ENVIRONMENTAL MANAGEMENT PLAN

2024 – 2025

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PILBARA PORTS

CONTENTS

DOCUMENT OWNER

The Director Environment and Heritage is responsible for this document.

INTRODUCTION

01

Introduction

Pilbara Ports is a Government Trading Enterprise regulated under the *Port Authorities Act 1999* (WA) (PAAct) and the *Government Trading Enterprises Act 2022* (GTE Act). Read together, the PAAct and the GTE Act define a clear role for all port authorities and establish lines of accountability and reporting requirements to the State Government.

Under the GTE Act, Pilbara Ports' core purpose is to advance public benefit through the performance of functions. Pilbara Ports' function are outlined in the PAAct and include:

- to facilitate trade within and through the port and plan for future growth and development of the port;
- to undertake or arrange for activities that will encourage and facilitate the development of trade and commerce generally for the economic benefit of the State through the use of the port and related facilities;
- to control business and other activities in the port or in connection with the operation of the port;
- to be responsible for the safe and efficient operation of the port;
- to be responsible for maintaining port property;
- to be responsible for port security; and
- to protect the environment of the port and minimise the impact of port operations on that environment.
- Pilbara Ports must perform these functions:
- consistent with its core purpose;
- to endeavour to achieve Government policy objectives set out in policy orders;
- in accordance with prudent commercial principles; and
- in accordance with its ministerially approved statement of expectations and annual performance statement.

Consistent with its statutory function to protect the port's environment and minimise the impact of port operations on that environment, Pilbara Ports' Board has approved an Environment and Cultural Heritage Policy. This Environmental Management Plan (EMP) has been developed to give effect to the commitments in the policy. The EMP is maintained under Pilbara Ports' Integrated Management System (IMS) and complies with ISO 9001:2015 (Quality), and ISO 14001:2015 (Environment).

The purpose of this EMP is to:

- Define the scope of Pilbara Ports' environmental management role and responsibility across its ports and corporate office. It also provides a framework to include additional ports which may be transitioned to Pilbara Ports' management control in the future;
- Outline how Pilbara Ports identifies and manages the risks and opportunities associated with delivering its services and activities to minimise impacts to the surrounding environment of its ports;
- Provide an overview of the significant environmental risks[1] for the current financial year and outline the key Treatment Action Plans (TAPs) that will address these risks (where applicable);
- Provide an overview of the priority environmental management areas for the current financial years and outline the key actions that will address these areas (where applicable);
- Outline Pilbara Ports' environmental objectives for the current financial year. In subsequent years, it will report progress against these objectives;
- Outline how Pilbara Ports identifies, fulfils, and reports on its legal and other requirements[2];
- Provide a framework for ensuring Pilbara Ports' environmental performance is continually and systematically improved;
- Provide a high-level overview of how environmental management meets the requirements of ISO14001:2015 and integrates with Pilbara Ports' IMS; and
- Highlight key reference documents, systems, and processes central to environmental management at Pilbara Ports.

[1] Within this EMP the term "significant environmental risk" has the same meaning as "Material Risk" as defined in Pilbara Ports Risk Management Procedure. A Material Risk has a residual risk rating of high or catastrophic or, the Plausible Maximum Consequence of an impact is high or catastrophic.

[2] Within this EMP, the term 'legal and other requirements' has the same meaning as the term 'compliance obligations' in ISO 14001:2015.

1.1 Pilbara Ports' services

Pilbara Ports is responsible for planning, developing, authorising, co-ordinating and controlling a range of port services across its four operational ports in the Pilbara.

These services include pilotage, navigation aids, anchorages, maintaining navigable depths (dredging), Vessel Traffic Services (VTS), port communications, ship scheduling, and berthing allocations. Note that the scope of Pilbara Ports' VTS Area for the Port of Dampier, Port of Port Hedland and Port of Ashburton also include additional waters immediately adjacent to the limits of these ports. Vessels operating within the Port of Varanus Island maintain their obligations under the Marine Order 30 (Prevention of Collision) for safe navigation (refer to port handbooks for more information, available at www.pilbaraports.com.au).

Pilbara Ports also operates several common user berths and provides for storage and handling of cargo at these berths. Pilbara Ports is the licensee (under the *Environment Protection Act 1986*) for the Utah Point Multi-User Bulk Handling Facility (Utah Facility) and Eastern Operations (East Side) berths 1 and 2 at the Port of Port Hedland. These facilities operate as multi-user facilities, designed to handle bulk cargoes from small to medium sized operations.

Pilbara Ports issues Licences and manages Service Agreements for a range of other services across its three operational ports, including pilotage, towage, mooring, lines boats, bunkering, pilot transfers and stevedoring at common user berths.

Pilbara Ports is also responsible for security within port areas, and cooperates with Commonwealth Government agencies responsible for customs, quarantine, maritime safety and security.

A large proportion of the lands in operational ports are leased to bulk exporters of commodities such as iron ore and liquefied natural gas. In addition, Pilbara Ports also leases land to a range of tenants who undertake light industrial and marine service activities associated with the development and operation of each operational port.

Pilbara Ports has a corporate office in Perth, situated approximately 1,500 kilometres south of the Pilbara region. The office provides a range of services in support of the ports and ensures a strategic connection to port proponents, regulators and the State Government. The office is a leased premise.

Since 2020, Pilbara Ports has been responsible for delivering the Port Hedland Spoilbank Marina project. The construction phase of this project falls within the scope of the EMP.

In 2020, a wholly owned subsidiary of Pilbara Ports – Hedland Maritime Initiative Pty Ltd – was tasked with the responsibility of administering a scheme – the Port Hedland Voluntary Buy-Back Scheme (PHVBS) – to voluntarily buy-back residential dwellings within the West End precinct (as part of the State Government's implementation of the Port Hedland Dust and Noise Management Taskforce Report) and to redevelop the area into a maritime precinct.

1.2 Pilbara Ports' locations

Pilbara Ports' is responsible for ports which are located along the Pilbara coastline from the Port of Ashburton near Onslow in the south, to the Port of Port Hedland in the north, including the Ports of Dampier and Varanus Island, with the Port of Cape Preston West currently under development.

A further four greenfield port locations have been identified for development: Balla Balla, Anketell, Cape Preston East, and at the location of Urala.

A brief description of Pilbara Ports operational and greenfield port developments is presented below.

In February 2019, the *Ports Legislation Amendment Act 2019* (WA) was enacted which will see five operational ports in the Pilbara region transitioned from the Department of Transport (DoT) to Pilbara Ports in a staged process. The first of these ports, the Port of Varanus Island, was transferred to Pilbara Ports on 1 July 2021. The remaining four operational ports will be transferred in a staged manner. All ports' locations are shown in Figure 1-1. A more detailed description of the environmental values unique to each port operated by Pilbara Ports can be found on the website www.pilbaraports.com.au.

1.2.1 Port of Ashburton

The Port of Ashburton is located on the west Pilbara coastline approximately 1,380 kilometres (by road) north of Perth and approximately 12 kilometres south-west of Onslow (Appendix 1A).

In October 2008, the Western Australian State Government endorsed the establishment of a port and strategic industrial area at Ashburton North. The Port of Ashburton is planned to be a multi-user port with an ultimate export capacity of 50 million tonne Liquefied Natural Gas (LNG) per annum, export capacity for other hydrocarbon-based products (including value-added processing), iron ore, general cargo and fuel and capacity for supply base activities to service offshore operations in the Carnarvon Basin.

Chevron Australia Pty Ltd (Chevron), on behalf of the Wheatstone Joint Venture partners, is the operator of the Wheatstone Marine Terminal (WMT) at the Port of Ashburton. The WMT enables Chevron to export LNG and other hydrocarbon-based products from the Wheatstone Project, which currently consists of two LNG trains with a combined capacity of 8.9 million tonnes per annum, and a domestic gas processing plant.

Pilbara Ports controls the marine operations of the Port of Ashburton, including all vessel movements, from its VTS centre located at the Port of Dampier.

Pilbara Ports owns and operates multi-user facilities within the Port of Ashburton, including the shipping channel and turning basin, the Ashburton Cargo Wharf (ACW[3]), ACW access channel and turning basin, navigation aids, landside areas, and the Eastern Infrastructure Corridor (EIC) – a dedicated road link which separates the Wheatstone Project from Onslow Salt's operations. Pilbara Ports is also responsible for maintaining navigable depths in the shipping channel and turning basis, ACW access channel and turning basin, as well as the ACW and WMT berths.

The port waters and seabed cover an area of approximately 695 square kilometres and include a range of intertidal and sub-tidal hard and soft-substrate marine habitats. These include wide intertidal sand / mud flats, sandbars, and shoals at the mouth of four small mangrove creeks, macro-algae beds, scattered seagrass patches and some subtidal coral and sponge communities. These habitats support a diverse array of fauna, including shorebirds, turtles, and marine mammals.

The physical marine environment of the Port of Ashburton is characterised by shallow water depths (5 m to 15 m) and moderate tidal ranges resulting in turbid water and low wave energy, except during storm / cyclonic conditions. The Ashburton River delta, a major seasonal river in the region, lies at the south-west corner of the port.

The landside area vested in Pilbara Ports covers a total area of 365 hectares. Approximately 32 hectares of this land is under a long-term lease (exclusively) to Chevron to support the Wheatstone Project, which is now fully operational. The remaining areas include a land-backed wharf, developed laydown areas and several undeveloped areas, some of which are set aside for future development (e.g. the Eastern Port Precinct and Services Corridor).

Mineral Resources Limited (MRL) are currently developing a 220,000-tonne enclosed, negative-pressure storage facility at the Port of Ashburton as part of MRL's Onslow Iron Project. Once complete, Iron will be transferred from the Port of Ashburton via 20,000 tonne transhipping vessels to cape-size carriers that will be moored 40 kilometres off-shore in deep water anchorages. Port waters were extended on 18 March 2024 to include these anchorages.

[3] The Materials Offloading Facility (MOF) constructed by Chevron as part of the Wheatstone Project is formally referred to by Pilbara Ports as the "Ashburton Cargo Wharf (ACW)".

1.2.2 Port of Dampier

The Port of Dampier is located on the western side of Murujuga, the traditional name of the area formerly known as the Burrup Peninsula, on the west Pilbara coastline. It lies approximately 20 kilometres north-west of Karratha (by road), and approximately 1,530 kilometres (by road) north of Perth (Appendix 1B).

The port consists of ten port terminals with four separate navigational channels, which facilitate the export of iron ore, salt, gas products, condensate, anhydrous ammonia, and the transfer of bulk and general cargo. Pilbara Ports is responsible for managing port waters and vessel traffic and operates one of these terminals, which includes two multi-user facilities to support the safe and efficient movement of cargo and bulk liquids (including anhydrous ammonia), namely the Dampier Bulk Liquids Berth (DBLB) and the Dampier Cargo Wharf (DCW). Pilbara Ports is responsible for maintaining navigable depths for this terminal only.

A new Dampier Bulk Handling Facility (DBHF) and Dampier Link Bridge (DBLB) will be built south of the existing DCW and will be supported by a new berth pocket which will be 13.2 metres deep, and a new vessel manoeuvring area, approximately 11 metres deep. The DBHF will berth Supramax and Panamax vessels and support a shiploader and conveyor for the bulk export of urea. The new berths will also accommodate general cargo vessels, cruise ships, as well as vessels supporting the offshore oil and gas industry.

Pilbara Ports manages 153 hectares of land at Murujuga, including developed areas adjacent to its multi-user facilities which are dedicated to landside support infrastructure and services, as well as leases that support port-related industries. Pilbara Ports also operates a VTS centre and maintains office premises for its site-based staff.

The Port of Dampier includes inshore, relatively calm and turbid environments that are sheltered by the 42 islands of the Dampier Archipelago and Murujuga. Offshore areas of the port are influenced by clearer oceanic waters and rougher seas. With its variety of conditions, the port supports a wide range of marine habitat types including mangroves, rocky shores, sand and mud shores, macroalgal communities and coral reefs. Within these habitats there is a high diversity of marine fauna including species of special significance such as migratory humpback whales, migratory shorebirds, and marine turtles.

1.2.3 Port of Port Hedland

The Port of Port Hedland is a single channel port located immediately adjacent to the Port Hedland township, approximately 240 kilometres to the north-east of Karratha (by road), and approximately 1,630 kilometres (by road) north of Perth (Appendix 1C). Pilbara Ports owns and operates four public berths within the port's inner harbour with two additional berths (Lumsden Point) being constructed. There are 15 additional private berths (constructed by other entities under State Agreement Acts or a lease or licence agreement with Pilbara Ports), which facilitate the export of bulk minerals such as iron ore.

