The proposed Anketell Port project will unlock the further potential of Western Australia’s Pilbara region, by providing a new, world class facility for the export of iron ore and other commodities.

The project was initiated by the Western Australian Government in early 2010 in recognition that the major public ports in the region were heavily constrained following a period of record economic expansion.

This Master Plan outlines the Western Australian Government’s vision for the port: a multi-user, multi-commodity facility that can be built and expanded in stages over the coming decades as demand requires.

With a capacity of at least 350 million tonnes per year once fully developed, the Anketell port provides opportunities not only for the expansion of existing operations, but also for emerging companies to gain a valuable foothold in the industry.

The Master Plan also provides for the development of an infrastructure corridor that will contain essential services like rail lines and access roads, and an industrial area to support the operations of the port.

The Western Australian Government has undertaken extensive work to progress the project to this point. The site is now project ready, with major environmental and native title approvals in place.

This Master Plan is the next step, and will provide a starting point for negotiations with interested parties.

I welcome your interest in Anketell Port, and the Western Australian Government looks forward to working with potential builders and users for this significant project.

COLIN J BARNETT MLA
PREMIER OF WESTERN AUSTRALIA

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Anketell Port Master Plan

Executive Summary
The Government of Western Australia is developing Anketell Port as the next major deepwater port for the Pilbara coast. The greenfield site is to be developed as a multi-user, multi-commodity port and associated industrial areas, in accordance with a set of development principles applied to major port developments in Western Australia.

Anketell Port is situated on the West Pilbara coast 30 km east of Karratha. The future port’s key attributes are its project ready land, large size, ease of access, and co-location with industrial areas that will create synergies with future heavy industries. The port is planned as an iron ore export facility with an ultimate capacity of not less than 350 million tonnes per annum (Mtpa), with provision for heavy industry exports, general cargo trade and fuel imports.

Anketell Port will be developed and funded by private sector builders/users, and managed by a Port Area Manager under the Port Authorities Act 1999 (WA) (PAA). Development is expected to occur to meet demand in stages, over a number of decades. The industrial land areas will be developed and managed by the Western Australian Land Authority (LandCorp).

The key driver for the port is the ongoing demand to export iron ore from the Pilbara region. A further key driver is the unprecedented level of economic development in the Pilbara over the last decade and the resulting broader economic and social issues related to development. This has led the State to develop and promote a strategic vision for the region under the banner of ‘Pilbara Cities’. This Port Master Plan (Plan) supports the Pilbara Cities vision and is consistent with the 2012 Western Australian Ports Governance Review.

The planned port consists of three specific land use areas, namely the Port Precinct, Infrastructure Corridor (which connects to the North West Coastal Highway), and Industrial Areas. The Anketell Port land is “project ready” for all projects that fulfil the State’s development principles for the port as described in this Plan. This Plan contains an Ultimate Development Concept which describes the expected layout and infrastructure configuration after several decades, with a capacity of not less than 350 Mtpa. The Ultimate Development Concept has been planned to allow design and construction of all major components to be staged, while allowing existing operations to continue with minimal disruption.

The Plan outlines the strategic governance principles, commercial framework and access regime which will provide for the efficient integration of a number of builders/users’ projects and enable the optimum use of port infrastructure and assets.

This Plan will be regularly reviewed to ensure it reflects the evolving needs of industry and changing trade and market conditions.

Anketell Port will provide a world class integrated suite of port infrastructure, associated facilities and support services to expand the development of the Pilbara for generations to come.

The Government of Western Australia welcomes comments and proposals in respect to this Port Master Plan from interested parties that wish to participate in or to develop aspects of Anketell Port.

1. Introduction and Vision
The Anketell Port Master Plan (Plan) has been developed collaboratively by the Department of State Development (DSD) and the Dampier Port Authority (DPA) as a working document to guide the development of the Anketell Port over the next 30 years. It provides context and a vision for how the port will be developed in stages and describes how Anketell Port relates to the development of the Pilbara region of Western Australia.

This Plan is consistent with the State of Western Australia’s principles for the port and the Pilbara region, and takes into consideration land use, environmental, cultural, indigenous heritage, social, infrastructure and access issues.

Anketell Port is the next major deepwater port situated along the Pilbara coast. The feasibility and environmental acceptability of the port has been substantially investigated by Government agencies and private sector resource companies since the Western Australian Government announced its intention to develop Anketell in 2010. The greenfield site is to be developed as a multi-user, multi-commodity port and associated industrial areas, in accordance with a clear set of development principles applied to major port developments in Western Australia.

