstrated to be not practicable, qualitative targets, against which progress towards achievement of the objectives of conditions can be measured.
PIO	Pilbara Offshore (Marine Bioregion)

Term	Definition
Practicable	<p>For MS 769 and 800 means reasonably practicable having regard to, among other things, local conditions and circumstances (including costs) and to the current state of technical knowledge.</p> <p>For EPBC Reference: 2003/1294 and 2008/4178 that include the term 'practicable', when considering whether the draft plan meets the requirements of these conditions, the Commonwealth Minister will determine what is 'practicable' having regard to local conditions and circumstances including but not limited to personnel safety, weather or geographic conditions, costs, environmental benefit, and the current state of scientific and technical knowledge.</p>
Proliferation	<p>Increase of a species, attributable to the Gorgon Gas Development, by frequent and repeated reproduction:</p> <ul style="list-style-type: none"> • NIS plants (excluding those considered to be naturalised) proliferation: an increase in the distribution of NIS plants producing propagules outside existing Weed Hygiene Zones. • NIS animals' proliferation: an increase in reproductively capable offspring dispersing outside the known distribution. • Marine Pest proliferation: an increase in reproductively-capable offspring of an established Marine Pest, dispersing outside the known distribution in the waters surrounding Barrow Island
Propagules	<p>Propagating parts and life cycle stages of organisms, including zygotes, cysts, larvae, spores, seeds, and other self-regenerative material.</p>
Putative	<p>Species for which distribution or taxonomic status is in question and awaits scientific confirmation as to whether such species is native or non-indigenous to an area.</p>
QAP	<p>See Quarantine Approved Premise</p>
QEP	<p>Quarantine Expert Panel</p>
QHAZ	<p>Quarantine Hazard Analysis</p>
QMP	<p>Quarantine Management Plan</p>
QMS	<p>Quarantine Management System</p>
Quarantine Approved Premises	<p>Premises that meeting the requirements defined in Guidelines for the Design of the Quarantine Approved Premises (G1-NT-GDLX0000058).</p>
Quarantine Compliant	<p>The item has been inspected and is free from discernible evidence of contaminants and Marine Pests, and has met the Barrow Island quarantine requirements (e.g. chemical treatments, timber treatment).</p>
Quarantine Event	<p>Any case where a suspected NIS or Marine Pest, or quarantine procedural deviation, is observed and reported.</p>
Quarantine Incident	<p>A quarantine incident is declared (declaration is subject to positive identification*) by the Chevron Australia Quarantine Manager following:</p> <ul style="list-style-type: none"> • a detection of NIS or Marine Pest on Barrow Island after Final Quarantine Clearance, or • the proliferation of an NIS population on Barrow Island or Marine Pest in the waters surrounding Barrow Island. <p>* Positive identification is taxonomic (morphologic or molecular) confirmation in every instance except where there is high certainty of species identification in the expert judgement of the Chevron Australia Quarantine Manager.</p>

Term	Definition
<p>Quarantine Incident – Level 1</p>	<p>A confirmed detection of NIS on Barrow Island, after Final Quarantine Clearance, where the risk of the species to the biodiversity of Barrow Island is considered by Chevron Australia, on advice of the QEP, to be low</p> <p>or</p> <p>A proliferation of existing NIS on Barrow Island as a consequence of Gorgon Gas Development activities.</p> <p>Examples of Level 1 Quarantine Incidents are:</p> <ul style="list-style-type: none"> • Italian White Snail, Portuguese Millipede, Black House Spider, parachute seeds • serving a prohibited food (e.g. guava, viable seeds) in the diner at Butler Park (but not removed from the diner) • dispersing Buffel Grass (by Gorgon Gas Development plant and equipment) outside a Weed Hygiene Zone to a previously weed-free area. <p>Note: An introduction of a Marine Pest is classified as a Level 3 Incident only.</p>
<p>Quarantine Incident – Level 2</p>	<p>A confirmed detection of NIS on Barrow Island, after Final Quarantine Clearance, where:</p> <ul style="list-style-type: none"> • uncertainty exists (as determined by Chevron Australia, on advice of the QEP) as to the risk of the species to the biodiversity of Barrow Island due to a range of factors (e.g. the ability of the species to survive on Barrow Island, availability of suitable habitats), or • the risk to the biodiversity of Barrow Island is considered to be high (as determined by Chevron Australia, on advice of the QEP), but the ability to detect and eradicate is considered readily achievable (due to factors such as visibility, fecundity, slow dispersal etc.). <p>Examples of Level 2 Quarantine Incidents are:</p> <ul style="list-style-type: none"> • Western Marble Gecko (due to limited potential to survive outside the built environment or cave-like structures) • Red Fire Ant (due to the limited availability of accessible permanent water) • Whorled pigeon grass (due to limited suitable habitat). <p>Note: An introduction of a Marine Pest is classified as a Level 3 Incident only.</p>
<p>Quarantine Incident – Level 3</p>	<p>Terrestrial NIS: A confirmed detection of NIS on Barrow Island, after Final Quarantine Clearance, where:</p> <ul style="list-style-type: none"> • the risk to the biodiversity of Barrow Island is considered to be high and the ability to detect and eradicate is difficult (as determined by Chevron Australia, on advice of the QEP), and/or • the consequence of eradication/control actions on the biodiversity of Barrow Island is considered to be high (as determined by Chevron Australia, on advice of the QEP). <p>Marine Pest: A confirmed detection of a Marine Pest on marine infrastructure or in the waters surrounding Barrow Island. Note: A Marine Pest that has only been detected on the wetsides of a vessel and not on marine infrastructure and/or in the waters surrounding Barrow Island is not considered an incident (see Quarantine Intercept).</p> <p>Examples of Level 3 Quarantine Incidents are:</p> <ul style="list-style-type: none"> • Black rat (due to its high mobility, threat to biodiversity, and potential consequence of eradication measures) • Natal Grass (due to demonstrated capability to invade environments such as Barrow Island and difficulty to eradicate) • Buffel Grass • Asian Green Mussel • Asian House Gecko.