Pilbara Ports' public berths facilitate the trade of bulk minerals (iron ore, manganese, salt, lithium, and copper concentrate), petroleum products, ammonium nitrate, bulk liquids, general cargo, containerised cargo and livestock. Pilbara Ports controls the marine operations of the Port of Port Hedland, including all vessel movements, from its VTS centre within the Hedland Tower at the Eastern Operations site. Pilbara Ports also maintains office premises for its site-based staff at this location and at the Utah Facility. Pilbara Ports is responsible for maintaining navigable depths in the channel and inner harbour.

The development of additional berths at Lumsden Point will facilitate the export of battery metals such as lithium and copper concentrates, the import of renewable energy infrastructure including wind turbines and blades, as well as support the growth of direct shipping services to the Pilbara. The ultimate Lumsden Point development will include the construction of two new multi-user berths, and a central access road and service corridor connecting to Great Northern Highway, enabling private sector investment in a landside logistics hub.

Pilbara Ports manages approximately 5,500 hectares of lands[4] including land in the west end of the Port Hedland township, an area of land surrounding the inner harbour, land in Redbank and the Wedgefield industrial estates and Boodarie Stockyard 2. Most of these *Land Administration Act 1997* reserves managed by Pilbara Ports are vested under the *Port Authorities Act 1999*. There are also several Dredged Material Management Areas (DMMA) south of the inner harbour and adjacent to South Creek and South-East Creek, which are managed by proponents and Pilbara Ports. Pilbara Ports also leases port land to major proponents BHP, FMG and Roy Hill under commercial agreements.

In total the port covers approximately 1,268 square kilometres of open waters, complex estuarine and creek habitats, sandy islands, mudflats, and beaches, all of which are sensitive ecosystems and have considerable environmental value. Mangroves and coral communities are the dominant marine habitats within port waters, supporting a high diversity of seabirds, turtles, and marine mammals.

[4] Includes Port lands within Reserves 29082, 50399, 50528, 50892 and 54251.

1.2.4 Port of Varanus Island

The Port of Varanus Island transitioned from the Department of Transport (DoT) to Pilbara Ports on 1 July 2021, under the *Ports Legislation Amendment Act 2019* (WA). The port area managed by Pilbara Ports' under the *Port Authorities Act 1999* comprises seabed and waters (approximately 8,882 hectares). The port is located approximately 120 kilometres west of Dampier and will continue to be used by Santos to support its Varanus Island gas and oil hub. Varanus Island is the largest of the Lowendal Islands and is used as a central gathering and processing hub for oil, gas and condensate supplied by nearby fields. After processing, sales gas is transported via two 100-kilometre pipelines to the mainland for on sale to mining and industrial customers, while oil and condensate are stored on the island for export via product tankers.

1.2.5 Port of Cape Preston West

The Port of Cape Preston West was vested to Pilbara Ports on 2 December 2022 as a multi-user port. The Port is located approximately 135 kilometres by road south-west of the Karratha, 217 kilometres by road north-east of Onslow, and 50 kilometres to the southwest of the existing Port of Cape Preston.

Mardie Minerals, a wholly owned subsidiary of BCI Minerals Limited, is developing the Port, with Pilbara Ports granting Development Approval on 16 December 2021 and initial Construction Approval on 1 February 2023. The Port is expected to be completed and operational by November 2024. Mardie will export salt and potash from the port via a 2.5-kilometre-long purpose-built jetty with trans-shipment capabilities.

1.2.6 Greenfield ports

Pilbara Ports is also pursuing several greenfield sites as future ports. Each of the greenfield port developments are at different stages of planning, land assembly and development:

Tenure	Greenfield port development
Sites where Pilbara Ports holds a form of land tenure, which has been granted under the *Land Administration Act 1997* and/or declaration under the *Port Authorities Act 1999*.	• Port of Cape Preston West • Proposed Port of Cape Preston East • Port of Balla Balla
A planned port for which the future port tenure has been reserved by the State.	• Proposed Port of Anketell
A proposed port currently being discussed with a project proponent but for which there is no land tenure held by Pilbara Ports.	• Proposed Port at the location of Urala

Details of secured land tenure associated with the greenfield port developments of Cape Preston East and Balla Balla are summarised below:

(a) Proposed Port of Cape Preston East

Cape Preston East (CPE) is located approximately 60 kilometres south-west of Karratha and two kilometres north-east of CITIC-Pacific's Sino Iron Project export facilities at Cape Preston (Appendix 1D).

In 2008, the CPE land area (6,147 hectares) was earmarked by the State Government for the development of a future multi-user export port. This was later achieved through amendments made to the *Iron Ore Processing (Mineralogy Pty Ltd) Act 2002* (Mineralogy State Agreement Act), which provided for the relinquishment of land by Mineralogy Pty Ltd to the State.

In May 2017, a reserve "for port purposes" was created over the CPE land and seabed areas (8,475 hectares) with a Management Order in favour of Pilbara Ports.

The State of WA is currently reviewing the size of the Port Reserves with the intent to reduce the extent.

The CPE land area is largely undeveloped, however grazing from cattle and clearing for tracks and pastoral activity has occurred across some areas. A road, causeway and bridge were constructed in the north-western portion of the CPE land area in 2010 by CITIC-Pacific as part of the Sino Iron Project (refer to 'Area D' in Appendix 1D). These will become common user infrastructure facilitating access to both the Sino Iron Project export facilities and the Cape Preston East facilities.

The port waters for the proposed Port of Cape Preston East will be created over State waters and a portion of the existing Port of Cape Preston waters that will be excised to facilitate transhipping routes, anchorages, and the construction of marine infrastructure.

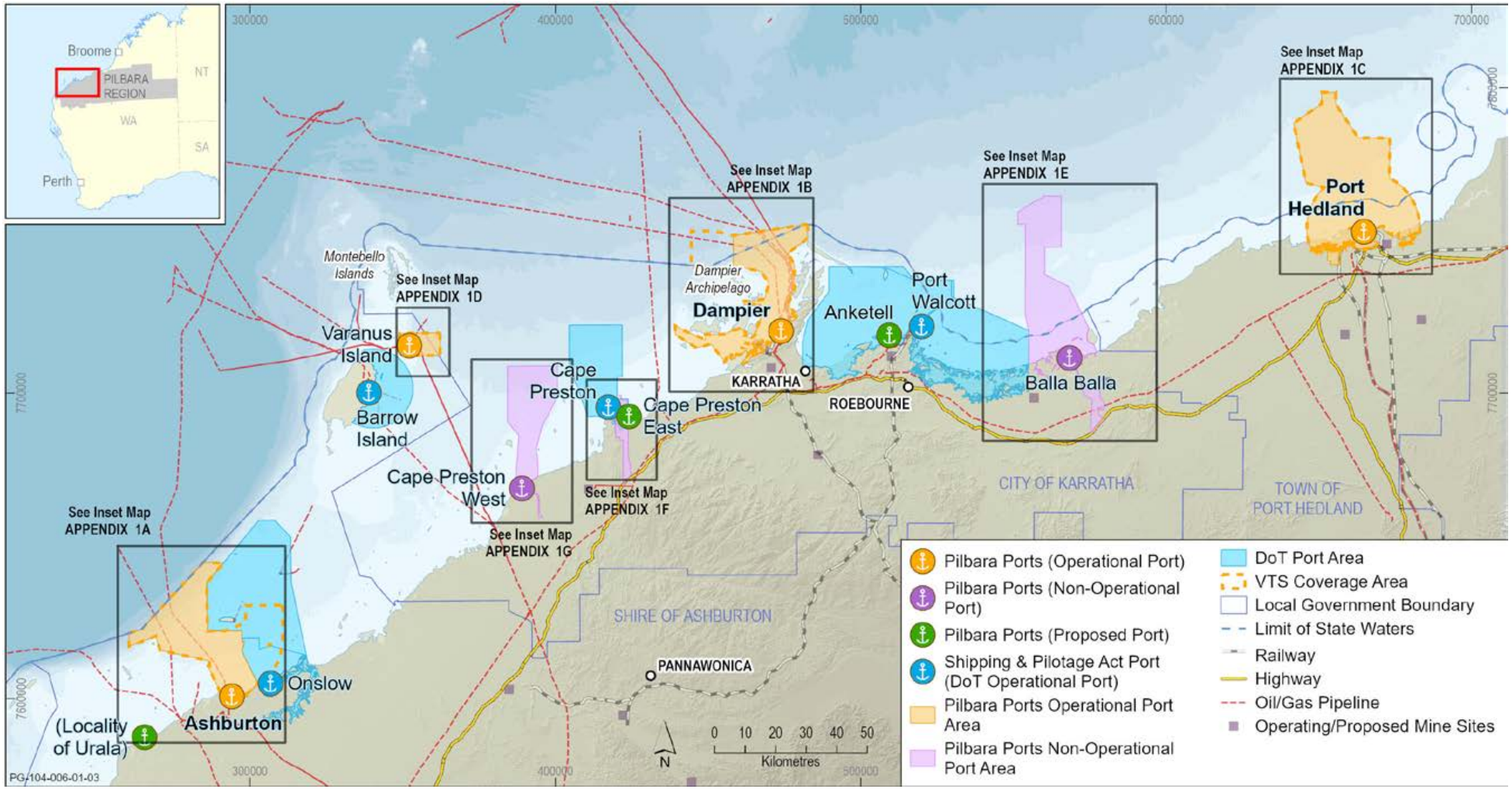
(b) Port of Balla Balla

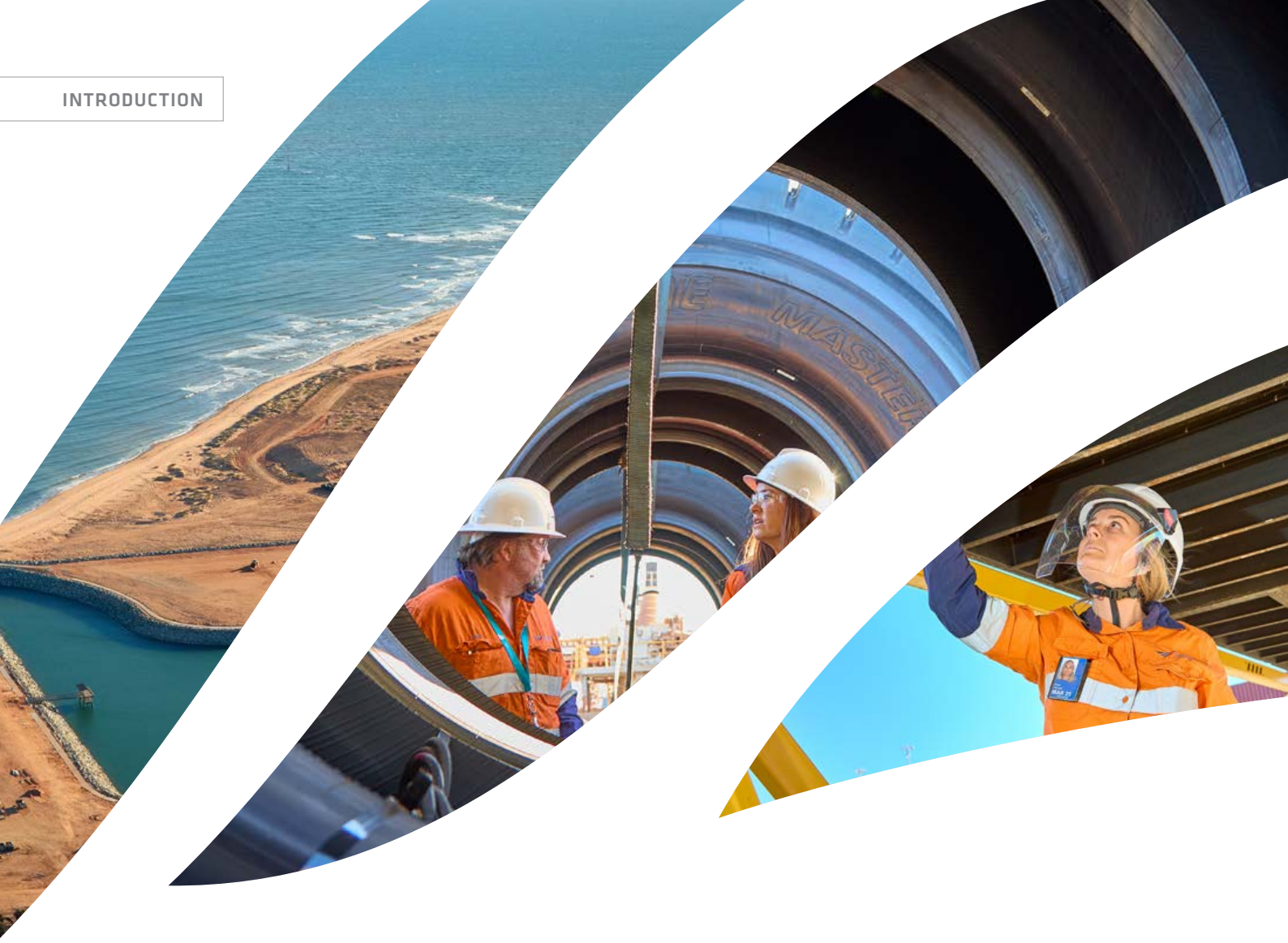
The Port of Balla Balla was originally proclaimed in October 2017 and the port boundary was re-declared in December 2020 to include all of the Port's land areas. It is located approximately 150 kilometres east of Karratha and 160 kilometres south-west of Port Hedland.