The port is planned as an iron ore export facility with an ultimate capacity of not less than 350 Mtpa, with provision for bulk commodity exports, general cargo trade and fuel imports.

Anketell Port will be developed and funded by private sector builders/users, and managed by a proposed Port Area Manager under the Port Authorities Act 1999 (WA) (PAA).

The locality of Anketell is situated on the West Pilbara coastline. It is approximately 1,600 km (by road) and 1,250 km north-northeast of Perth in Western Australia. Anketell is also 80 km (by road) and 35 km east of the Port of Dampier, and 10 km west of the existing Port Walcott facilities owned and operated by Rio Tinto at Cape Lambert. The site location map for the port is shown in Figure 1.

2. History of Anketell Port Planning
In 2009, the State commissioned a study to investigate the potential of the Anketell area to develop a port for the minerals industry. In 2010 and 2011, DSD, DPA and LandCorp worked across Government and industry to identify key land-use areas within the Anketell development area to establish planning boundaries (shown in Figure 1).

In 2011 an Ultimate Development Concept was described for Anketell Port that met the identified State Government development principles. This concept is described further in Section 7.

Subsequently the Western Australian Government endorsed a private proponent as the environmental proponent to apply for environmental assessment for its project which incorporated Anketell Port. The Ultimate Development Concept assisted the Environmental Protection Authority in its assessment of the application for a Stage 1 development proposed by this private proponent.

In 2012, the State commissioned an independent review of the master planning to consider the consistency of the draft Plan with the State’s principles and to identify any implications for potential future port builders/users. This review broadly supported the draft Plan, and contributed towards resolution of some interface issues with potential future builders/users.

In early 2013, the private proponent received State and Commonwealth environmental approvals for the construction of a four-berth port with an annual iron ore export capacity of 115 Mtpa.

A range of options and development scenarios have been considered in the preparation of the Anketell Port Master Plan involving extensive consultation with a number of government and industry stakeholders. This Plan represents the outcome of these processes.
3. Strategic Drivers and Principles

The key driver for Anketell is the ongoing demand to export iron ore from the Pilbara region of Western Australia. The State is developing the Anketell Port to address the lack of port capacity in the Pilbara, which is one of the primary constraints to the expansion of the iron ore industry. The capacity constraints are the result of:

- Expansion proposals by major industry groups and the foreseeable ongoing demand for iron ore and other commodities.
- The legacy of how the iron ore industry has developed in the Pilbara, which has resulted in vertically integrated supply chains and the lack of provision for, or enforcement of, third party access regimes.
- Lack of independent infrastructure provision, such as third party rail and port operators.

A further key driver is the unprecedented level of economic development in the Pilbara region over the last decade and the resulting broader economic and social issues related to development. This has led the State to develop and promote a strategic vision for the region under the banner of 'Pilbara Cities’. The Pilbara Cities vision seeks to normalise the key Pilbara towns of Karratha and Port Hedland and diversify the economic base to underpin the development of regional population centres, so the benefits of the current high levels of activity may be sustained into the future. The Plan supports the Pilbara Cities vision.

The State’s interest in the Anketell Port development is summarised in the following high-level strategic principles:

- Create an open access, multi-user, multi-commodity port which attracts private sector participation.
- Encourage and facilitate current and future potential private sector participation through developing a conceptual design and management approach for the port that minimises material barriers of entry (either physical or commercial).
- Adopt a conceptual design that provides for economic and environmentally sound expansions.
- Enable a staged development of Anketell Port up to an export capacity of not less than 350 Mtpa iron ore with provision for the export of other bulk commodities, and the development of facilities for general cargo, marine maintenance and support services.
- Select an initial private sector port builder/user to fund and develop its own dedicated supply chain infrastructure as well as common user infrastructure to establish the port.
- Support the development of new iron ore mines, including those that are not currently economic due to the lack of port infrastructure and/or are stranded due to the lack of port options through inadequate multi-user infrastructure and unsuitable access arrangements.
- Diversify the industrial base for broader economic development through establishment of industrial areas in close proximity to the port.
- Maximise local content and employment outcomes.
- Facilitate future expansion activities to accommodate future compatible industries.
- Adopt leading practice engineering standards for the design, construction and management of port infrastructure.
- Enable the participation of a wide range of port users, both large and small, who are considered important to the further development of the Pilbara region.
- Minimise impacts on Aboriginal and non-Aboriginal heritage and the environment.