Term	Definition
Quarantine Intercept	<p>Terrestrial NIS: The detection, containment, and removal of suspected NIS prior to Final Clearance.</p> <p>Marine Pest: The detection, containment, and removal of a Marine Pest on a vessel (including barges etc.) wetsides after Final Quarantine Clearance is granted and when the vessel is within the limited access zone or controlled access zone.</p>
Quarantine Intercept Register	<p>A report that documents the process of assessment and actions taken in response to a quarantine observation, completed in consultation with Parks and Wildlife.</p>
Quarantine Non-event	<p>A positive identification that a suspect NIS or Marine Pest is not an NIS or Marine Pest or is not viable (e.g. dead), therefore posing no risk to the biodiversity of Barrow Island, or is deemed to not be related to Gorgon Gas Development activities.</p> <p>Examples of a Quarantine Non-event are:</p> <ul style="list-style-type: none"> • species that are indigenous to Barrow Island • dead NIS or Marine Pests • non-viable plant material • NIS or Marine Pest that was established before Gorgon Gas Development activities commenced • a widely distributed insect species occurring in Australia but not previously recorded in the baseline surveys of invertebrates on Barrow Island; however, it is expected to be present on Barrow Island on the advice of experts • vagrants
Quarantine Procedural Deviation	<p>Any case where a quarantine observation, inspection, or audit detects a failure to comply with Barrow Island quarantine procedures, standards, or concessions.</p>
Quarantine Procedural Deviation – Level 1	<p>Upon arrival of a vessel or material at Barrow Island, it is determined that a quarantine procedure, or part thereof, has not been followed and the potential impact of the deviation has low risk to the biodiversity of Barrow Island and surrounding waters.</p> <p>Examples of Level 1 Quarantine Procedural Deviations are:</p> <ul style="list-style-type: none"> • incomplete or incorrect Gorgon Gas Development quarantine documentation • container seals broken but doors still shut • quarantine status tags missing from cargo • loss of a completed checklist.
Quarantine Procedural Deviation – Level 2	<p>Upon arrival of a vessel or material at Barrow Island, it is determined that a quarantine procedure, or part thereof, has not been followed and the potential impact of the deviation has high risk to the biodiversity of Barrow Island and surrounding waters.</p> <p>Examples of Level 2 Quarantine Procedural Deviations are:</p> <ul style="list-style-type: none"> • importing a prohibited material (e.g. road base, navel oranges) • incorrect tagging of cargo as ‘quarantine compliant’ • mobilising a marine vessel that has not undergone a 48-hour stand-off for rodent baiting and trapping.
Quarantine Remediation Area	<p>The designated locations for remedial treatment just before Final Quarantine Clearance.</p> <p>These locations include airport arrival facilities for transit passengers, kitchen/diner facility, WAPET Landing remedial cleaning areas, and the DAWR-approved QAP associated with the MOF.</p>

Term	Definition
Response Caches	A store of equipment and chemicals kept on Barrow Island to enable a rapid response to incursions. The range of equipment and chemicals contained in caches includes items generic to all caches and those specific to the targeted species—details are identified in individual SAPs.
SAP	Species Action Plan
Serious Environmental Harm	Environmental harm that is: a) irreversible, of a high impact or on a wide scale; or b) significant or in an area of high conservation value or special significance and is neither trivial nor negligible.
Significant Impact	As defined by EPBC Act and relating to a matter of NES An impact on a Matter of NES or their habitat, relevant to EPBC Reference: 2003/1294, 2005/2185, and 2008/4178 that is important, notable, or of consequence having regard to its context or intensity.
Smaller Islands	Defined as the islands close to Barrow Island (generally known as Boodie, Pasco, Boomerang, Middle, Double, Pelican, Cormorant, Prince, and Mushroom Islands, and Oyster [or Tringa] Rocks). Gorgon Gas Development activities (e.g. environmental monitoring) undertaken on the smaller islands are in accordance with the requirements of the QMS (e.g. regular surveillance for NIS on the smaller islands, inspection of people and equipment moving between the Smaller Islands and Barrow Island). If a quarantine event attributable to the Gorgon Gas Development is recorded on a smaller island, the requirements of this QMS (e.g. incursion response) prevail.
State Waters	The marine environment within three nautical miles of the coast of Barrow Island or the mainland of Western Australia.
TAPL	Texaco Australia Pty Ltd
Taxon (plural: taxa)	A taxon, or taxonomic unit, is a name designating an organism or a group of organisms.
Terrestrial Disturbance Footprint	As defined by Ministerial Conditions: The area to be disturbed by construction or operations activities associated with the Terrestrial Facilities listed in Condition 6.3 of MS 800, Condition 6.3 of MS 769 and Condition 5.2 of EPBC Reference: 2003/1294 and 2008/4178, and set out in the Terrestrial and Subterranean Baseline State and Environmental Impact Report required under Condition 6.1 of MS 800, Condition 6.1 of MS 769 and Condition 5.1 of EPBC Reference: 2003/1294 and 2008/4178.
Terrestrial Facilities	In relation to MS 800 and EPBC Reference: 2003/1294 and 2008/4178, the Terrestrial Facilities are the: <ul style="list-style-type: none"> • Gas Treatment Plant • Carbon Dioxide Injection System • Associated Terrestrial Infrastructure forming part of the Proposal • Areas impacted for seismic data acquisition • Onshore Feed Gas Pipeline System and terrestrial component of the Shore Crossing. Terrestrial Facilities also include those defined in Condition 6.3 of MS 769 (the Onshore Feed Gas pipeline system and the terrestrial component of the Shore Crossing) and Schedule 1 of MS 965 (the Additional Support Area).
Terrestrial Quarantine Controlled Access Zone	The Terrestrial Quarantine Controlled Access Zone includes the points of entry to Barrow Island and their associated Quarantine Remediation Areas and QAPs.

Term	Definition
Terrestrial Quarantine Limited Access Zone	Terrestrial Quarantine Limited Access Zone includes the boundaries of any site where Gorgon Gas Development activities are being undertaken on Barrow Island, including Gorgon administration sites, construction camp site, laydown areas within the construction site, horizontal directional drilling site, LNG construction site, and WA Oil infrastructure such as the accommodation camp, warehouses, administration areas, drill pads, and laydown areas. Terrestrial Quarantine Limited Access Zone also includes all Barrow Island 'corridors' such as roads, pipelines, power lines, shore crossings, survey transects, and drill pads outside construction and operations sites.
Terrestrial Quarantine Restricted Access Zone	Terrestrial Quarantine Restricted Access Zone includes all terrestrial areas of Barrow Island that are not included in the Quarantine Terrestrial Controlled Access Zone and the Quarantine Terrestrial Limited Access Zone.
Topsides	All parts of a vessel that are not regularly immersed or wetted with sea water during normal operation.
Vagrant	An animal that is observed well outside its normal range and is not recognised as a resident of or migrant to Barrow Island or waters surrounding Barrow Island.
WA	Western Australia
WAPET	West Australian Petroleum Pty Ltd.
WAPET Landing	Proper name referring to the site of the barge landing existing on the east coast of Barrow Island before the date of MS 800.
Waters Surrounding Barrow Island	Refers to the waters of the Barrow Island Marine Park and Barrow Island Marine Management Area (approximately 4169 ha and 114 693 ha respectively) as well as the Port of Barrow Island representing the Pilbara Offshore Marine Bioregion, which is dominated by tropical species that are biologically connected to more northern areas by the Leeuwin Current and the Indonesian Throughflow resulting in a diverse marine biota typical of the Indo–West Pacific flora and fauna.
Weed	A plant that is not indigenous to Barrow Island
Weed Hygiene Zone	An area within which non-indigenous plant species, assessed to be high-risk species, have established populations and/or where a seedbank of a high-risk species is present.
Wetsides	All parts of a vessel that are regularly immersed or wetted with sea water during normal operation.

9.0 References

The following documentation is directly referenced in this document.