It is envisaged that the port will be developed as a multi-user bulk commodities trans-shipment port servicing the East Pilbara area (Appendix 1E). The port encompasses 5,342 hectares of land, 19,676 hectares of seabed and 71,389 hectares of waters. The State Government enacted the *Railway (BBI Rail Aus Pty Ltd) Agreement Act 2017* for the Balla Balla Infrastructure project in December 2017. State and Commonwealth environmental approvals to construct and operate a multi-user transhipping iron ore export facility at Balla Balla have been secured by the foundation proponent.

The locations of Ports along the Pilbara coastline, including those vested to and proposed by Pilbara Ports, are shown in Figure 1-1.

Figure 1-1: Ports along the Pilbara coastline, including those vested to, and proposed by Pilbara Ports.





1.3 Pilbara Ports' role – environmental management

Pilbara Ports' Strategic Framework (Section 2.1), identifies strategic success factors, approaches and measures of success that relate to all areas of the business, including environmental management.

Key strategic approaches relevant to this EMP include:

- Good governance embedded across the organisation including risk management.
- Best practice systems, processes and training benchmarked against the global industry.
- Manage risks to minimise impacts to our Ports' environment and cultural heritage values, natural resources, and surrounding communities, from port development, marine services, and operations.

In delivering this EMP, Pilbara Ports' aims to achieve best practice standards in environmental management across its port services and activities, including the certification of the IMS to the *ISO 14001:2015 Environmental Management System* standard.

Overarching environmental management of ports is determined by a range of State and Commonwealth legislation, including the *Environmental Protection Act 1986*, which is administered by the Western Australian Environmental Protection Authority (EPA). Pilbara Ports and its lessees, licensees, service providers, contractors and other port users are all required to comply with the *Environmental Protection Act 1986* (WA). This is recognised within the *Port Authorities Act 1999*, which states:

"*Nothing in this Act limits or otherwise affects the operation of the* Environmental Protection Act 1986 *in relation to a port, a port authority or port operations*."[5]

This EMP is updated annually to ensure information remains current.

[5] Section 31 of the *Port Authorities Act 1999* (WA).

CONTEXT OF THE ORGANISATION

02

Context of the organisation

2.1 Understanding the context - strategic planning

Pilbara Ports implements an annual strategic planning process to set strategic business direction in the long, medium, and short-term. The process recognises that strategy is a two-way street, both top down and bottom up.

At the top sits Pilbara Ports' Strategic Framework that sets out the vision, values, and success areas. The framework is divided into four pillars:

People and Culture

Resilience and Prosperity

Partnerships

Planet

The Strategy is enacted via Pilbara Ports' Key Deliverables and Priorities, and team business plans.

Pilbara Ports also develops several other planning documents and submits them to the Minister for Transport and Treasurer for approval. They are the Statement of Expectation and Annual Performance Statement.

2.2 Understanding the needs and expectations of stakeholders

Pilbara Ports interacts across a large geographic area with stakeholders who have differing needs and areas of interest. These stakeholders can include elected government representatives, government agencies, customers, port users, community, business / industrial, media and Pilbara Ports staff. Each business area is required to conduct stakeholder identification and planning as part of Pilbara Ports strategic planning process.

2.3 Scope of the environmental management plan

The EMP scope includes all port services and activities for which Pilbara Ports has a level of environmental responsibility, or operational control. In the context of this EMP, there are three levels of operational control that define the scope of Pilbara Ports' responsibilities:

- **Direct operational control**
  Where Pilbara Ports has full operational control of a facility or project, the direct environmental responsibility lies with Pilbara Ports. For example, where Pilbara Ports (as the principal or operator) is constructing a facility using directly engaged contractors, Pilbara Ports will be responsible for compliance with regulation as a minimum (e.g. obtaining and complying with environmental approvals, licenses, permits etc.);
- **Commercial control**
  Where Pilbara Ports enters into a commercial agreement (e.g. lease and licenses) allowing another party to carry out activities on port vested lands, seabed, or water areas. Under a commercial agreement, Pilbara Ports will condition port users to ensure compliance with the necessary environment and heritage regulations and have the necessary management plans in place to manage risks, as a minimum. An example of this arrangement would be an organisation which has a lease over Pilbara Ports land and undertakes a business activity on that leased land. The lessee must hold an Operational Environmental Management Plan and all the appropriate statutory approvals to undertake the activity; and
- **Neighbouring relationships**
  Where an operation is undertaken within or immediately adjacent to port land, waters, or seabed but where no legal agreements associated with the operation exists between Pilbara Ports and that operation. For example, operations on adjacent State Agreement land that may contribute to cumulative environmental impact within port land, waters, or seabed. In this instance, Pilbara Ports seeks to work with or influence the behaviour of the operator to strive for sound environmental and heritage outcomes. Pilbara Ports does not hold any environmental approvals for such an operator and is not involved with ensuring compliance. Pilbara Ports has no ability to direct or control the environmental performance of the operator outside the processes available under the *Environmental Protection Act 1986 (WA)*.

The scope of this EMP includes all areas where Pilbara Ports has direct operational control and all activities under Pilbara Ports' commercial and/or neighbouring relationships that may pose a risk to the environment of the ports. This includes cumulative environmental impacts, which are not managed through Pilbara Ports' development assessment and approvals process and/or through direct State or Commonwealth requirements as part of environmental approvals or licenses.

Cultural heritage features and values are an important and prominent aspect of the ports' operating environments. Cultural heritage is an integral part of environmental management in the EMP and within the IMS. In order to achieve Pilbara Ports' objective of the sustainable and respectful management of the cultural heritage values that occur within its land and waters, Pilbara Ports has developed and implemented its Cultural Heritage Strategy. Available on Pilbara Ports' website, the Cultural Heritage Strategy identifies the key systems and processes utilised by Pilbara Ports to ensure the cultural heritage values that occur within Port lands and waters are appropriately managed.

A key feature of Pilbara Ports' Cultural Heritage Strategy is the Cultural Heritage Management Plan (CHMP). The CHMP enables Pilbara Ports to operate in areas containing cultural heritage values by identifying processes and strategies to avoid and protect those cultural heritage values or mitigate impacts where they are unable to be avoided. The CHMP is subject to biennial reviews, undertaken in consultation with a range of stakeholders, including Traditional Owner groups, and is available on the website.

The CHMP provides for consultation and engagement with the Aboriginal community and statutory regulators to ensure Pilbara Ports undertakes development and operational activities in compliance with heritage legislation. The CHMP also considers non-Aboriginal cultural heritage values that may be encountered on port land or within port waters (e.g. historic structures, shipwrecks).

> Under a commercial agreement, Pilbara Ports will condition port users to ensure compliance with the necessary environment and heritage regulations and have the necessary management plans in place to manage risks, as a minimum.

Pilbara Ports also maintains an Aboriginal Engagement and Reconciliation Plan, which outlines the wide range of actions, initiatives and opportunities to advance engagement and reconciliation with Aboriginal and Torres Strait Islander peoples. The Aboriginal Engagement and Reconciliation Plan also details Pilbara Ports past achievements and presents Pilbara Ports commitment to active engagement and reconciliation with the Aboriginal community over the coming years. Subject to annual review, the Aboriginal Engagement and Reconciliation Plan is also available on the website.

As a Government Trading Enterprise, Pilbara Ports may from time to time be engaged by government to take a leading role in developments or activities beyond the normal remit of a port authority. Two such areas in which Pilbara Ports will be engaged during the term of this EMP will be:

Port Hedland Spoilbank Marina development

Pilbara Ports is delivering the Port Hedland Spoilbank Marina project. Project activities which are likely to impact environmental or heritage values during construction are being managed under site-specific management plans, consistent with the processes and procedures embedded within the IMS. The Western Australian Government has decided that responsibility for the ownership and operation of the Spoilbank Marina shall sit with the Department of Transport (DoT). The substantial commencement of operation of the marina is expected to be in late 2024, which coincides with the anticipated completion of construction of the landside areas. Pilbara Ports is working with DoT to hand over operational responsibility for the marina. As such, the ongoing operational control of the Spoilbank Marina has not been included within the scope of this EMP.

Port Hedland Voluntary Buy-Back Scheme

In 2020, a wholly owned subsidiary of Pilbara Ports – Hedland Maritime Initiative Pty Ltd (HMI) – was tasked with the responsibility of administering a scheme – the Port Hedland Voluntary Buy-Back Scheme – to voluntarily buy-back residential dwellings within the West End precinct (as part of the State Government's implementation of the Port Hedland Dust and Noise Management Taskforce Report).

LEADERSHIP AND COMMITMENT

03

Leadership and commitment

3.1 Environment and Cultural Heritage Policy

Pilbara Ports' *Environment and Cultural Heritage Policy* establishes a commitment to deliver its services and activities in an environmentally sustainable and responsible manner. The policy is reviewed every 24 months by Pilbara Ports' Executive Committee and approved by the Board. The policy is communicated via the site induction process, is displayed in all Pilbara Ports' workplaces and can be accessed via the website.

3.2 Organisational roles, responsibilities and authorities

All staff, contractors, and other positions under the direct control of Pilbara Ports have a general duty under the *Environmental Protection Act 1986* (WA) to:

- not cause or allow serious environmental harm or material environmental harm; or
- not intentionally or otherwise, cause pollution or an unreasonable emission from any premises.

An overview of the organisational roles, responsibilities, and authorities at key levels within Pilbara Ports is displayed in Table 2.1. These are further documented in site induction packages for site personnel and staff and in operational plans/procedures. This may include the requirement for staff or contractors to implement operational controls, TAPs, monitoring and management programs, or other administrative controls.

Table 2-1: Outline of key roles and their environmental responsibilities within Pilbara Ports

Role	Responsibility
Board of Directors	Under section 11 (2) of the GTE Act, the Board is Pilbara Ports' governing body with authority, in Pilbara Ports' name, to perform the functions, determine the policies and control the affairs of the port authority. As such, the Board is responsible for determining and endorsing the *Environment and Cultural Heritage Policy*.
Executive Committee Chief Executive Officer Chief Financial Officer EGM Safety, People & Environment EGM Marine EGM Terminal Operations EGM Customer and Strategy EGM Major Projects & Engineering EGM Technology EGM Planning & Property Head of Corporate Affairs	Members of the Executive Committee are responsible for ensuring environmental stewardship and accountability within their specific function. Specifically, the CEO is responsible for leading the culture of the organisation regarding environmental stewardship. The CEO delegates responsibility for various risk mitigation initiatives and approves resources in consultation with the General Managers. The Executive Committee are responsible for annual workforce planning to ensure adequate resources and budget are available for the implementation of the IMS.
EGM Safety, People & Environment	The Executive General Manager Safety, People, and Environment has overall accountability for environmental compliance and performance from a governance perspective.
Harbour Masters	Harbour Masters are chiefly responsible for ensuring the safe and efficient movement of vessels through the ports and ensuring those vessels and their associated activities are undertaken with minimal impact to the ports' marine environment. Harbour Masters also undertake a key role as Incident Controller in the event of a port marine oil pollution emergency.
Director Environment and Heritage	The Director Environment and Heritage has overall responsibility for the coordination of the environmental management in accordance with the requirements of AS/NZS ISO 14001:2015. This includes the development of the EMP, reporting on IMS performance and providing recommendations for continual improvement to the Executive Committee for review. The Director Environment and Heritage must ensure significant environmental risks and their controls are identified and being managed by appropriate roles or functional area within the organisation.
Environment and Heritage team	The Environment and Heritage team have the responsibility to implement the EMP and monitor and report on performance of the IMS, including environmental TAPs and objectives.
Pilbara Ports employees	Pilbara Ports employees are required to adhere to this EMP and contribute to developing and implementing TAPs for significant environment aspects that are applicable to their work area.
Pilbara Ports contractors / service providers	Contractors and service providers are required to adhere to the EMP when operating on behalf of or directly for Pilbara Ports.
Lessees / licensees	Lessees and licensees must adhere to the conditions in their commercial agreements with Pilbara Ports to ensure the environmental impacts from their activities are managed. They must also abide by environment and heritage legislation.