- Ensure that the Infrastructure and Services Assessment (ISA) framework as defined in the Indigenous Land Use Agreement (ILUA) with the Ngarluma people is fully applied to the port development.

4. Clear Government Responsibilities

Anketell Port will be one of several major ports including the ports of Port Hedland and Dampier, the port currently under construction at Ashburton North, and the Shipping and Pilotage Act (SPA) ports at Port Walcott, Cape Preston, Varanus Island, Barrow Island, Airlie Island, Thevenard Island and Onslow) which will be managed under the PAA.

This approach is consistent with the Western Australian Ports Governance Review in 2012. The Port Area Manager will be the DPA or its proposed amalgamated entity the Pilbara Ports Authority or another port authority established under the PAA or other relevant legislation. The Port Area Manager will manage common user infrastructure, the operation and use of the Anketell Port and Infrastructure Corridor, access arrangements, capacity allocation, leases, licences, easements, development approval processes and port user charges.

DSD is the ‘Lead Agency’ for the Anketell Port and Infrastructure Corridor and Industrial Areas, and as such is responsible for the coordination of the project approval processes. The Industrial Areas will be owned and managed by LandCorp on behalf of the State.

5. Strategic Land and Infrastructure

The port consists of three specific land-use areas within the Anketell project development area and planning boundaries (shown in Figure 1), namely

- Port Precinct (excluding marine area): 1,701 ha;
- Infrastructure Corridor: 1,761 ha;
- Industrial Areas including a Strategic Industrial Area (SIA): 838 ha.

Other relevant legislation

...
The Port Precinct is designed to have a capacity of not less than 350 Mtpa that accommodates the iron ore supply chain infrastructure (such as stockpiles, rail loops, car dumpers and conveyors). The overall precinct comprises the land and waters to be vested in the Port Area Manager [including the Port Precinct and Infrastructure Corridor] under the provisions of the PAA.

The Infrastructure Corridor is a multi-user area critical to the development and utility/operability of the port and industrial areas. It will contain the rail lines and associated marshalling yards, port access road and other infrastructure services, and connect the Port Precinct with the North West Coastal Highway. The Industrial Areas have been planned to enable industry to be established for the support of the port and any future mining operations.

6. Anketell Port Land Project Ready

The Anketell Port land is “project ready” for all projects that fulfil the State’s developmental principles for the port as described in this Plan. Significant investigations carried out and approvals achieved to date include:

6.1. Environmental

In early 2013, a private proponent received State and Commonwealth environmental approvals for the construction of a four-berth port with an annual export capacity of 115 Mtpa. Environmental approvals based on an Ultimate Development Concept of not less than 350 Mtpa include approvals under the Environmental Protection Act 1986 (WA), the Environment Protection and Biodiversity Conservation Act 1999 (Cth) and the Environmental Protection (Sea Dumping) Act 1981 (Cth). Additional approvals are required if the overall export capacity exceeds 115 Mtpa. These environmental approvals relate to a proposal by the private proponent, however any amendments to this proposal by other builders/users may be permitted subject to compliance with the relevant provisions of the Environmental Protection Act 1986 (WA).

6.2. Native Title and Aboriginal Heritage

In 2005, in accordance with the Native Title Act 1993 (Cth) [NTA], the Federal Court of Australia made a determination of native title over most of the land areas comprising the port precinct, infrastructure corridor and industrial land areas in favour of the Ngarluma people. Accordingly, there will be ongoing interaction with the Ngarluma people, represented by the Ngarluma Aboriginal Corporation (NAC) throughout the life of the port. The State has entered into an Indigenous Land Use Agreement (ILUA) with the NAC that provides for compliance with the future act provisions of the NTA. It also sets out a heritage protocol for undertaking Aboriginal heritage surveys. The State is undertaking the first tranche of comprehensive Aboriginal heritage surveys in early 2014.

6.3. Other approvals required

Port builders/users will be responsible for all project specific approvals, including additional environmental approvals pertaining to their project. Under the PAA, port builders/users will be subject to technical and safety verification before they have the right to construct, operate and maintain port infrastructure. The State will be able to assist port builders/users with information and data. Any port builder/user wishing to build and operate a rail to transport ore from the mine to the commencement of the infrastructure corridor at North West Coastal Highway will be required to enter into a State Agreement with the State.