Table 9-1: References

Ref. No.	Description
1.	Government of Western Australia, Minister for the Environment, David Templeman MLA. 2008. <i>Statement that a Proposal may be Implemented – Jansz Feed Gas Pipeline: Barrow Island Nature Reserve (Ministerial Statement 769)</i> , 28 May 2008. Perth, Western Australia.
2.	Commonwealth Government of Australia, Assistant Secretary Environmental Assessment Branch, Anne-Marie Delahunt. 2006. <i>Decision to Approve the taking of an Action – Jansz Feed Gas Pipeline (EPBC Reference: 2005/2184)</i> , 22 March 2006. Canberra, Australian Capital Territory.
3.	Government of Western Australia, Minister for the Environment, Youth, Donna Faragher JP MLC. 2009. <i>Statement that a Proposal may be Implemented – Gorgon Gas Development Revised and Expanded Proposal: Barrow Island Nature Reserve (Ministerial Statement 800)</i> , 10 August 2009. Perth, Western Australia.
4.	Commonwealth Government of Australia, Minister for the Environment, Water, Heritage and the Arts, Peter Garrett. 2009. <i>Approval – Gorgon Gas Development (EPBC Reference: 2008/4178)</i> , 26 August 2009. Canberra, Australian Capital Territory.
5.	Commonwealth Government of Australia, Minister for the Environment and Water Resources, Malcolm Turnbull. 2007. <i>Approval – Gorgon Gas Development (EPBC Reference: 2003/1294)</i> , 3 October 2007. Canberra, Australian Capital Territory.
6.	Government of Western Australia, Minister for the Environment; Heritage. Albert P. Jacob JP MLA. 2014. <i>Statement that a Proposal may be Implemented – Gorgon Gas Development Additional Construction Laydown and Operations Support Area (Ministerial Statement 965)</i> . Perth, Western Australia.
7.	Government of Western Australia, Minister for the Environment; Heritage. Albert Jacob MLA. 2015. <i>Statement that a Proposal may be Implemented – Gorgon Gas Development Fourth Train Expansion Proposal (Ministerial Statement 1002)</i> . Perth, Western Australia.
8.	Chevron Australia. 2005. <i>Draft Environmental Impact Statement/Environmental Review and Management Programme for the Proposed Gorgon Gas Development</i> . Chevron Australia, Perth, Western Australia.
9.	Standards Australia/Standards New Zealand. 2004. <i>ISO 14001:2004 Environmental Management Systems – Requirements with Guidance for Use</i> . Standards Australia/Standards New Zealand, Sydney/Wellington.
10.	Government of Western Australia, Minister for the Environment, David Templeman MLA, 2007. <i>Statement that a Proposal may be Implemented – Gorgon Gas Development: Barrow Island Nature Reserve (Ministerial Statement 748)</i> , 6 September 2007. Perth, Western Australia.
11.	Government of Western Australia, Minister for the Environment, Water, Bill Marmion MLA. 2011. <i>Statement to Amend Conditions Applying to the Gorgon Gas Development Revised and Expanded Proposal Barrow Island Nature Reserve (Ministerial Statement 865)</i> 7 June 2011. Perth, Western Australia.
12.	Chevron Australia. 2009. <i>Gorgon Project: Barrow Island Coordination Council Development Proposal</i> . Chevron Australia, Perth, Western Australia. (G1-NT-REPX0000126; Commercial in Confidence)
13.	Chevron Australia. 2008. <i>Barrow Island Quarantine Policy</i> . Chevron Australia, Perth, Western Australia. (G1-PP-HES-POL-0002)
14.	Environmental Protection Authority. 2003. <i>Bulletin 1101 – Environmental Advice on the Principle of Locating a Gas Processing Complex on Barrow Island Nature Reserve Gorgon Venture: Section 16 Report and Recommendations of the Environmental Protection Authority</i> . Environmental Protection Authority, Perth, Western Australia.

Ref. No.	Description
15.	E-Systems. 2005. <i>How-to Guide for Conducting Risk-based Assessments of Quarantine Threats to Barrow Island</i> . Prepared for Chevron Australia, Perth, Western Australia. (GO-VE-H-0000-GENX001)
16.	Chevron Australia. 2006. <i>Final Environmental Impact Statement/Environmental Review and Management Programme for the Gorgon Gas Development</i> . Chevron Australia, Perth, Western Australia.
17.	Chevron Australia. 2013. <i>Quarantine Risk Register</i> . Chevron Australia, Perth, Western Australia. (G1-NT-LISX0000178)
18.	Chevron Australia. 2016. <i>ABU Standard Quarantine Exhibit</i> . Chevron Australia, Perth, Western Australia. (ABU-COP-02055)
19.	Chevron Australia. 2015. <i>Barrow Island Quarantine: Advice Report</i> . Chevron Australia, Perth, Western Australia. (ABU-COP-01449)
20.	Chevron Australia. 2016. <i>Barrow Island Quarantine: Concession Request</i> . Chevron Australia, Perth, Western Australia. (ABU-COP-01896)
21.	Chevron Australia. 2016. <i>BWI Quarantine Management of Change Form</i> . Chevron Australia, Perth, Western Australia. (ABU-COP-01939)
22.	Chevron Australia. 2015. <i>Barrow Island Quarantine: Quarantine Management Plan Framework for Contractors</i> . Chevron Australia, Perth, Western Australia. (ABU-COP-01081)
23.	Chevron Australia. 2015. <i>Barrow Island Quarantine Vessel Quarantine Management Plan Framework</i> . Chevron Australia, Perth, Western Australia. (ABU-COP-01078)
24.	Chevron Australia. 2010. <i>Barrow Island Quarantine: Quarantine Awareness Strategy</i> . Chevron Australia, Perth, Western Australia. (G1-NT-PPRX0000035)
25.	Chevron Australia. 2015. <i>ABU Records Retention Schedule – ABU Standardised OE Procedure</i> . Chevron Australia, Perth, Western Australia. (OE-03.02.113)
26.	Whittle, P., Barrett, S., Jarrad, F., Murray, J., Mengersen, K., Hardie, D., Nietrzeba, A., Stoklosa, R., Parkes, J. and Majer, J. 2011. <i>Design of Detection Surveillance Systems for Non-indigenous Species of Terrestrial Invertebrates, Plants and Vertebrates on Barrow Island</i> . Report to Chevron Australia, Cooperative Research Centre for National Plant Biosecurity, Bruce, Australia Capital Territory. (G1-NT-REPX0002062)
27.	Chevron Australia. 2016. <i>Gorgon Project: Vertebrate NIS Surveillance model</i> . Chevron Australia, Perth, Western Australia. (G1-NT-REPX0008030)
28.	Chevron Australia. 2016. <i>Gorgon Project: Invertebrate NIS Surveillance model</i> . Chevron Australia, Perth, Western Australia. (G1-NT-REPX0008031)
29.	Chevron Australia. 2016. <i>Gorgon Project: Plant NIS Surveillance model</i> . Chevron Australia, Perth, Western Australia. (G1-NT-REPX0008032)
30.	Department of Agriculture and Water Resources. 2010. <i>Australian Marine Pest Monitoring Guidelines: Version 2</i> . Department of Agriculture and Water Resources, Canberra, Australian Capital Territory.
31.	Chevron Australia. 2014. <i>Guideline for Generic Diseases Management Protocol</i> . Chevron Australia, Perth, Western Australia. (G1-NT-GDLX0000197)
32.	Environmental Protection Authority. 2004. <i>Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia. Guidance Statement No. 51</i> . Environmental Protection Authority, Perth, Western Australia.
33.	Environmental Protection Authority. 2004. <i>Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia. Guidance Statement No. 56</i> . Environmental Protection Authority, Perth, Western Australia.
34.	Chevron Australia. 2016. <i>Quarantine Response Guideline for Barrow Island</i> . Chevron Australia, Perth, Western Australia. (ABU-COP-01979)