PLANNING

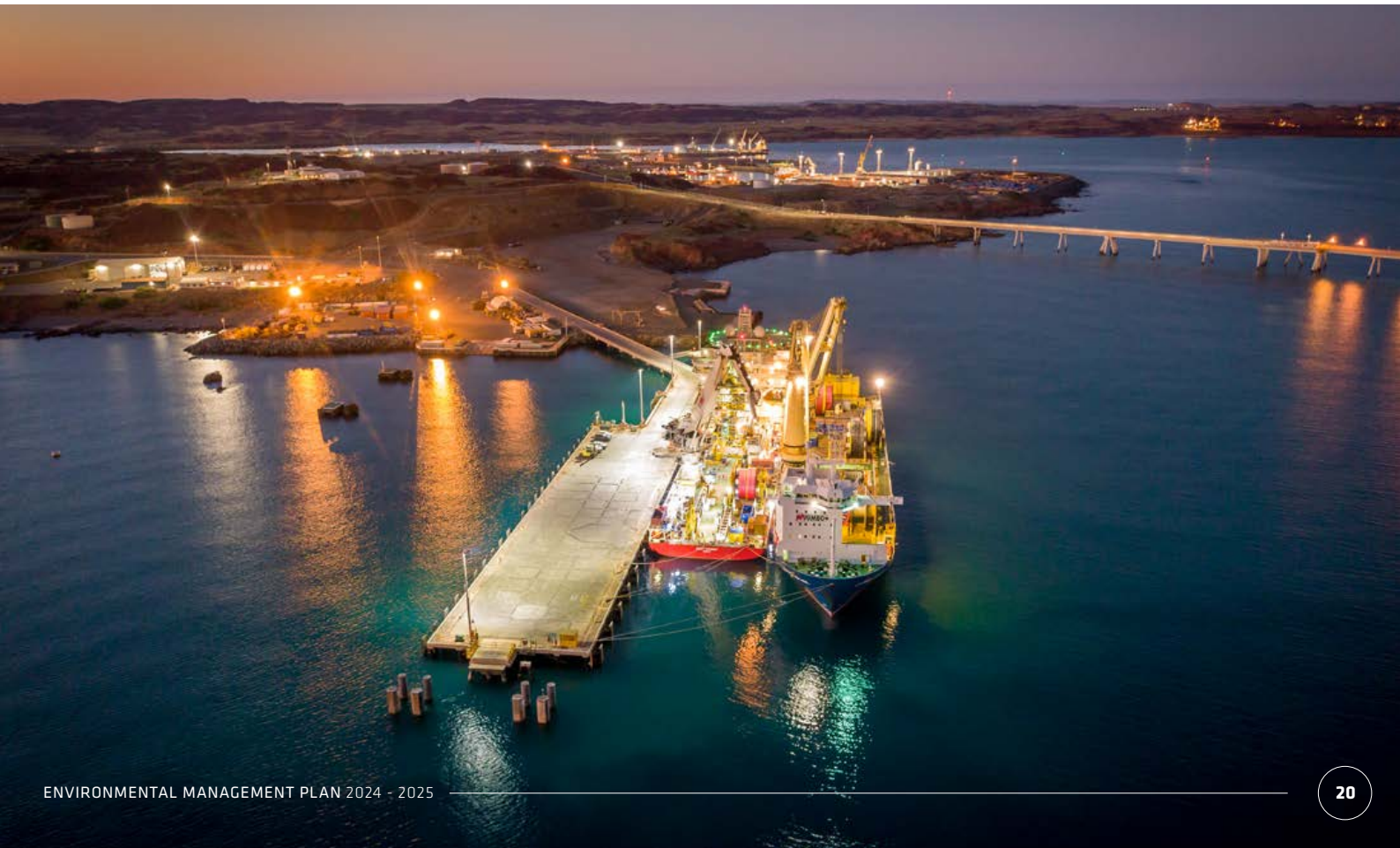
04

Planning

Pilbara Ports' process for planning the development of this annual EMP and associated maintenance of the IMS in accordance with ISO14001:2015 is informed by:

- the internal and external environmental issues that may have a direct influence on the effectiveness of Pilbara Ports achieving the intended outcomes of its IMS (Section 2.1);
- the needs and expectations of internal and external stakeholders (Section 2.2);
- the current scope of Pilbara Ports' services and activities within the context of the IMS (Section 2.3);
- the contents of Pilbara Ports' Sustainability Strategy; and
- the risks and opportunities related to its legal and other requirements, environmental aspects and other issues and requirements that need to be addressed (Sections 4.1 and 4.2).

Pilbara Ports' robust planning process gives assurance that the EMP will achieve its intended outcomes, prevent or reduce undesired effects or environmental harm, and achieve continual improvement.



4.1 Legal and other requirements

A range of State and Commonwealth environment and heritage legislation is relevant to delivering Pilbara Ports services, operations, and development at its ports. Some of this legislation requires Pilbara Ports to hold specific statutory approvals, for example:

- ***Environmental Protection Act 1986* (WA)**
  An Act to provide for an Environmental Protection Authority for "the prevention, control and abatement of pollution and environmental harm, for the conservation, preservation, protection, enhancement and management of the environment and for matters incidental to or connected with the foregoing". Two key types of statutory approval issued under this legislation include:
  - **Part IV**
    The Environmental Protection Authority (Authority) is responsible for environmental impact assessment of proposals under Part IV of this legislation. Certain developments led by Pilbara Ports can trigger the requirement for referral of the proposal to the Authority for an environmental impact assessment and approval. Pilbara Ports currently holds a range of Part IV approvals across its operational port locations.
  - **Part V**
    The Department of Water and Environmental Regulation (DWER) regulates industrial emissions and discharges to the environment through a works approval and licensing process under Part V of this legislation. Pilbara Ports is the licensee for the export of bulk minerals from the Utah Facility and East Side operations at the Port of Port Hedland.
- ***Aboriginal Heritage Act 1972* (WA)**
  The *Aboriginal Cultural Heritage Act 2021* (WA) that came into force on 1 July 2023 was repealed shortly afterwards by the Western Australian State Government and replaced with an amended version of the *Aboriginal Heritage Act 1972* on 15 November 2023. The revised legislation includes provisions for new information on heritage values allowing the Minister to amend a section 18 consent (add or change conditions), provides recognised Native Title Parties the right to appeal decisions to the State Administrative Tribunal, and allows the Premier to direct this body with regard to projects of State Significance.
- ***Environment Protection (Sea Dumping) Act 1981* (Cth)**
  The loading and placement of dredged material at sea is regulated under this legislation. Pilbara Ports is required to apply for a sea dumping permit for dredging activities in its ports, where dredged material is to be placed at sea. Pilbara Ports currently holds a 5-year Sea Dumping Permit for maintenance dredging in each of its operational ports in Ashburton, Dampier, and Port Hedland.
- ***Environment Protection Biodiversity Conservation Act 1999* (Cth)**
  An Act to provide for the protection and management of the environment especially those aspects that are matters of national environmental significance. Development by Pilbara Ports in its current and future ports can trigger a formal referral, environmental assessment and approval issued under this legislation. Pilbara Ports currently holds a range of approvals under this legislation across its operational ports in Dampier and Port Hedland.

Pilbara Ports' compliance program is designed to assist the organisation to meet its legal and other regulatory requirements and reduce the risk of any legislative breach, as well as providing a framework for compliance with relevant laws, industry codes and organisational policy. The program is delivered through the implementation of Pilbara Ports' *Compliance Policy*, and *Compliance Management Manual*. In an operational port context, Pilbara Ports' legal and other requirements can include:

- **Regulatory obligations**
  For example, requirements under State and Commonwealth environment and cultural heritage legislation and the statutory approvals issued to Pilbara Ports under this legislation; and
- **Voluntary commitments**
  For example, a commitment to meeting industry standards, codes of practice, or the requirements of community agreements.

4.2 Addressing environmental risks and opportunities

Pilbara Ports applies a consistent, enterprise-wide approach to the management of risk across the delivery of its services and activities.

The Risk Management Procedure provides the framework for determining how Pilbara Ports' risks and opportunities are identified, assessed, treated, monitored, reviewed, and reported within the business. The framework for risk and opportunity management described in these documents is consistent with the requirements of the *ISO14001:2015 Environmental Management System* standard.

4.2.1 Environment Risks and Opportunities Register

Pilbara Ports *Environment Risks and Opportunities Register* is the foundation of this annual EMP on which continual improvement and management reviews are based. This Register is the product of risk and opportunities reviews (as prompted by the *Risk Management Procedure*). Pilbara Ports currently monitors and manages a range of environmental risks within this Register.

Each environmental risk consists of an environmental *aspect* and potential *impact*:

- An **aspect** is defined as an element of Pilbara Ports services and activities that can interact with the environment. It may be thought of as an input or source of risk.
- An **impact** is defined as any potential change to the environment, whether adverse (threat) or beneficial (opportunity), wholly or partially resulting from Pilbara Ports' services or activities. An impact may also be referred to as the consequence or effect as it is a result of a corresponding environmental aspect.

For each environmental aspect identified in the Environmental Risks and Opportunities Register, a qualitative assessment of the plausible maximum consequence and likelihood (based on control effectiveness, relevant history of events and professional experience) are used to determine a residual risk rating via a 'five by five' risk matrix. Opportunities or potential beneficial effects are identified and noted (where applicable).

Table 3.1 presents key examples of environmental aspects taken directly from Pilbara Ports' Environmental Risks and Opportunities Register, which are grouped into eight environmental management themes.

Table 3-1: Overview of Pilbara Ports' environmental themes and associated environmental aspects

Theme	Examples of environmental aspects
Ambient air quality	Fugitive dust emissions and port air emissions (including shipping emissions).
Biodiversity & habitats	Invasive Species (Feral Animals, Insects, and other invertebrates); Invasive Species (Weeds); Invasive Species (marine pests).
Biosecurity	Invasive Species (Feral Animals, Insects and other invertebrates); Invasive Species (Weeds); Invasive Species (marine pests).
Cultural heritage	Management of Aboriginal, historical, and maritime cultural heritage values.
Land & seabed	Management of contaminated lands, land use and development within the ports, and contamination of marine sediments.
Noise	Noise emissions, which includes vibration of any frequency, whether transmitted through air or any other physical medium.
Waste	Management of wastes, including hazardous, mineral, recyclable and general waste streams.
Water	Quality of marine waters, groundwater and stormwater, usage of potable water, and generation of wastewaters.

Pilbara Ports currently implements a range of environmental initiatives that were borne out of Risks and Opportunities assessments. Examples of these include:

- **Annual community environment and cultural heritage event**
  Pilbara Ports partners with Murujuga Aboriginal Corporation and local industry to host a free annual environment and cultural heritage event for the local community within the Murujuga National Park. Through this initiative Pilbara Ports and local industry stakeholders have helped to create an ongoing sustainable platform for future annual events to showcase the unique cultural and environmental landscape of Murujuga National Park.
- **Osprey nesting platforms**
  Ospreys are known to nest on artificial structures and have previously used the port's channel markers/ navigational aids to build their nests on. As part of the Channel Marker Replacement Program Pilbara Ports identified an opportunity to increase the number of Osprey nesting platforms on these navigational aids from three to five to support additional nesting activity. The nesting platforms are designed to allow Ospreys to build their nest above the navigational equipment away from human interactions and disturbance.
- **Collaborative industry pest management programs**
  Pilbara Ports implements collaborative pest management programs which aim to coordinate the timing of the feral animal control efforts across industry stakeholders. By collaboratively implementing these programs, the efficacy of feral trapping efforts is improved, and this assists the long-term survival of affected native species and associated ecological communities (including nesting marine turtles).
- **State-Wide Array Surveillance Program (SWASP)**
  Pilbara Ports implements the SWASP at its operational ports in Ashburton, Dampier, and Port Hedland, in collaboration with Department of Primary Industries and Regional Development (DPIRD) and port industry stakeholders. The program uses a system based primarily on passive settlement arrays for the early detection of Introduced Marine Pests (IMP). Marine growth samples collected from the arrays are processed by DPIRD using molecular techniques to identify the presence of IMP. Over ten years this program has grown from three to twelve WA Ports spanning over 11,000 km from the tropical north to temperate south of WA. The SWASP program has proven to be a very effective tool for IMP surveillance and, importantly, as a means of stakeholder involvement.