6.4. Workforce Accommodation

A number of potential sites for temporary construction workforces have been identified and received in-principle support from the Shire of Roebourne and other State and local government agencies. Three sites have been identified for large direct construction camps and two additional smaller areas were identified as possible sites for indirect construction camps.

Local and State government agencies will further consider indirect and opportunistic workforce accommodation requirements at some time in the future. This may include further evaluation of the sites deemed not suitable for direct construction workforces.

7. Infrastructure to be Developed

Anketell Port will be developed by private sector port builders/users to meet demand in stages, expected to be over a number of decades. The DPA Land Use and Infrastructure Plan outlines the Ultimate Development Concept for the port and the possible development stages from Stage 1 through to the ultimate planned capacity.

The actual Stage 1 development may vary from that contained in more detailed plans developed by the DPA, depending on the requirements of the endorsed initial builder/user. The actual Stage 1 capacity and configuration should be decided by the port builder/user, subject to the following:

- A minimum capacity of approximately 25 Mtpa
- Adherence to the development principles described in this Plan;
- Consistency with the Ultimate Development Concept.

7.1. Ultimate Development Concept

The Ultimate Development Concept describes the expected layout and infrastructure configuration after a period of many years, and has a capacity of not less than 350 Mtpa. (See Figure 2).

The Ultimate Development Concept has been planned to allow design and construction of all major components to be staged, while allowing existing operations to continue with minimal disruption.

Iron ore port builders/users will have rights to dedicated marine and terrestrial infrastructure for ore transport, storage and export [the iron ore supply chain].

The rail corridor will be able to accommodate rail and associated infrastructure for up to four port builders/users and includes marshalling yards, rail workshops and maintenance facilities located towards the southern end of the Infrastructure Corridor. It extends into the nested rail loops surrounding the stockpiles on the western side of the Port Precinct.

Where the rail interfaces with the North West Coastal Highway, there will be a requirement for grade separated crossings. Should a second rail line be proposed then a road bridge over the North West Coastal Highway will be required on entering into the Infrastructure Corridor. The design and development strategy for this crossing will need to be agreed with Main Roads WA.

The Ultimate Development Concept allows for four marshalling/maintenance yards to be located side by side in the rail corridor. The marshalling facilities will be 200 m to 300 m wide, with the length being determined by the length of trains specified by the port builders/users. The Ultimate Development Concept for the stockyards provides for storage of 5% of throughput, or 20 Mt (for not less than 350 Mtpa) and caters for the different storage needs of hematite and magnetite ores.

The stockyards, rail corridor and the port access road will need to be protected from storm surges and cyclonic waves by seawalls.

The Ultimate Development Concept for marine infrastructure allows for two double-sided iron ore loadout jetties with a total of 16 berths [capable of berthing Capesize bulk carriers], eight shovelors, vessel turning basins, berthing pockets and a single shipping channel with a declared depth of at least 15 m below Chart Datum. A single 115 m wide causeway will connect the terrestrial infrastructure of the Port Precinct with the loadout jetties [see Figure 3].

7.2. Stage 1 Infrastructure

Based on the environmental proposal by the private proponent, the key components of the Stage 1 infrastructure for the iron ore supply chain are envisaged to comprise rail, iron ore stockyards and marine export facilities.
Anketell Port Master Plan

Figure 2: Ultimate Development Concept: Indicative layout of terrestrial infrastructure

Figure 3: Ultimate Development Concept: Indicative layout of marine infrastructure
The environmental approvals for Stage 1 development allow for an annual export capacity of 115 Mtpa and construction of the following infrastructure:

- One jetty with a total of four berths, two shiploaders, two turning basins, four berthing pockets and a shipping channel.
- A causeway with a minimum width of at least 20 m to carry two conveyors and service roads.
- A protective seawall which may be temporary and may require expansion and/or relocation in later development stages.
- Two ore stackers, two ore reclaimers and two export conveyors in the stockyards.
- A port access road, one rail line and two car dumpers. The initial rail line could be a siding rather than a loop arrangement.

This Stage 1 description is not intended to preclude potential port builders/users from proposing alternative infrastructure options which have different configurations or capacities e.g. a road transport option.

### 7.3. Infrastructure for Common Use is Planned

The Ultimate Development Concept envisages that significant common user port infrastructure, in addition to the private port builders/users dedicated iron ore supply chain, will be required to support port operations. This common user infrastructure will include the shipping channel, breakwater/causeway, turning basin, berth pockets, product loading facilities, berths, and navigational aids.