Ref. No.	Description
35.	Chevron Australia. 2010. <i>Gorgon Project: Quarantine Incursion Response Plan</i> . Chevron Australia, Perth, Western Australia. (G1-NT-PLNX0000849)
36.	Chevron Australia. 2011. <i>ABU Emergency Response Plan</i> . Chevron Australia, Perth, Western Australia. (OE-11.01.11)
37.	Chevron Australia. 2014. <i>Gorgon Gas Development and Jansz Feed Gas Pipeline Post-Construction Rehabilitation Plan</i> . Chevron Australia, Perth, Western Australia. (G1-NT-PLNX0000303)
38.	Chevron Australia. 2009. <i>Gorgon Gas Development and Jansz Feed Gas Pipeline Non-indigenous Species Management Procedure</i> . Chevron Australia, Perth, Western Australia. (G1-PP-QRT-POL-0001)
39.	Chevron Australia. 2014. <i>Gorgon Gas Development and Jansz Feed Gas Pipeline: Weed Hygiene Common User Procedure</i> . Chevron Australia, Perth, Western Australia. (G1-PP-HES-PRC-0016)
40.	Chevron Australia. 2013. <i>Barrow Island Quarantine: Quarantine Species Action Plan Framework</i> . Chevron Australia, Perth, Western Australia. (G1-NT-PLNX0000822)
41.	Chevron Australia. 2015. <i>Barrow Island Quarantine Marine Vessels Procedure</i> . Chevron Australia, Perth, Western Australia. (ABU-COP-01062)
42.	Chevron Australia. 2012. <i>Incident Investigation and Reporting, ABU – Standardised OE Process</i> . Chevron Australia, Perth, Western Australia. (OE-09.00.01)
43.	Chevron Australia. 2012. <i>Competency Development and Assurance, ABU – Standardized OE Process</i> . Chevron Australia, Perth, Western Australia. (OE-03.13.01)
44.	Chevron Australia. 2012. <i>ABU – Compliance Assurance Process</i> . Chevron Australia, Perth, Western Australia. (OE-12.01.01)
45.	Environment Australia. 1998. <i>Interim Marine and Coastal Regionalisation for Australia: An Ecosystem Based Classification for Marine and Coastal Environments</i> . Environment Australia, Canberra, Australian Capital Territory.
46.	Department of Environment and Water Resources. <i>National Introduced Pest Information System Database</i> . Department of Environment and Water Resources, Canberra, Australian Capital Territory. Available from: http://data.daff.gov.au/marinepests/ [Last accessed: 22 April 2016]
47.	Hayes, K., Sliwa, C., McEnnulty, F., Dunstan, P. 2005. <i>National Priority Pests: Part II ranking of Australian marine pests</i> , CSIRO Division of Marine Research final report for the Australian Government Department of Environment and Heritage. Available from: http://www.environment.gov.au/system/files/resources/02d33408-ad61-4d11-b5a4-6bf1aa333776/files/priority2.pdf . [Last accessed: 22 April 2016]
48.	Chevron Australia. 2015. <i>Barrow Island Quarantine Standard for Accreditation of Contractors</i> . Chevron Australia, Perth, Western Australia (ABU-COP-01067)
49.	Chevron Australia. 2016. <i>Terrestrial and Subterranean Environment Monitoring Program</i> . Chevron Australia, Perth, Western Australia (ABU-COP-01696)
50.	Chevron Australia. 2016. <i>HES Design of Detection Surveillance Systems for Marine Pests in the Waters surrounding Barrow Island</i> (ABU170101058)

Appendix A Measures to Prevent Introductions of NIS and Marine Pests

Quarantine Guidelines			
Mobilisation of People, Material, and Vessels	Inspections	Compliance Activities	Quarantine Facilities
Quarantine Guidelines for the Development of Procedures for the Food and Perishables Pathway (G1-NT-GDLX0000015)	Quarantine Inspection Guidelines for Air Freight (G1-NT-GDLX0000044)	Quarantine Guidelines for Downstream Rock Supply on Barrow Island (G1-NT-GDLX0000034)	Guidelines for the Design of the Quarantine Approved Premises (G1-NT-GDLX0000058)
Quarantine Guidelines for the Development of Procedures for the Plant and Mobile Equipment Pathway (G1-NT-GDLX0000016)	Quarantine Inspection Guidelines for Containerised Goods (G1-NT-GDLX0000045)	Quarantine Guidelines for Containerisation, Crating, and Covering of Goods for Transshipment to Barrow Island (G1-NT-GDLX0000037)	Quarantine Guidelines for the Operation of the Quarantine Approved Premises (G1-NT-GDLX0000035)
Quarantine Guidelines for the Development of Procedures for the Pipe, Skid, Steel and Loose Equipment Pathway (G1-NT-GDLX0000017)	Quarantine Inspection Guidelines for Crated Material, Equipment and Goods (G1-NT-GDLX0000046)	Quarantine Guidelines for Receiving and Despatch of Goods at the Mainland Supply Bases and Marine Loading Facility (G1-NT-GDLX0000038)	
Quarantine Guidelines for the Development of Procedures for the Marine Vessel Wetsides Pathway (G1-NT-GDLX0000018)	Quarantine Inspection Guidelines for Domestic Marine Vessels (G1-NT-GDLX0000048)	Quarantine Guidelines for Fumigation in Quarantine Management (G1-NT-GDLX0000041)	
Quarantine Guidelines for the Development of Procedures for the Containerised Goods Pathway (G1-NT-GDLX0000019)	Quarantine Inspection Guidelines for Modules (G1-NT-GDLX0000049)	Quarantine Guidelines for Chemical Applications in Quarantine Management (G1-NT-GDLX0000042)	
Quarantine Guidelines for the Development of Procedures for the Personnel and Luggage Pathway (G1-NT-GDLX0000020)	Quarantine Inspection Guidelines for Personnel and Luggage (G1-NT-GDLX0000050)	Quarantine Guidelines for Storage of Goods at Mainland Supply Bases and Marine Loading Facilities (G1-NT-GDLX0000056)	
Quarantine Guidelines for the Development of Procedures for the Crated Material, Equipment and Goods Pathway (G1-NT-GDLX0000021)	Quarantine Inspection Guidelines for Plant and Mobile Equipment (G1-NT-GDLX0000051)	Quarantine Guidelines for Non-indigenous Species Specimen Collection and Preservation (G1-NT-GDLX0000064)	
Quarantine Guidelines for the Development of Procedures for the Sand and Aggregate Pathway (G1-NT-GDLX0000025)	Quarantine Inspection Guidelines for Sand and Aggregate (G1-NT-GDLX0000052)	Quarantine Guidelines for Quarantine Cleaning (G1-NT-GDLX0000066)	