4.2.2 Significant environmental risks

Significant environmental risks have the same meaning as 'Material Risks' in accordance with Pilbara Ports' Risk Management Procedure, being any environmental risk with:

- a Residual Risk Rating of 'High' or 'Extreme'; and/or
- Plausible Maximum Consequence rating of 'High' or 'Catastrophic'.

Where the Risk Owner assesses that a Significant Environmental Risk is not "Adequate" through a scheduled review or as a result of an incident, the development of Treatment Action Plans (TAPs) is mandatory. Each TAP must have an accountable owner and completion date which is reflective of the level of risk exposure and action scope. Pilbara Ports' Environment and Heritage team support reviews of environmental risks with the relevant Risk Owners, the outcomes of which inform the annual review and update of this EMP.

No significant environmental risks were identified from the risk reviews and workshops that informed this EMP.

4.3 Priority Environmental Management Areas (2024-25)

During the assessment of Pilbara Ports' risks and opportunities (Section 4.2.1), 14 risks were identified as having a 'moderate' risk ranking.

Two of these risks are considered Priority Environmental Management Areas for its operational ports during FY2024-25; namely, dust management and legacy site contamination. Priority Environmental Management Areas are those risks that have clear, continual improvement actions defined with the aim of achieving best practice standards and continually improving Pilbara Ports' environmental management and performance in these areas. The remaining environmental risk areas are considered adequately managed under existing Pilbara Ports procedures and environmental control mechanisms.

4.3.1 Dust – Port Hedland operations

Pilbara Ports operates four of the Port of Port Hedland's 19 berths, which include the Utah Point Multi-User Bulk Handling Facility (Utah Facility) and three berths on the Eastern side of the inner harbour (Eastern Operations). These facilities provide junior and mid-tier mining companies with access to port facilities for the export of bulk materials (such as iron ore, other ores and metal concentrates). Although tonnage through these four public berths represents less than five per cent of total throughput at the Port of Port Hedland, monitoring, and minimising dust emissions from Pilbara Ports' Port Hedland operations is a key focus.

In May 2021, DWER published the Port Hedland Regulatory Strategy, which was developed in direct response to the State Government endorsed recommendations of the Port Hedland Dust Management Taskforce. The Strategy includes the implementation of a Dust Management Program, which has both short-term and medium-term strategies to address dust emissions from premises licensed by DWER under the *EP Act*.

A key short-term strategy under the Port Hedland Regulatory Strategy is the development and implementation of the Dust Management Guideline. The Dust Management Guideline is expected to establish clear expectations and define the ongoing management of dust emissions for port operators which are licensed under the EP Act, including BHP, FMG, Roy Hill and Pilbara Ports (Utah Facility and Eastern Operations).

It is expected that DWER will finalise and implement the Dust Management Guideline during FY2024-25.

4.3.2 Legacy site contamination

Pilbara Ports' vested lands in Dampier and Port Hedland are mostly leased by proponents and businesses conducting port related activities, including supply base operations that support the offshore oil and gas, and bulk mineral export industries. Some of these lands have been classified under the *Contaminated Sites Act 2003* as "Possibly Contaminated – Investigation Required" (e.g. Port of Dampier Lot 471) and "Contamination – Remediation Required" (e.g. Port of Port Hedland Lot 400, formerly referred to as Lot 6098). The following actions are to be undertaken by Pilbara Ports to address historical contamination at these sites:

Port Hedland

- Implement site contamination investigations across all leases within Lot 400 (Eastern Operations) as sites become available and implement Lot 400 way forward for contaminated site management;
- Progress Lot 64 (Wedgefield) site illegal dumping clean-up and complete site environmental investigations; and

Dampier

- Update Conceptual Site Model for Lot 471 with information from recent assessments of Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) in groundwater and outcomes of the Remedial Action Plan and associated Detailed Site Investigation for Lease Area 6.

4.4 Sustainability Strategy

Pilbara Ports' Sustainability Strategy is centred around four sustainability themes – People and Culture, Prosperity and Resilience, and Partnerships – which are aligned with the pillars of the Strategic Framework and Plan.

The Sustainability Strategy is consistent with the 2030 Agenda for Sustainable Development, adopted by the United Nations Member States in 2015, which "provides a shared blueprint for peace and prosperity for people and the planet, now and into the future" with the development 17 agreed Sustainable Development Goals (UN General Assembly, 2015[6]).

Under Pilbara Ports Sustainability Framework, the material issues are to be reviewed every two years to ensure they remain current and relevant to the expectations of internal and external stakeholders. This review was undertaken in early 2023 and led to an update on the list of material focus areas.

Through a series of workshops held with internal stakeholders, 11 material focus areas were identified For each focus area, a steward was identified who was tasked with working with other stakeholders to identify key initiatives for each of the material issues.

As part of the WA Government's Climate Policy of achieving net-zero greenhouse gas emissions by 2050, all Government agencies, including Government Trading Enterprises, are required to develop a Net Zero 2050 Transition Plan. To support this Policy, a 2030 greenhouse gas emissions reduction target of 80 per cent below 2020 levels has been set. The first stage of Pilbara Ports Net Zero Transition Plan has identified Pilbara Ports emission sources, along with initiatives to reduce these emissions. These initiatives will undergo a thorough assessment before being integrated into the business. The second stage of Pilbara Ports' Net Zero Transition Plan is a Feasibility Assessment, which was completed in 2024.

4.5 Environmental objectives

In accordance with Pilbara Ports *Environment and Cultural Heritage Policy*, Pilbara Ports has established several high-level environmental management objectives.

Pilbara Ports environmental objectives for 2024-2025 are displayed in Table 4-1. An objective is set for specific monitoring and management programs under each environmental management 'theme' (refer to Section 4.2.1 of this EMP and Table 3-1).

Environmental management objectives have been developed with consideration of Pilbara Ports':

- Environment and Cultural Heritage Policy;
- legal and other requirements;
- significant environmental risks and priority environmental management areas (Table 4-1);
- strategic objectives;
- Environmental issues identified through six-monthly review of incidents, hazards, inspections and monitoring outcomes;
- annual review outcomes for significant environmental risks with the relevant Risk Owners; and
- engagement with interested parties, both internal and external.

Table 4-1 also lists the key strategies, programs and plans being implemented by Pilbara Ports to achieve each relevant environmental management objective.

[6] UN General Assembly, *Transforming our world: the 2030 Agenda for Sustainable Development*, 21 October 2015, A/RES/70/1, available at: https://www.refworld.org/docid/57b6e3e44.html [accessed 27 May 2021]

Table 4-1: Overview of Pilbara Ports environmental management themes, environmental objectives 2024-2025 and associated programs, strategies and plans.

Theme	Objectives	Key program / strategy / plan
Ambient air quality	**Dust:** Minimise the potential for fugitive dust emissions from Pilbara Ports bulk ore handling operations (East Side and Utah Point) and impacts to sensitive receptors in Port Hedland, including the community and environment.	• Air Quality Monitoring and Management and Reporting Program
Biodiversity and habitats	**Coastal Processes:** Implement the Coastal Processes Monitoring and Management to ensure the operation of Pilbara Ports' nearshore marine facilities at the Port of Ashburton achieves the outcomes (as far as is practicable) under the Plan **Industry Litter:** To reduce litter on roadside areas where workers commute to and from ports, by targeting the behaviours that drive littering from vehicles and implementing regular roadside clean-ups. **Mangrove (Mates):** Educate and inspire further learning about mangroves in primary school age children within the communities in which Pilbara Ports operates. **Mangrove (Monitoring):** Set baseline and establish understanding of long-term trends in health and extent of mangrove communities within our ports. **Mangrove (Nursery):** Maintain functional mangrove nursery to support rehabilitation projects within the Pilbara coastal environment. **Vertebrate Pests:** Proactively manage (control) vertebrate pest populations and (where possible) coordinate the timing of the management efforts at our ports with industry and local government, to protect native fauna from predation, including nesting turtle populations. **Weeds:** Manage priority weed species across Port Lands in Ashburton, Dampier, and Port Hedland, through an integrated risk-based approach of weed control, hygiene, and prevention.	• Coastal Processes Monitoring and Management Plan • Port / Industry Community Litter Initiatives • Mangrove Program • Biosecurity Management Program (First Point of Entry) • Vertebrate Pest Program • Weed Management Plan • Native Fauna Management Program • Project Management Framework • Development Approval Process and Guidelines • Sustainability Strategy and Initiatives
Biosecurity	**Landside (First Point of Entry):** Minimise the risk of introduction of foreign pest species, rodents and insects, within operational ports and surrounding environments. **Marine Environment:** Implement State-Wide Array Surveillance Program at Pilbara Ports' coastal operational ports to enable the early detection and management of target marine pest species.	• Biosecurity Management Program (First Point of Entry) • State-Wide Array Surveillance Program
Cultural heritage	Implement best practice systems and processes that enable Pilbara Ports to identify, protect, promote, and responsibly manage risks from port services and activities with respect to the rich cultural heritage values that exist on port lands and waters	• Cultural Heritage Strategy • Cultural Heritage Management Plan • Aboriginal Engagement and Reconciliation Plan • Cultural Heritage Awareness Training (CHAT) Program

Table 4-1: Overview of Pilbara Ports environmental management themes, environmental objectives 2024-2025 and associated programs, strategies and plans.

Theme	Objectives	Key program / strategy / plan
Land and seabed	Responsibly manage Pilbara Ports port planning, operations, and marine services to prevent pollution and contamination of Port Land and seabed and implement actions to address legacy contamination issues within port areas	• Legacy Contamination Management Programs • Commercial Lease Inspection Program • Dredged Material Management Plan(s) • Development Approval Process and Guidelines
Noise	Minimise the potential for noise emissions from Pilbara Ports port planning, operations, and marine services to the local communities in which we operate.	• Development Approval Process and Guidelines • Project Management Framework
Waste	Responsibly manage wastes generated by Pilbara Ports port planning, operations, and marine services and seek to minimise those wastes which require disposal to landfill or specialised treatment.	• Development Approval Process and Guidelines • Project Management Framework • Licensed Waste Management Service Providers
Water	**Groundwater:** Understand long term trends in groundwater quality and assess potential impacts from Port land use (current and legacy) to inform future environmental management. **Stormwater:**Assess effectiveness of stormwater controls and potential impacts from Port land use to inform future environmental management **Marine:** Understand long term trends in marine environmental quality, ensure environmental values of the region continue to be protected and inform future environmental management	• Groundwater Monitoring Program • Stormwater Monitoring Program • Marine Environmental Quality Program • Commercial Lease Inspection Program • Dredged Material Management Plan(s) • Project Management Framework • Development Approval Process and Guidelines • Marine Oil Pollution Contingency Plans

OPERATION

05

Operation

5.1 Operational planning and control

Pilbara Ports maintains a range of processes to effectively manage risks and minimise the impacts of port services and activities to environment and cultural heritage assets of its ports, in a manner that is consistent with its *Environment and Cultural Heritage Policy*.

Port services and activities associated with Pilbara Ports significant environmental risks are delivered by implementing existing risk controls in combination with TAPs. Those services and activities that are not associated with significant environmental risks are managed in accordance with a range of other risk controls, which may include operational plans (e.g. Landside Operational Environmental Management Plans, Port Handbooks), which set operating criteria and controls to ensure environmental management requirements are met.

Where a process undergoes planned change, management system documentation is updated (including the *Environmental Risk Register*) and changes are communicated in accordance with the requirements of the *Document Control Procedure*. Uncontrolled changes (or incidents) are managed in accordance with the *Incident Management Procedure*.

5.2 Emergency preparedness and response

Pilbara Ports' Business Resilience program comprises the following five key elements:

- **Emergency Response**
  The initial onsite response which focuses on the preservation of life, the protection of property and environment, and the prevention of escalation;
- **Incident Management**
  The direct management of the response to an incident by an Incident Management Team;
- **Infectious Disease management**
  The management of the response to an outbreak of an infectious disease in the community by the Infectious Disease Management Committee.
- **Crisis Management**
  the strategic management of the medium and long-term consequences of an event or issue by a Crisis Management Team; and
- **Business Continuity Management**
  interruptions to the delivery of Port services and activities may require a Business Continuity Response Team to assist in returning to business as usual.