It is anticipated that Anketell Port will provide the following infrastructure in the future:

- A Materials Offloading Facility (MOF) for the import of modules and other heavy/wide loads, capable of accommodating Panamax-sized vessels.
- A liquid import berth for diesel and jet A1 fuel capable of accommodating Medium Range and potentially Long Range vessels.
- A general cargo berth.
- A tug harbour for up to eight tugs and various pilot and other support vessels. The tug harbour will allow tugs to remain at berth during cyclones.
- A cyclone haven for small passing commercial or private craft at the wharves or at a limited number of swing moorings within the protected harbour.
- A heavy haul road to connect the port and the adjacent industrial land areas from the causeway to provide access for modules.
- Utilities and services located in the services corridor adjacent to the port access road will be available to port builders/users.

In addition, Australian Quarantine and Inspection Services (AQIS) and the Australian Customs and Border Protection Service will require facilities within the Port Precinct. Separate areas and facilities in the Port Precinct will cater for other non-iron ore port builders/users, as shown in Figure 2.

### 8. Clear Access Regime and Commercial Framework

#### 8.1 General Access Principles

The access principles for Anketell Port provide for the efficient integration of the facilities of a number of different builders/users and their projects and enable the optimum use of port assets. The following access principles build on the strategic principles described in Section 3:

- The Port Area Manager will own and manage all public assets and infrastructure, including common user infrastructure. The port operations model is yet to be decided.
- Port channel capacity allocation will be based on transparent and equitable protocols developed and managed by the Port Area Manager.
- Port builders/users will have a right to access the port facilities and areas (including utilising all multi-user facilities) defined in exclusive leases or non-exclusive licences negotiated with and managed by the Port Area Manager. These will be based on commercially negotiated terms between the infrastructure owner (generally the Port Area Manager) and the user.
- Access to the industrial areas is available to port builders/users seeking to use the area in accordance with its zoning, and will be defined in agreements negotiated with and managed by LandCorp.
- A multi-user corridor will be set aside within the industrial land areas for access and use by port builders/users and will provide for dedicated access and transportation of materials and essential services.
- Port builders/users will have the opportunity to develop, own and operate project related private user infrastructure on an exclusive basis by agreement with the Port Area Manager, consistent with these principles.

The port access model the State will adopt will be based on these principles and will also depend on how the port will be funded and built, staging, market demand and other factors.

#### 8.2. Funding Principles

When selected, the initial port builder/user will be responsible for funding, designing, constructing and commissioning its own dedicated private infrastructure as well as the first stage of the common user infrastructure and multi-user facilities, in accordance with the principles of this Plan.

The initial port builder/user will be entitled to recover its capital investment for the development of the common user infrastructure, and multi-user facilities, through commercial terms and conditions to be agreed.

The Government will enter into appropriate legislative/contractual arrangements with the initial port builder/user for Anketell Port, thereby providing additional assurance and minimizing any potential risk/s.

### 9. Consultation and Port Builder Selection Process

DSD and the DPA have jointly developed this Plan and will continue to work collaboratively to develop the Anketell Port and associated infrastructure. The development of this Plan has involved extensive consultation with government and industry stakeholders, including:

- LandCorp
- Main Roads Western Australia
- Shire of Roebourne
- Numerous industry stakeholders including API
- Fortescue Metals Group (FMG), Iron Ore Holdings Limited, Red Hill Iron Limited, Rutila Resources (formerly Forge Resources Limited) and Zenith Minerals Limited.

Consultation with these and other emerging stakeholders will continue as the Plan is reviewed and updated over time.

DSD has had a number of detailed discussions with potential port builders/users, and at this stage the initial port builder/user has not yet been determined by Government.

Options include evaluating proposals and technical capabilities of various industry groups and consortia interested in funding/building the port. This will ensure that the proposed infrastructure meets the State’s strategic principles as outlined in this Plan.

Upon finalisation of the selection of an initial port builder/user, the State will negotiate a framework for agreements that will govern the construction and ongoing management and operations of the port facilities and associated infrastructure and railway.

This Plan will be regularly reviewed to ensure it reflects the evolving needs of industry and changing trade and market conditions.
The Government of Western Australia welcomes comments and proposals in respect to this Plan from interested parties that wish to participate in or to develop aspects of Anketell Port consistent with this Plan, and DSD will provide guidance on the process and requirements to be considered as a port builder/user.

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