Quarantine Guidelines			
Mobilisation of People, Material, and Vessels	Inspections	Compliance Activities	Quarantine Facilities
Quarantine Guidelines for the Development of Procedures for the Special and Sensitive Goods and Equipment Pathway (G1-NT-GDLX0000029)	Quarantine Inspection Guidelines for Skid, Steel and Loose Equipment (G1-NT-GDLX0000053)	Quarantine Guidelines – Requirements for Food Preparation and Consumption, and List of Prohibited Foods (G1-NT-GDLX0000072)	
Quarantine Guidelines for the Development of Procedures for the Modules Pathway (G1-NT-GDLX0000083)	Quarantine Inspection Guidelines for Special and Sensitive Goods and Equipment (G1-NT-GDLX0000054)	Quarantine Guidelines for Quarantine Housekeeping (G1-NT-GDLX0000073)	
Quarantine Guidelines for the Development of Procedures for the Air Freight Pathway (G1-NT-GDLX0000084)	Quarantine Inspection Guidelines for Transfer Flights via Barrow Island (G1-NT-GDLX0000055)	Quarantine Guidelines for Upstream Rock Supply in the Waters Surrounding Barrow Island (G1-NT-GDLX0000077)	
Quarantine Guidelines for the Development of Procedures for the Direct Shipments Pathway (G1-NT-GDLX0000085) (Note: This pathway was consolidated into the pathways covering vessels and the different goods, respectively)	Quarantine Inspection Guidelines for Food and Perishables (G1-NT-GDLX0000063)	Quarantine Guidelines for Journey Management (G1-NT-GDLX0000082)	
Quarantine Guidelines for the Development of Procedures for the Transfer of Passengers Pathway (G1-NT-GDLX0000086)			
Quarantine Guidelines for the Development of Procedures for the Domestic Vessel Topsides Pathway (G1-NT-GDLX0000195) (Note: This pathway was consolidated with the pathway covering Vessel Wetsides)			

Quarantine Procedures		
Mobilisation	Facilities Operation	Other
ABU-COP-01062 – Barrow Island Quarantine Barrow Island Marine Vessels Procedure (Excluding Trading Vessels)	ABU-COP-01063 – Barrow Island Quarantine Mainland Aviation Operations Procedure	ABU-COP-01081 – Barrow Island Quarantine: Quarantine Management Plan Framework for Contractors
BWI Quarantine Trading Vessels Procedure (ABU-COP-01080)		ABU-COP-01078 – Vessel Quarantine Management Plan Framework
ABU-COP-01687 – Barrow Island Quarantine: Sand, Aggregate and Rock Procedure	ABU-COP-01064 – Barrow Island Quarantine: BWI Operating Facilities Procedure	ABU-COP-01075 – Barrow Island Quarantine Marine Vessel Quarantine Status Questionnaire (MVQSQ)
ABU-COP-01448 – Barrow Island Quarantine: Procedure for Passengers Transferring via Barrow Island	ABU-COP-01065 – Barrow Island Quarantine: Mainland Operating Facilities Procedure	ABU-COP-01455 – Barrow Island Quarantine Marine Vessel Quarantine Mobilisation Certificate
Modules Quarantine Procedure (G1-PP-QRT-PRC-0012)		

Quarantine Standards
ABU-COP-01066 – Barrow Island Quarantine Standard for the Preparation of Material, Equipment and Food
ABU-COP-01069 – Barrow Island Quarantine Standard for Design
ABU-COP-01068 – Barrow Island Quarantine Standard for Quarantine Treatment
ABU-COP-01067 – Barrow Island Quarantine Standard for Accreditation of Contractors

Quarantine Checklists for use by Quarantine Inspectors	Quarantine Checklists for use by Contractors
Quarantine Inspection Checklist – Housekeeping, Cleaning, Plant and Pest Control (G1-NT-FRMX0000538)	Contractor Quarantine Inspection Checklist – Module Yard Pest Baiting and Trapping (G1-NT-FRMX0000609)
Quarantine Inspection Checklist – Clothing, Footwear and Luggage (G1-NT-FRMX0000539)	Contractor Quarantine Inspection Checklist – Trailer and Dolly (G1-NT-FRMX0000610)
Quarantine Inspection Checklist – Vehicles and Mobile Equipment (G1-NT-FRMX0000540)	Contractor Quarantine Inspection Checklist – Crated Goods and Pallets (G1-NT-FRMX0000611)
Quarantine Inspection Checklist – Trailer and Dolly (G1-NT-FRMX0000541)	
Quarantine Inspection Checklist – Scaffold Equipment (G1-NT-FRMX0000542)	Contractor Quarantine Inspection Checklist – Special and Sensitive Goods and Equipment including Control System (DCS) Panels (G1-NT-FRMX0000612)
Quarantine Inspection Checklist – Structural Steel and Pipe (G1-NT-FRMX0000543)	Contractor Quarantine Inspection Checklist – Vessel, Tower, Column and Heat Exchanger (G1-NT-FRMX0000613)
Quarantine Inspection Checklist – Crated Goods and Pallets Receival (G1-NT-FRMX0000544)	Contractor Quarantine Inspection Checklist – Welders, Compressors and Generators and Skid or Trailer Mounted Equipment (G1-NT-FRMX0000614)

Quarantine Checklists for use by Quarantine Inspectors	Quarantine Checklists for use by Contractors
Quarantine Inspection Checklist – Temporary Site Building (G1-NT-FRMX0000545)	Contractor Quarantine Inspection Checklist – Cargo Containers (G1-NT-FRMX0000615)
Quarantine Inspection Checklist – Aircraft Maintenance (G1-NT-FRMX0000546)	Contractor Quarantine Inspection Checklist – Housekeeping, Cleaning, Plant and Pest Control (G1-NT-FRMX0000616)
Quarantine Inspection Checklist – Special and Sensitive Goods and Equipment including Distributed Control System (DCS) Panels (G1-NT-FRMX0000547)	Contractor Quarantine Inspection Checklist – Generic (G1-NT-FRMX0000617)
Quarantine Inspection Checklist – Vessel, Tower, Column and Heat Exchanger (G1-NT-FRMX0000548)	Contractor Quarantine Inspection Checklist – Module Cleaning and Inspection (G1-NT-FRMX0000618)
Quarantine Inspection Checklist – Welders, Compressors and Generators and Skid or Trailer Mounted Equipment (G1-NT-FRMX0000549)	Contractor Quarantine Inspection Checklist – Vehicles and Mobile Equipment (G1-NT-FRMX0000619)
ABU-COP-01085 – Barrow Island Quarantine Vessel Wetsides Quarantine Checklist	Contractor Quarantine Inspection Checklist – Scaffold Equipment (G1-NT-FRMX0000620)
ABU-COP-01077 – Barrow Island Quarantine Vessel Topsides Quarantine Checklist	Contractor Quarantine Inspection Checklist – Structural Steel and Pipe (G1-NT-FRMX0000621)
Quarantine Inspection Checklist – Domestic Airfreight (G1-NT-FRMX0000552)	Contractor Quarantine Inspection Checklist – Temporary Site Building (G1-NT-FRMX0000622)
Quarantine Inspection Checklist – Module Cleaning and Inspection (G1-NT-FRMX0000553)	Contractor Quarantine Inspection Checklist – Packaging (G1-NT-FRMX0000623)
Quarantine Inspection Checklist – Module Yard Pest Baiting and Trapping (G1-NT-FRMX0000554)	Contractor Quarantine Inspection Checklist – Sand and Aggregate (G1-NT-FRMX0000624)
Quarantine Inspection Checklist – MSB/MLF Security Gate (G1-NT-FRMX0000555)	Contractor Quarantine Inspection Checklist – Tools and Toolboxes (G1-NT-FRMX0000625).
Quarantine Inspection Checklist – Refrigeration, Chiller and Cargo Containers (G1-NT-FRMX0000556)	
Quarantine Inspection Checklist – Sand and Aggregate (G1-NT-FRMX0000557)	
Quarantine Inspection Checklist – Tools and Toolboxes (G1-NT-FRMX0000558)	
Quarantine Inspection Checklist – Food and Perishables (G1-NT-FRMX0000559)	
Quarantine Inspection Checklist – Generic (G1-NT-FRMX0000560)	
Quarantine Inspection Checklist – Vessel Quarantine Compliance Verification (G1-NT-FRMX0000682)	
Quarantine Inspection Checklist – Air Freight Verification and Barrow Island (G1-NT-FRMX0001174)	
Quarantine Inspection Checklist – Perth Supply Base White Tag Verification Runsheet (G1-NT-FRMX0001176)	