Pilbara Ports has developed an Emergency Response Plan for each of its operational Ports in Ashburton, Varanus Island, Dampier, and Port Hedland. Pilbara Ports *Environmental Risk Register* identifies marine oil pollution as the principal environmental emergency response scenario relevant to all Port locations, which requires a targeted emergency management plan. As such, Marine Oil Pollution Contingency Plans have been prepared by Pilbara Ports for each of its operational Ports. These plans have been prepared in accordance with the *Western Australian State Hazard Plan – Maritime Environmental Emergencies*, which covers:

a) the scope of effective oil spill response;

b) operational plans;

c) structures and agreements for inter-agency cooperation; and

d) framework for port authorities and industry to develop oil spill contingency plans.

Pilbara Ports' Emergency Response Plans and Marine Oil Pollution Contingency Plans for all operational Port locations are publicly available on the website **www.pilbaraports.com.au**.

SUPPORT

06

Support

6.1 Resources

Pilbara Ports Executive Committee determines organisational resources on an annual basis through the workforce planning process. This process includes consideration of staffing resources to ensure sufficient expertise is available for the successful implementation of this EMP.

Other resources required for the implementation of this EMP (e.g. monitoring equipment, use of specialist environmental consultants etc.) are assessed and planned for during the annual budgeting process.

6.2 Competence and awareness

An analysis of competency and training needs for Pilbara Ports staff and contractors is completed in accordance with the *Training Procedure*.

A mandatory minimum training requirement for all people working within operational areas at the Port of Ashburton, Port of Dampier and Port of Port Hedland is the completion of an online site induction. This induction communicates environmental obligations and expectations to ensure Pilbara Ports' services and activities are delivered in a manner that respects the environment cultural heritage assets of its ports.

Additional environment and cultural heritage awareness training packages are also delivered to new Pilbara Ports employees following completion of the site induction. These packages communicate Pilbara Ports' roles in environment and cultural heritage management across its ports, including levels of operational control, legal and other requirements, significant environmental aspects and environmental objectives, and expectations around hazard and incident reporting.

Pilbara Ports employees also complete a range of Oil Spill Incident Response Training (OSIRT), incorporating classroom training, practical equipment familiarisation sessions and equipment deployment drills. Pilbara Ports also implements annual oil spill exercises, which bring together Port staff, industry, and government stakeholders to test the effectiveness of emergency preparedness and response arrangements.

6.3 Communication

6.3.1 External

Pilbara Ports engagement and communications with external stakeholders on environment and cultural heritage management is guided by the *Stakeholder Engagement and Communications Strategy*. In implementing this strategy, Pilbara Ports hosts and attends a wide range of external forums to allow information exchange with industry, key stakeholders, and the local community on a wide range of operational issues including environment and cultural heritage management.

Pilbara Ports main forum for information exchange with the community is through the Community Consultation Committees (CCC), which are established at each of its operational ports in Ashburton, Dampier, and Port Hedland. Pilbara Ports also hosts Technical Advisory and Consultative Committees (TACC) for each of its operational ports, which focus more specifically on dredging environmental management in Pilbara Ports operational ports. These forums share information and provide mechanisms for feedback with the local and regional communities in which Pilbara Ports operates.

Pilbara Ports also communicates key information on its environmental performance to port stakeholders via its *Annual Report*, Pilbara Portal newsletters, website, Fact Sheets and this EMP, which are made available on the website. Pilbara Ports site induction package (available on the website) also contains dedicated modules to communicate important environment and heritage information.

Pilbara Ports also welcomes direct general feedback on the environment and cultural heritage management of its regional ports. This is possible by directly contacting Pilbara Ports regional port offices in Dampier and Port Hedland, and corporate office in Perth. It is also possible to provide feedback through the website and via email to feedback@pilbaraports.com.au.

6.3.2 Internal

Pilbara Ports Environment and Heritage team leads internal communication on environment and heritage and business activities through a range of means, including (but not limited to): Executive and Board reporting, intranet, environment awareness programs (including staff inductions), internal forums (e.g. Health, Safety and Environment forums) and the IMS Committee.

6.4 Documents and records

Pilbara Ports has adopted an enterprise-wide approach to document and records management. The *Document Control Procedure* sets out the expected standard for controlled documents. Pilbara Ports EMP and associated records are kept in accordance with the *Recordkeeping Policy and Recordkeeping Plan*.

PERFORMANCE EVALUATION

07

Performance evaluation

7.1 Monitoring, measurement, analysis and evaluation

Pilbara Ports has implemented a range of environmental monitoring programs across its regional ports. These monitoring programs have been implemented either due to:

- **Legal requirements:**
  Where Pilbara Ports is bound to undertake monitoring and audits under statutory approvals issued to the organisation under environment and/or cultural heritage legislation; and/or
- **Best practice:**
  Where the aspects and impacts of delivering Pilbara Ports services and activities have been analysed through the *Environmental Risk Register* and a monitoring program has been established to characterise and monitor the quality of the environment in response to these.

Pilbara Ports current environmental monitoring programs are listed within the *Environmental Monitoring Plan*, including:

- **Mangroves:**
  Mapping the extent and monitoring the health of mangrove communities within the ports of Ashburton, Dampier, and Port Hedland;
- **Groundwater:**
  Water quality sampling and testing across a network of groundwater monitoring bores at the ports of Dampier and Port Hedland;
- **Marine sediment:**
  Marine sediment quality sampling and testing at the ports of Ashburton, Dampier and Port Hedland which is used to support and inform future maintenance dredging campaigns, Commonwealth sea dumping permit applications and further develop Pilbara Ports' understanding of trends in regional sediment quality;
- **Marine pests:**
  Bi-annual implementation of the State-Wide Array Surveillance Program (SWASP) marine biosecurity surveillance across the ports of Ashburton, Dampier and Port Hedland;
- **Air quality (dust):**
  Pilbara Ports air quality monitoring network in Port Hedland is operated and maintained by experienced third-party consultants. Real-time boundary monitors at the Utah Facility monitor the concentration of dust at five or 10-minute intervals except during cyclones, maintenance events or monitor faults. Further analysis is conducted through High Volume Air Samplers at the Utah Facility and Eastern Operations, which identify the concentration of dust and specific metal concentrations within that dust;
- **Marine environmental quality:**
  Quarterly sampling and testing of sediments and water is undertaken by Pilbara Ports at the ports of Ashburton, Dampier and Port of Port Hedland to build understanding of the port's marine environment, including natural processes;
- **Stormwater quality:**
  Sampling and testing of stormwater and surface water to inform management and improve stormwater quality discharges at the ports of Dampier and Port Hedland;
- **Weeds:**
  Comprehensive biennial weed surveys and targeted management of weeds are completed across port lands in Ashburton, Dampier and Port Hedland;
- **Vertebrate pests:**
  Monitoring and management of feral cat and fox populations across port land in Ashburton, Dampier and Port Hedland is carried out to protect the local turtle populations and other native species;
- **Exotic pest species:**
  Targeted pest monitoring and management programs are implemented quarterly at Ashburton, Dampier, and Port Hedland operational facilities as part of First Point of Entry and general biosecurity requirements; and
- **Coastal Processes Monitoring:**
  Comprehensive monitoring of coastal processes (e.g. littoral sediment transport and shoreline morphology) at the Port of Ashburton as part of the Coastal Processes Monitoring and Management Plan required under State environmental approval Ministerial Statement 1131.

Pilbara Ports communicates to external stakeholders on the key outcomes of its environmental monitoring programs and initiatives through Fact Sheets and various processes and stakeholder forums established under the *Stakeholder Engagement and Communications Strategy* (e.g. Community Consultative Committees). Several environmental monitoring programs that are implemented as a result of legal requirements also require the outcomes to be communicated publicly on the website.

Pilbara Ports also communicates to internal stakeholders on the key outcomes and performance of environmental monitoring programs via monthly reporting to the Executive Committee (by exception) and the intranet.

By routinely evaluating the results of its environmental monitoring and management programs against its environmental objectives, Pilbara Ports can effectively monitor, report, and continually improve the overall performance and effectiveness of its IMS.

7.2 Evaluation of compliance

Pilbara Ports maintains a process for periodically evaluating compliance to its legal and other requirements (refer to Section 4.1). This process is described within the *Compliance Management Manual*, with compliance records managed through an online task management workflow system.

7.3 Internal audit

Pilbara Ports has implemented an IMS Internal Audit Program. Documents, business processes and systems to be audited are detailed in the *Integrated Management System Procedure*. The Internal Audit Program is reviewed by the Executive Committee and approved by the Board. Pilbara Ports' Chief Financial Officer is responsible for overseeing the implementation of the program with support from Pilbara Ports' IMS Committee. Internal audits are conducted in accordance with the *Internal Audit Procedure*.

7.4 Hazard and incident management

Pilbara Ports' processes for managing environmental hazards and incidents are documented in the *Incident Management Procedure* and *Hazard Management Procedure*. All environmental hazards and incidents are reported and communicated via Pilbara Ports' online reporting tool.

7.5 Management review

Pilbara Ports' *Environment and Cultural Heritage Policy* is reviewed by the Executive Committee and approved by the Board every two years to ensure its continuing suitability and effectiveness.

The Executive Committee review and endorse the EMP annually to ensure Pilbara Ports' environmental objectives remain current and promote continual improvement in environmental management.

Half-yearly and annual reviews of environment and heritage performance are also completed by Pilbara Ports, as part of its management review process and presented to the Executive Committee in July and January each year. This includes a detailed review of Pilbara Ports' environmental monitoring and management programs listed under Table 4-1.

Updates on environment and heritage matters, including any non-compliance matters are reported (by exception) to the Executive Committee in dedicated Environment and Heritage Update papers. The Executive Committee also receives updates on environmental incidents and performance in managing dust emissions at Port Hedland facilities.

IMPROVEMENT

08

Improvement

8.1 Non-conformity and corrective actions

The *Non-Conformity Manual* identifies the process by which Pilbara Ports documents non-conformity and preventative and corrective actions. By following this process, Pilbara Ports can achieve continual improvement and prevent recurrence of non-conformity.

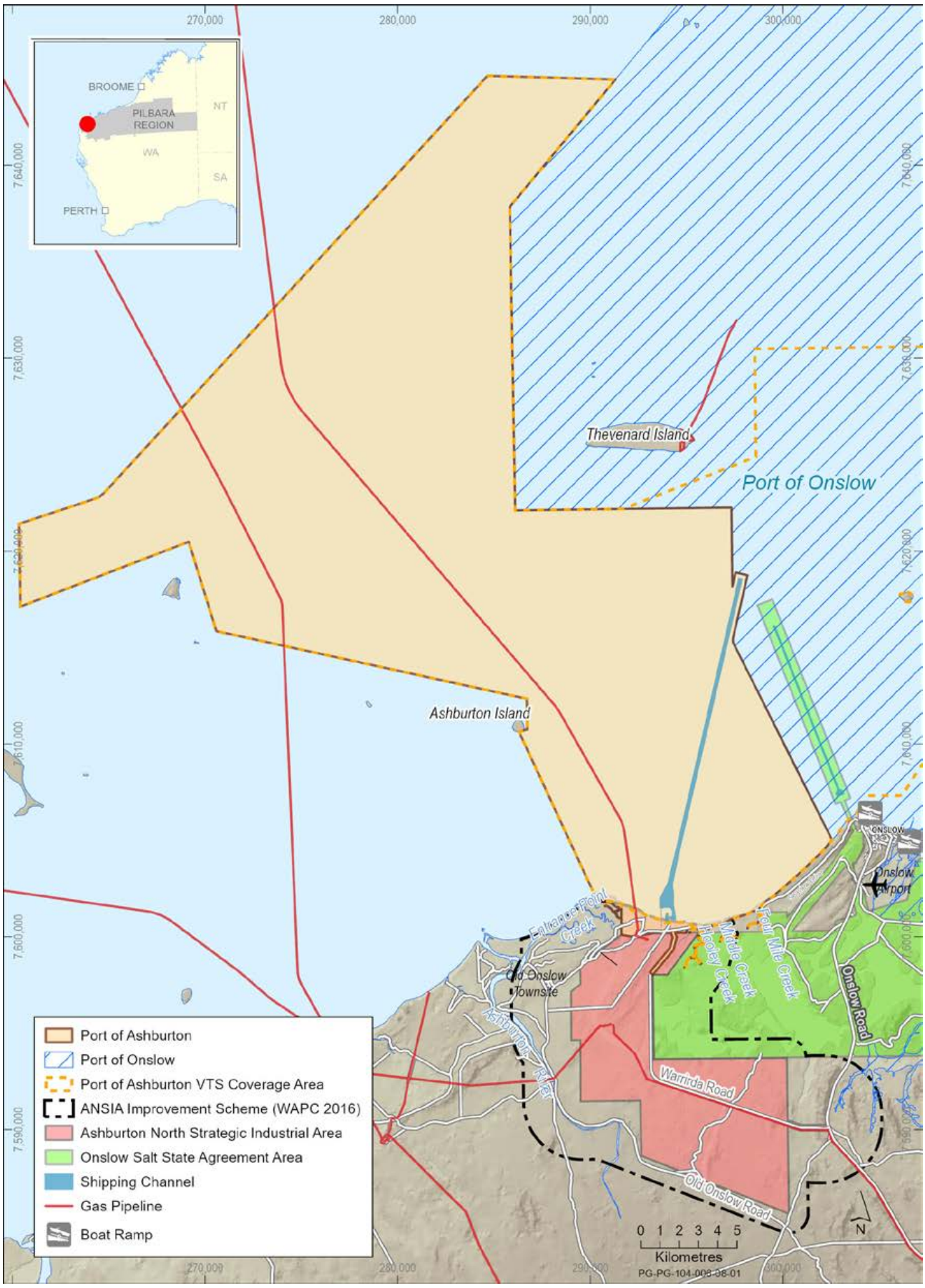
Pilbara Ports maintains a register of all non-conformity records. All preventative and corrective measures are actioned in accordance with the *Non-Conformity Manual*.