Quarantine Checklists for use by Quarantine Inspectors	Quarantine Checklists for use by Contractors
Quarantine Inspection Checklist – Aircraft Verification at Barrow Island (G1-NT-FRMX0001189)	
Quarantine Inspection Checklist – Food and Perishables Receival at Barrow Island (G1-NT-FRMX0001193).	

Appendix B Species Action Plan List

Table 1 List of exemplar species action plans

Exemplar	Document Number
Invertebrates	
<i>Pheidole megacephala</i> (Big Headed Ant)	G1-NT-PLNX0000824
<i>Theba pisana</i> (White Italian Snail)	G1-NT-PLNX0000825
<i>Coptotermes formosanus</i> (Formosan Termite)	G1-NT-PLNX0000827
<i>Polistes dominulus</i> (Paper Wasp)	G1-NT-PLNX0000828
<i>Ceratothripoides claratris</i> (Oriental Tomato Thrips)	G1-NT-PLNX0000829
<i>Porcellionides pruinosus</i> (slater)	G1-NT-PLNX0000841
Synanthropic Pests	G1-NT-PLNX0000842
Spiders	G1-NT-PLNX0000843
Timber borers	G1-NT-PLNX0001685
<i>Phrynocaria astrolabiana</i> (Ladybird Beetle)	G1-NT-PLNX0001530
Vertebrates	
<i>Lepidodactylus lugubis</i> (Mourning Gecko)	G1-NT-PLNX0000820
<i>Rattus rattus</i> (Black Rat)	G1-NT-PLNX0000821
<i>Mus musculus</i> (House Mouse)	G1-NT-PLNX0000826
<i>Cryptoblepharus ustalatus</i> (Redback Skink)	G1-NT-PLNX0000830
<i>Litoria rubella</i> (Little Red Tree Frog)	G1-NT-PLNX0000831
<i>Anaesia perthensis</i> (Pygmy Python)	G1-NT-PLNX0000832
<i>Hemidactylus frenatus</i> (Asian House Gecko)	G1-NT-PLNX0001274
Plants	
<i>Cenchrus ciliaris</i> (Buffel Grass)	G1-NT-PLNX0000823
<i>Alternanthera pungens</i> (Khaki Weed)	G1-NT-PLNX0000833
<i>Stylosanthes hamata</i> (Pencil Flower)	G1-NT-PLNX0000834
<i>Tridax procumbens</i> (Coat Button Daisy)	G1-NT-PLNX0000835
<i>Passiflora foetida</i> (Stinking Passionflower)	G1-NT-PLNX0000836
<i>Aerva javanica</i> (Kapok)	G1-NT-PLNX0000848
Marine Pests	
<i>Perna viridis</i> (Asian Green Mussel)	G1-NT-PLNX0000837
<i>Hemigrapsus</i> spp. (Crab)	G1-NT-PLNX0000838
<i>Hydroides</i> spp. (Polychaete/Tubeworm)	G1-NT-PLNX0000839
<i>Balanus</i> spp. (Barnacle)	G1-NT-PLNX0000840
<i>Mytilopsis sallei</i> (Black Striped Mussel)	G1-NT-PLNX0000847

Table 2 NIS present in the Terrestrial Quarantine Controlled Access Zone and the Terrestrial Quarantine Limited Access Management Zone, Barrow Island before construction commenced (including those NIS considered putative) and the relevant Species Action Plan

NIS recorded on Barrow Island before construction commenced	Covered by Exemplar?	Relevant SAP
ANIMALS – Invertebrates		
ANTS		
<i>Cardiocondyla nuda</i> (Sneaking Ant)	No	This is a putative species. SAP will not be prepared until its taxonomic status is certain.
<i>Cerapachys longitarsus</i> (Cannibal Ant)	Yes	Covered by Exemplar – <i>Pheidole megacephala</i> (Big Headed Ant).
<i>Paratrechina longicornis</i> (Black Crazy Ant)	Yes	Covered by Exemplar – <i>Pheidole megacephala</i> (Big Headed Ant).
BEETLES		
<i>Attagenus</i> sp.	Yes	Covered by Exemplar – Synanthropic Pests
<i>Dermestes ater</i> (Dermestid beetle)	Yes	Covered by Exemplar – Synanthropic Pests
<i>Dermestes haemorrhoidalis</i> (Dermestid beetle)	Yes	Covered by Exemplar – Synanthropic Pests
<i>Lasioderma serricorne</i> (Cigarette Beetle)	Yes	Covered by Exemplar – Synanthropic Pests
<i>Leucohimatium arundinaceum</i> (Lizard Beetle)	Yes	Covered by Exemplar – Synanthropic Pests
<i>Necrobia rufipes</i> (Red-legged Ham Beetle)	Yes	Covered by Exemplar – Synanthropic Pests
<i>Tribolium confusus</i> (Confused flour beetle)	Yes	Covered by Exemplar – Synanthropic Pests
BOOKLICE		
<i>Dorypteryx domestica</i>	Yes	Covered by Exemplar – Synanthropic Pests
<i>Liposcelis bostrychophila</i>	Yes	Covered by Exemplar – Synanthropic Pests
<i>Liposcelis entomophila</i>	Yes	Covered by Exemplar – Synanthropic Pests
BUGS		
<i>Aphis craccivora</i> (Aphid)	Yes	Covered by Exemplar – Ladybird Beetle
<i>Aphis gossypii</i> (Aphid)	Yes	Covered by Exemplar – Ladybird Beetle