8.2 Continual improvement

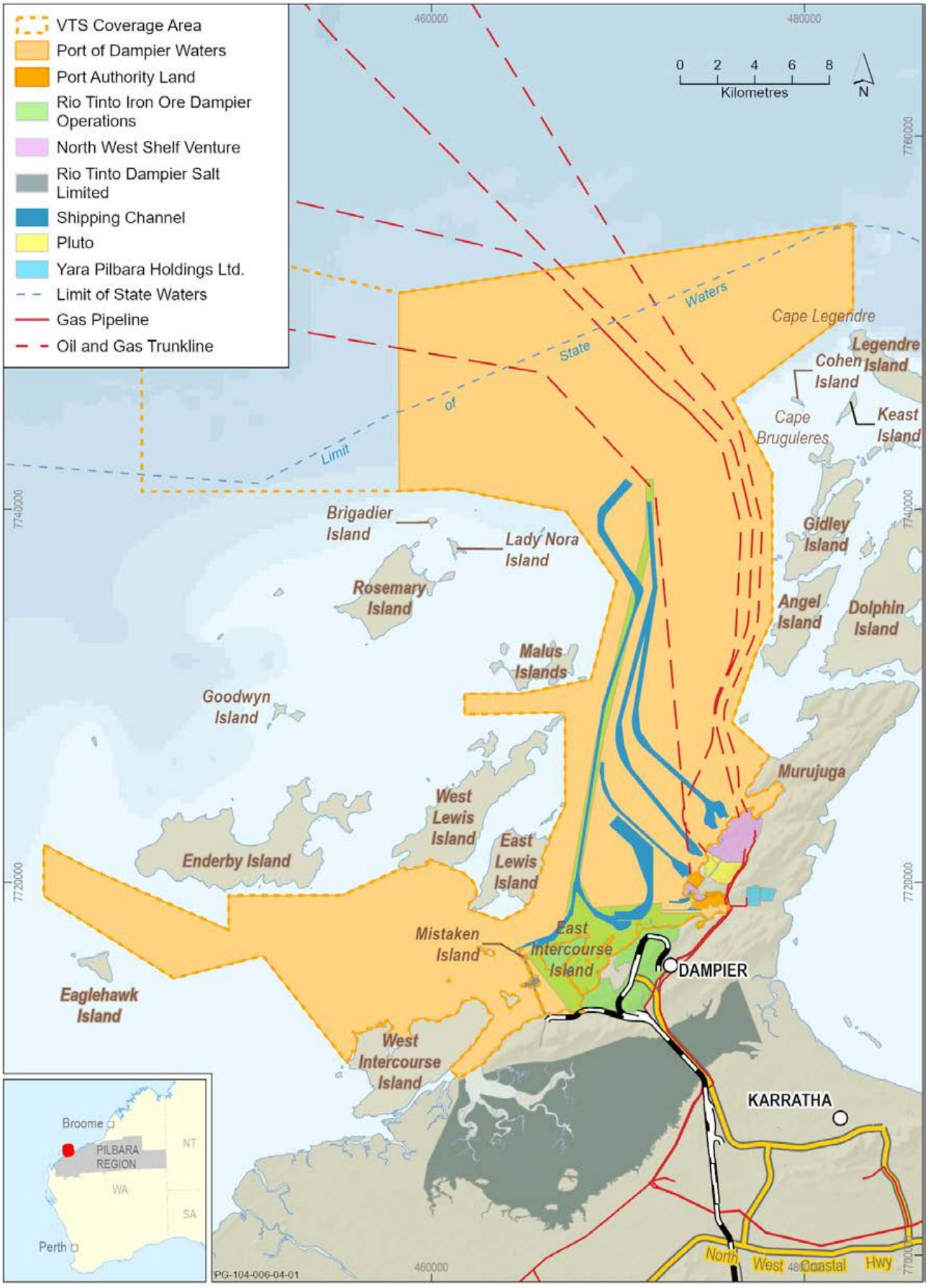
Pilbara Ports strives to continually improve the suitability, adequacy, and effectiveness of its IMS to enhance environmental performance through the implementation of this EMP, and associated documentation. The annual review of this EMP and ongoing auditing pursuant to the Internal Audit Program ensures Pilbara Ports can meet its commitment to continual improvement, in line with the *Environment and Cultural Heritage Policy*.

APPENDICES

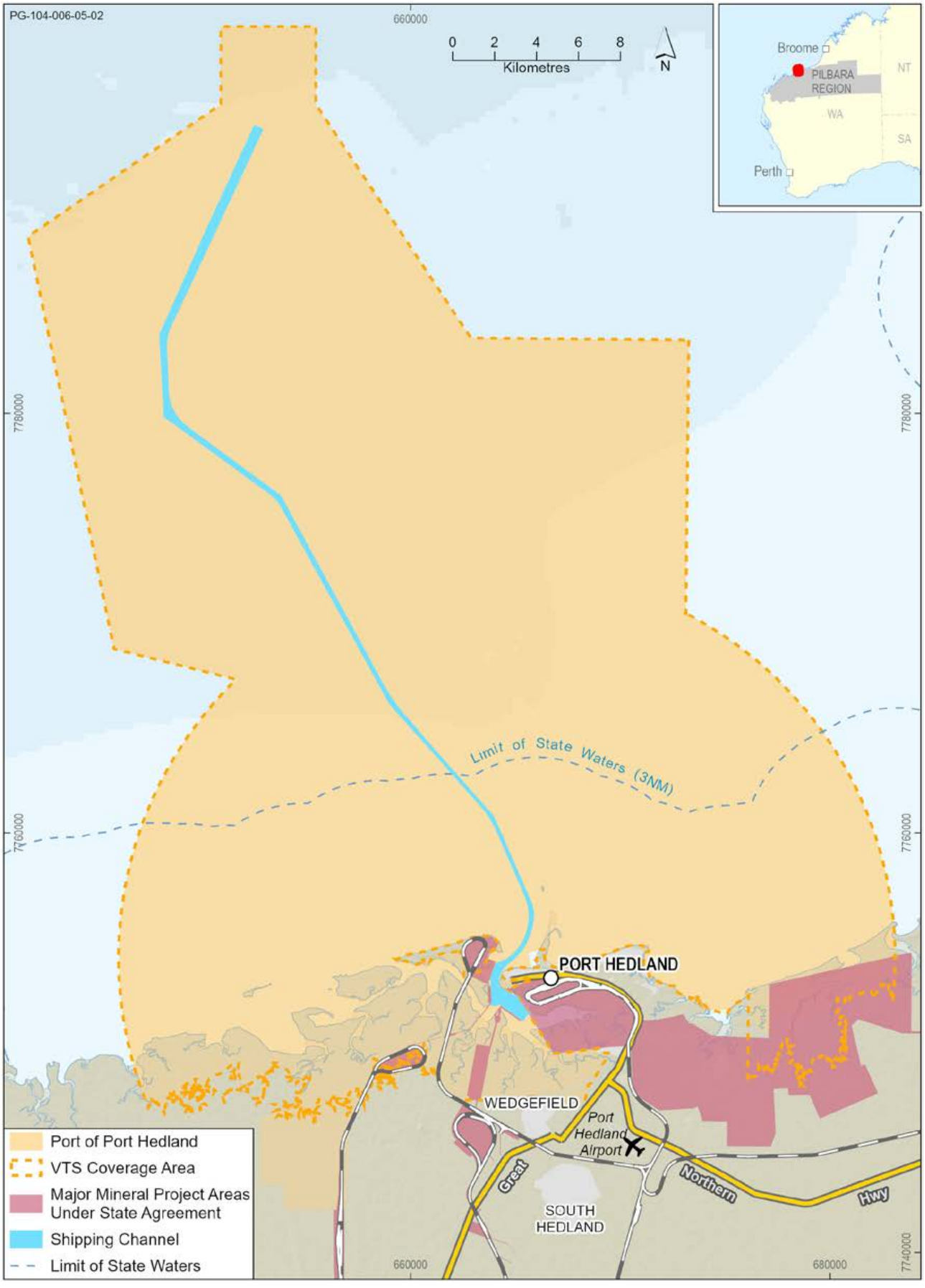
Appendix 1A – Port of Ashburton (Locality Map)



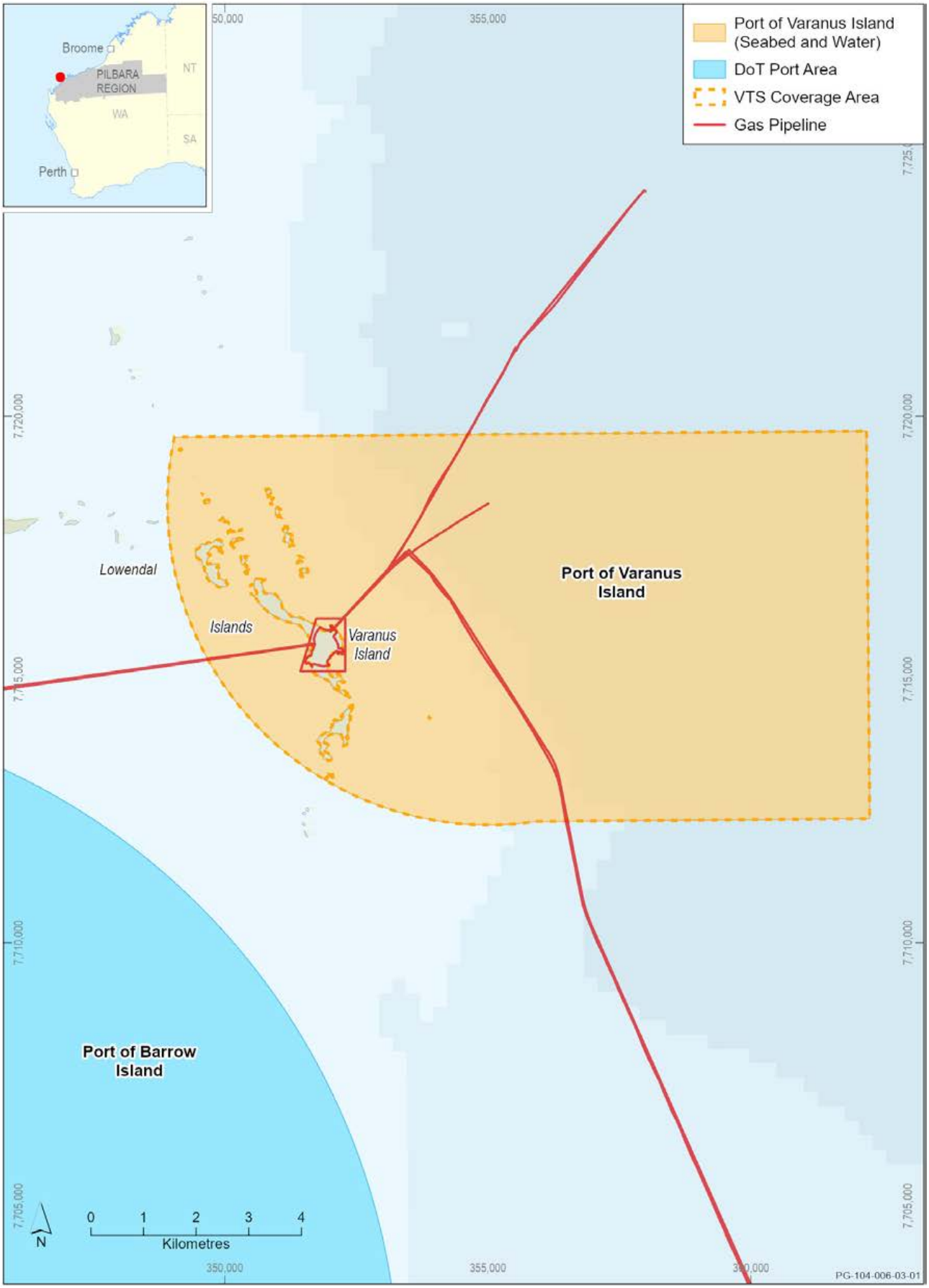
Appendix 1B – Port of Dampier (Locality Map)



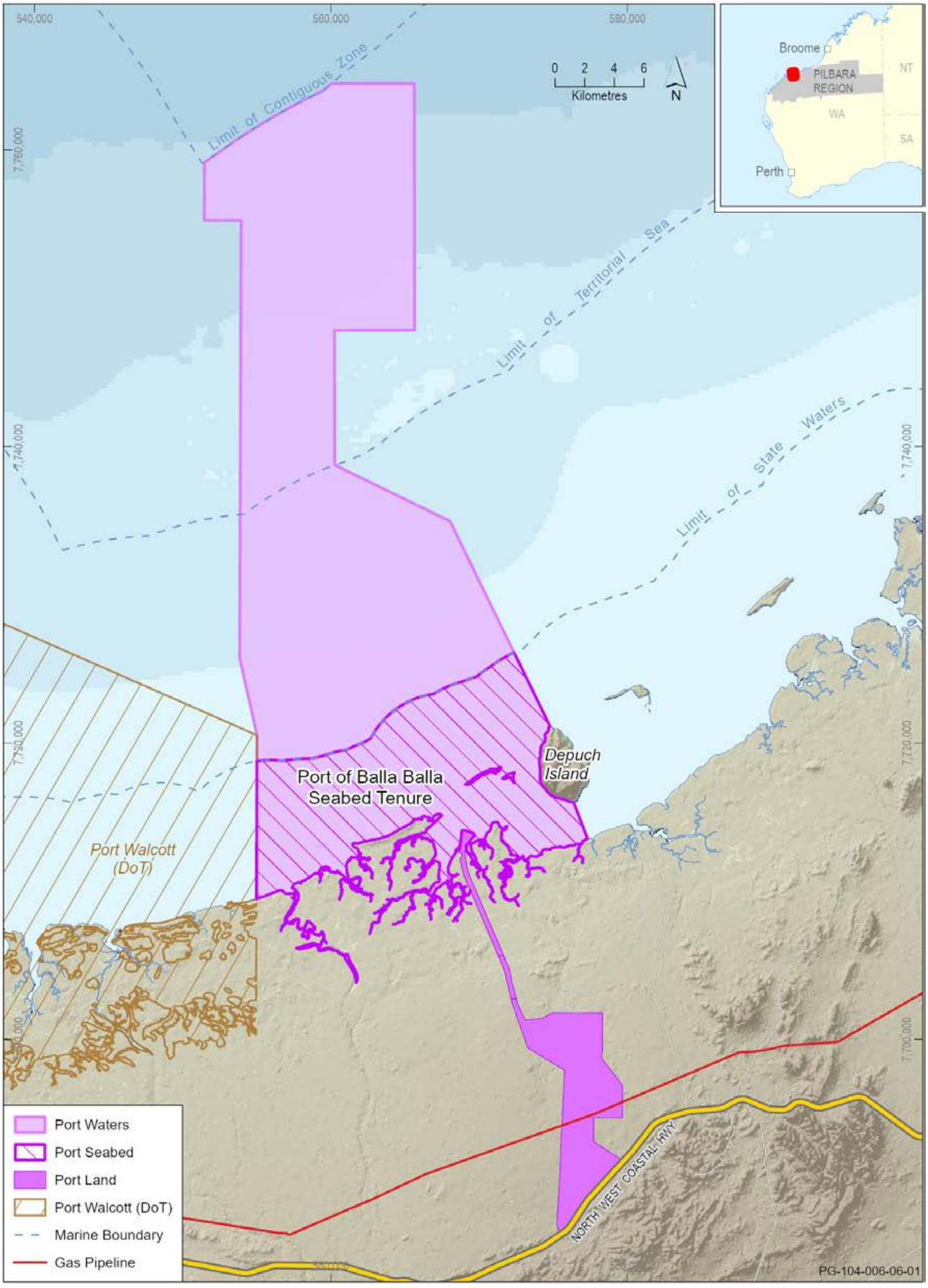
Appendix 1C – Port of Port Hedland (Locality Map)



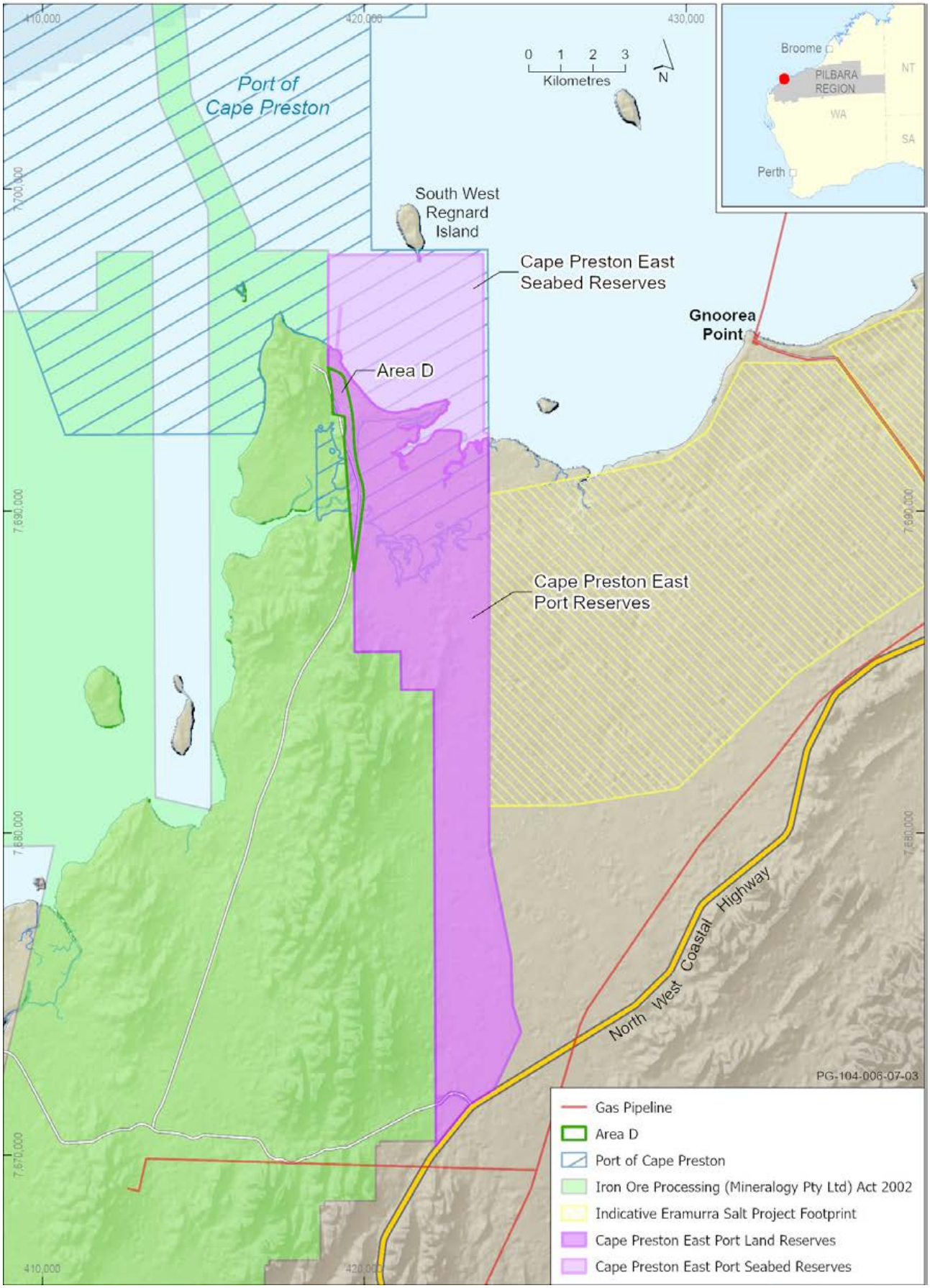
Appendix 1D – Port of Varanus Island (Locality Map)



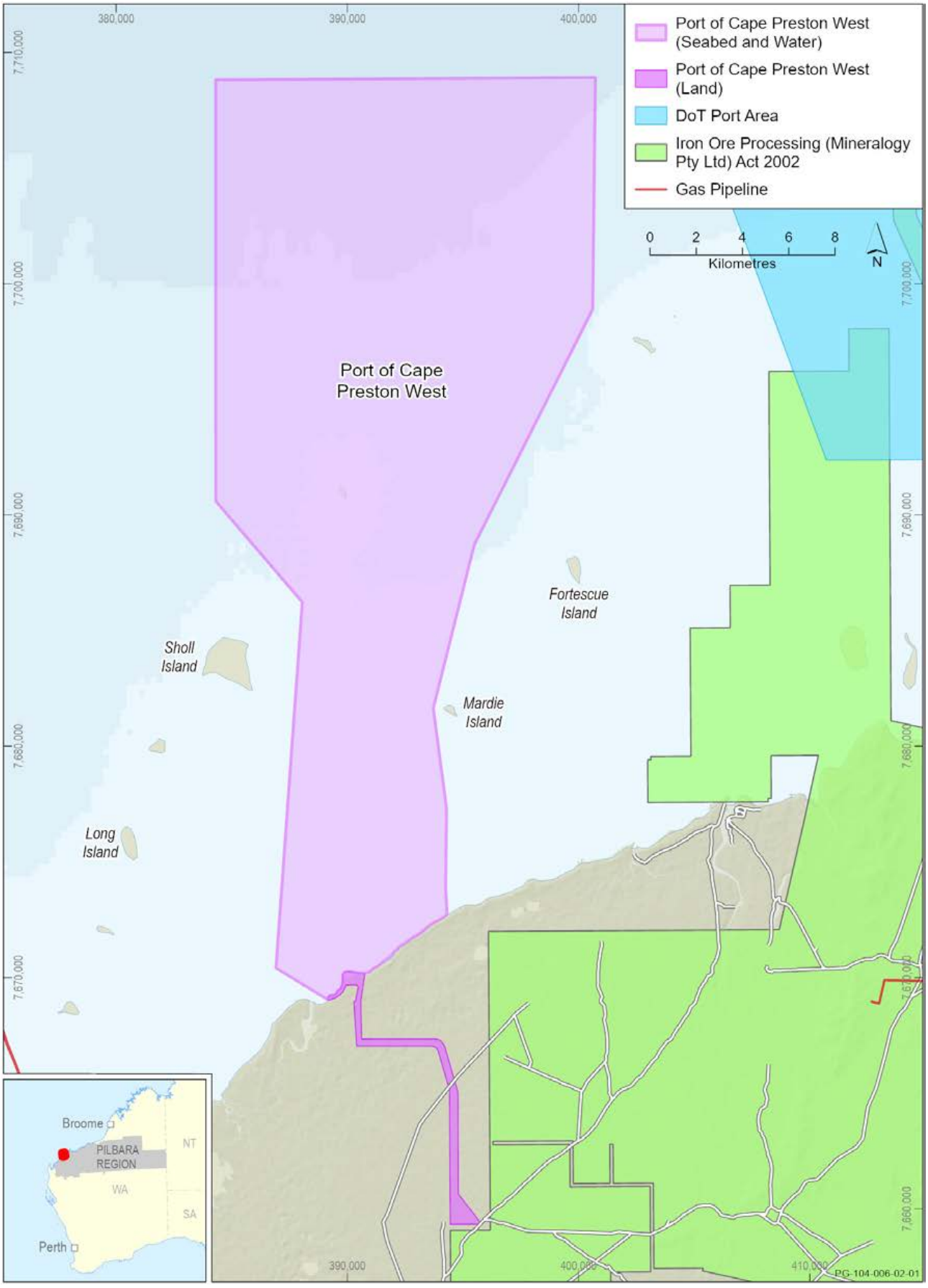
Appendix 1E – Port of Balla Balla (Locality Map)



Appendix 1F – Proposed Port of Cape Preston East (Locality Map)



Appendix 1G – Port of Cape Preston West (Locality Map)



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