NIS recorded on Barrow Island before construction commenced	Covered by Exemplar?	Relevant SAP
<i>Montandoniola</i> sp.	No	This is a putative species. SAP will not be prepared until its taxonomic status is certain.
<i>Nesidiocoris tenuis</i> (Tomato Mirid)	Yes	Covered by Exemplar – Synanthropic Pests
COCKROACHES		
<i>Periplaneta americana</i> (American Cockroach)	Yes	Covered by Exemplar – Synanthropic Pests
<i>Supella longipalpa</i> (Brown banded Cockroach)	Yes	Covered by Exemplar – Synanthropic Pests
FLIES		
<i>Psychoda alternate</i> (Moth Fly)	Yes	Covered by Exemplar – Synanthropic Pests
MOTHS		
<i>Plodia interpunctella</i> (Indian Meal Moth)	Yes	Covered by Exemplar – Synanthropic Pests
<i>Plutella xylostella</i> (Diamondback moth)	Yes	Covered by Exemplar – Synanthropic Pests
SLATERS		
<i>Porcellionides pruinosus</i> (Woodlice/Delicate Slater)	Yes	Covered by Exemplar – <i>Porcellionides pruinosus</i> (Slater)
SILVERFISH		
<i>Ctenolepisma longicaudata</i> (Grey silverfish)	Yes	Covered by Exemplar – Synanthropic Pests
SPIDERS		
<i>Crossopriza lyoni</i> (Daddy long-legs)	Yes	Covered by Exemplar – Spiders
<i>Artema atlanta</i> (Giant Daddy long-legs)	Yes	Covered by Exemplar – Spiders
<i>Dictis striatipes</i> (Spitting Spider)	Yes	Covered by Exemplar – Spiders
<i>Latrodectus hasseltii</i> (Redback Spider)	Yes	This is a putative species. There is no agreement among scientists and taxonomists as to whether this species is native to Barrow Island or not. No additional work will be done until its taxonomic status is certain. If required this species would be covered by Exemplar – Spiders.

NIS recorded on Barrow Island before construction commenced	Covered by Exemplar?	Relevant SAP
<i>Oecobius navus</i> and <i>Oecobius parvus</i> (Urban Wall Spider)	Yes	Covered by Exemplar – Spiders
SPRINGTAILS		
<i>Hemisotoma</i> sp. cf. <i>thermophila</i> grp.	No	This is a putative species. SAP will not be prepared until its taxonomic status is certain.
<i>Hypogastrura</i> sp. cf. <i>vernalis</i>	No	This is a putative species. SAP will not be prepared until its taxonomic status is certain.
cf. <i>Isotoma viridis</i>	No	This is a putative species. SAP will not be prepared until its taxonomic status is certain.
<i>Mesophorura</i> sp.	No	This is a putative species. SAP will not be prepared until its taxonomic status is certain.
THRIPS		
<i>Frankliniella schultzei</i> (Tomato Thrips)	Yes	Covered by Exemplar – <i>Ceratothipoides claratris</i> (Oriental Tomato Thrips).
ANIMALS – Vertebrates		
<i>Litoria rubella</i> (Little Red Tree Frog)*	Yes	Covered by Exemplar – <i>Litoria rubella</i> (Little Red Tree Frog).
<i>Mus musculus</i> (House Mouse)*	Yes	Covered by Exemplar – <i>Mus musculus</i> (House Mouse)
<i>Rattus rattus</i> (Black Rat)*	Yes	Covered by Exemplar – <i>Rattus rattus</i> (Black Rat).
PLANTS		
<i>Aerva javanica</i> (Kapok)	Yes	Covered by Exemplar - <i>Aerva javanica</i> (Kapok)
<i>Arctotheca calendula</i> (Capeweed)*	Yes	Covered by Exemplar – <i>Tridax procumbens</i> (Coat Button Daisy).
<i>Cenchrus ciliaris</i> (Buffel Grass)	Yes	Covered by Exemplar – <i>Cenchrus ciliaris</i> (Buffel Grass).
<i>Centaureum erythraea</i> (Common Centaury)*	Yes	Covered by Exemplar – <i>Tridax procumbens</i> (Coat Button Daisy).
<i>Conyza bonariensis</i> (Flaxleaf Fleabane)	Yes	Covered by Exemplar – <i>Alternanthera pungens</i> (Khaki Weed).
<i>Cynodon dactylon</i> (Couch Grass)*	Yes	Covered by Exemplar – <i>Cenchrus ciliaris</i> (Buffel Grass).
<i>Dactyloctenium aegyptium</i> (Coast Button Grass)	Yes	Covered by Exemplar – <i>Cenchrus ciliaris</i> (Buffel Grass).

NIS recorded on Barrow Island before construction commenced	Covered by Exemplar?	Relevant SAP
<i>Emex australis</i> (Doublegee)*	Yes	Covered by exemplar – <i>Alternanthera pungens</i> (Khaki Weed).
<i>Eucalyptus gomphocephala</i> (Tuart)*	No	SAP will not be prepared until its taxonomic status is confirmed as NIS.
<i>Eucalyptus victrix</i> (Coolabah)	No	Covered by SAP - <i>Eucalyptus victrix</i> - Coolabah (G1-NT-PLNX0000844)
<i>Helichrysum luteoalbum</i> (Jersey Cudweed)*	Yes	Covered by Exemplar – <i>Tridax procumbens</i> (Coat Button Daisy).
<i>Lycopersicon esculentum</i> (Tomato)	Yes	Covered by Exemplar – <i>Stylosanthes hamata</i> (Pencil Flower).
<i>Papaver somniferum</i> (Common Poppy)*	Yes	Covered by Exemplar – <i>Stylosanthes hamata</i> (Pencil Flower).
<i>Passiflora foetida</i> var <i>hispida</i> (Stinking Passion Flower)*	Yes	Covered by Exemplar – <i>Passiflora foetida</i> (Stinking Passion flower).
<i>Setaria verticillata</i> (Whorled Pigeon Grass) +		Covered by SAP - <i>Setaria verticillata</i> (Whorled Pigeon Grass) (G1-NT-PLNX0000845)
<i>Solanum nigrum</i> (Blackberry Nightshade) Δ	Yes	Covered by Exemplar – <i>Stylosanthes hamata</i> (Pencil Flower).
<i>Sonchus oleraceus</i> (Common Sowthistle)	Yes	Covered by Exemplar – <i>Alternanthera pungens</i> (Khaki Weed).

* Not recorded any more.

+ Only detected in the Restricted Access Zone

Δ Also detected in the Restricted Access Zone

Table 3 SAPs developed for high-risk species, unless covered by an exemplar SAP

SAP Title	Document Number
<i>Hemidactylus frenatus</i> (Asian House Gecko)	G1-NT-PLNX0001274
<i>Passer montanus</i> (Tree Sparrow)	G1-NT-PLNX0001381

Table 4 SAPs developed for terrestrial NIS and Marine Pests intercepted or captured as part of first response after construction commenced

SAP Title	Document Number
<i>Lophognathus longirostris</i> (Long Nosed Water Dragon)	G1-NT-PLNX0001263
<i>Diplotaxis tenuifolia</i> (Sand Rocket)	G1-NT-PLNX0001282

SAP Title	Document Number
<i>Cortaderia spp</i> (Pampas Grass)	G1-NT-PLNX0001283
<i>Malus pumila</i> (Apple)	G1-NT-PLNX0001338
<i>Cimex lectulatus</i> (Bed Bugs)	G1-NT-PLNX0001397

Appendix C Compliance Reporting Table

Section No.	Key Actions/Commitments	Timing
5.1.1.2	Contractors will be issued quarantine procedures applicable to their specific scope of work that are to be incorporated into the Contractor Quarantine Management Plans (QMPs) and Marine Vessel QMPs	All phases
5.1.1.3	Contractors will be issued quarantine standards applicable to their specific scope of work that are to be incorporated into the Contractor QMPs and Marine Vessel QMPs.	All phases
5.1.2	A quarantine detection program (comprising observation, surveillance, and monitoring activities) will be implemented to ensure early detection of NIS or Marine Pests so eradication programs can be implemented before significant environmental consequences occur.	All phases
5.1.2.2.3	The Guideline for Generic Diseases Management Protocol (Ref. 31) will be implemented if an exotic disease is detected on Barrow Island or in the waters surrounding Barrow Island.	All phases
5.1.3.1	First response activities will be implemented if there is an uncontrolled loss of custody of a suspected NIS or Marine Pest or initial observation of a suspected NIS or Marine Pest (e.g. uncontained highly mobile species).	All phases
5.1.3.2	A species-specific incursion response plan will be developed and implemented if first response activities (if initiated) fail or if a confirmed NIS or Marine Pest is detected on Barrow Island or in the waters surrounding Barrow Island.	As required
5.1.3.2	The QEP and relevant government agencies (e.g. Parks and Wildlife, DoF) will be consulted during the development and implementation of the species-specific incursion response plan.	As required
5.1.4	An annual NIS or Marine Pest Management Program will be developed and implemented if an NIS or Marine Pest survives first response (where implemented) and incursion response to control and, unless otherwise determined by the Minister, eradicate NIS or Marine Pests.	All phases
5.1.4	The QEP and relevant government agencies (e.g. Parks and Wildlife, DoF) will be consulted during the development and implementation of the NIS or Marine Pest Management Program.	All phases
5.1.4.1	First response or incursion response (see Sections 5.1.3.1 and 5.1.3.2) will be implemented following any new discovery of weed species introduced or proliferated as a result of Gorgon Gas Development related activities. The objective of the response activities is to contain, control, and eradicate the introduction	All phases
5.1.4.1	If a detected weed species, attributed to the Gorgon Gas Development, survives the first response (where implemented) and the incursion response, and the weed species is considered to be a high risk to the biodiversity on Barrow Island (e.g. Buffel Grass), a weed management program (guided by the NIS Management Procedure (Ref. 40) will be developed and implemented.	All phases
5.1.5	If a high-risk NIS or Marine Pest has established on Barrow Island or in the waters surrounding Barrow Island, hygiene measures will be implemented to manage Gorgon Gas Development activities undertaken in the affected areas and to minimise the spread of NIS or Marine Pest.	All phases
5.1.5.1	If Gorgon Gas Development activities occur in an area where high-risk weeds or seed banks are known to occur, weed hygiene mitigation measures, relevant to the scope of work being undertaken, will be implemented to prevent the proliferation of such weeds.	All phases
5.1.7	Rehabilitation associated with the introduction of an NIS or Marine Pest or due to impacts caused during response, control and/or eradication will be undertaken in accordance with the Gorgon Gas Development Post-Construction Rehabilitation Plan (Ref. 37) and in consultation with the relevant government agencies (e.g. Parks and Wildlife, DoF).	All phases
5.2.1	QMS requirements will be communicated to all contractors via the ABU Standard Quarantine Exhibit (Ref. 18).	All phases

Section No.	Key Actions/Commitments	Timing
5.2.1.1	Contractors will develop and implement a Chevron Australia Quarantine Manager approved QMP if Chevron Australia assesses the contractor's scope of work as requiring specific quarantine controls (e.g. inspection, treatment, storage).	All phases
5.2.1.2	Contractors will develop and implement a Chevron Australia Quarantine Manager approved vessel QMP incorporating specific quarantine controls (e.g. wetside and topside compliance measures) if Chevron Australia assesses the contractor's scope of work as requiring a vessel QMP to be in place before authorisation to mobilise is granted.	All phases
5.2.2.1	Action items raised in Quarantine Advice Reports are to be closed out by the contractor in accordance with the timeframe specified in the Quarantine Advice Reports and to the satisfaction of the Chevron Australia Quarantine Manager.	All phases
5.2.2.2	If a concession to a quarantine barrier and/or management measure is approved by the Chevron Australia Quarantine Manager, a Concession Request (Ref. 20) will be granted for a defined period or activity.	All phases
5.2.4.1	All personnel visiting Barrow Island complete a quarantine induction.	All phases
5.2.4.2	Contractors are required to complete applicable quarantine training within three months of commencing employment.	All phases
5.2.4.2	An accreditation program for quarantine inspectors will be implemented as per the Barrow Island Quarantine Standard for Training and Accreditation (Ref. 48).	All phases
5.2.5.3	Documentation referenced in the QMS and information relating to the performance of the QMS (including surveillance and eradication/control reports) will be made available to relevant external stakeholders with regulatory responsibility in response to a request for information.	All phases
5.2.6.1	Chevron Australia will undertake quarantine studies from time to time (on advice of the QEP) if audits and performance monitoring indicate the need to do so.	As required
5.2.6.1	Chevron Australia will consider all QEP requests to commission a quarantine study and reply to the QEP within 30 working days of the receipt of such requests advising of the feasibility of conducting such a study, or if appropriate, recommend alternatives.	All phases
7.1	Quarantine events will be recorded and monitored to track performance of the QMS.	All phases
7.2	Quarantine incidents (attributable to the Gorgon Gas Development) resulting in Material or Serious Environmental Harm outside the Terrestrial or Marine Disturbance Footprints are to be reported to Parks and Wildlife/Office of Environmental Protection Authority (OEPA)/Commonwealth Department of the Environment (DotE) as soon as reasonably practicable or within 48 hours of detection.	All phases
7.2	Significant Impacts detected by the monitoring program for Terrestrial or Marine matters of NES (attributable to the Gorgon Gas Development) are to be reported to DotE within 48 hours of detection.	All phases
7.2	All quarantine incidents are to be reported to Parks and Wildlife, DoF, DotE, OEPA, and QEP (as appropriate) as soon as reasonably practicable or within 48 hours of declaration.	All phases
7.2	All procedural deviations (Level 2) recorded immediately before shipment to Barrow Island are to be reported to Parks and Wildlife on request of Parks and Wildlife.	All phases
7.2	Results for control and/or eradication arising from annual management program (weeds, NIS, or Marine Pests) will be reported to Parks and Wildlife, DoF, DotE, OEPA, and QEP (as appropriate) annually until effectively remediated.	All phases
7.3	Chevron Australia will report the results and outcomes of quarantine compliance assurance program to Parks and Wildlife and the WA Conservation and Parks Commission.	All phases
7.3	Audits of the quarantine management measures described in the QMS will be conducted every six months during construction and at least every two years upon commissioning and thereafter.	All phases

Section No.	Key Actions/Commitments	Timing
7.4	The QMS will be reviewed annually during construction and at least every five years thereafter, or more often as required (e.g. in response to new information).	All phases