



KIMBERLEY
PORTS
AUTHORITY

Kimberley Ports Long-Term Masterplan

Development Strategy to 2076

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KPA Long-Term Masterplan

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Reece Waldock, AM
Chair



Luke Westlake,
CEO

FORWARD (BY CEO AND CHAIR)

Logistics and shipping requirements are growing exponentially in the Kimberley and KPA's ports of Broome, Derby, Wyndham and Yampi Sound service a range of industries including importation of fuel, bulk and general cargo, export of mining and agricultural products, and service provision to the oil and gas, resource and government sectors. The pristine Kimberley coastline is also a major drawcard for cruise shipping which continues to increase in popularity.

KPA's primary role is to facilitate maritime trade within the Kimberley region which in turn assists in providing economic and social benefits to our community and stakeholders. The facilitation of trade requires the ports to be developed in a strategic and sustainable manner, taking into account both State and Federal Government objectives. This fifty Year Masterplan brings together future planning for all of the ports in the Kimberley and combines them into one comprehensive document to provide a consistent approach to delivering a regional logistics supply chain solution that achieves this requirement.

Customer and stakeholder liaison has been a key element in bringing together infrastructure expectations and transport links that will grow and enhance business and community development in the Kimberley. Many opportunities have been identified throughout the formation of the plan which has been designed to deliver on KPA's mission, "To responsibly grow and connect the Kimberley" and vision, "To be known as progressive partners who foster trade."

KPA's mission: "To responsibly grow and connect the Kimberley."

"Kimberley Ports Authority acknowledges the Traditional Owners of the lands and waters in which we operate and pay our respects to Elders, past, present and future."

1 INTRODUCTION

1.1. The Need for a Strategic Plan

The Kimberley Ports Authority (KPA) is responsible for the Ports of Broome, Derby, Wyndham, and Yampi Sound.

The Masterplan provides strategic context and direction in the management and development of all Kimberley Ports over the next fifty years.

It includes delivery mapping over the short, medium and long terms, based on volumetric trade and fleet triggers, and takes into account the opinions and requirements of multiple stakeholders gathered and researched over the course on the Masterplan’s development.

It is essential that the Kimberley’s four ports are proactively planned, and their future operating requirements considered and fully understood.

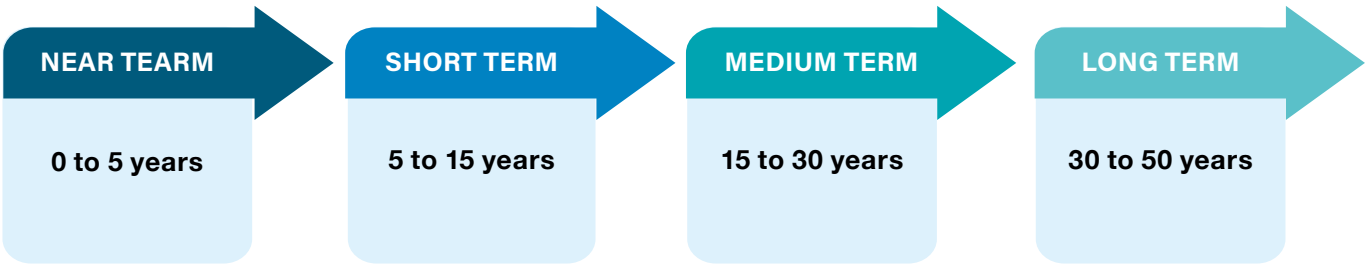
This will assist in ensuring that the ports do not become critically constrained or ineffective to accommodate their primary purpose; that being to facilitate trade for the Kimberley Region.

The master planning process has identified that some of the ports face challenges in the future and, absent appropriate action, that these could potentially become critical in time.

The Masterplan is designed to meet these challenges, and to guide the strategic development of the Kimberley’s ports into the long term in a sustainable manner. Further, it identifies new or emerging opportunities and provides outline strategies on how best to capture these.

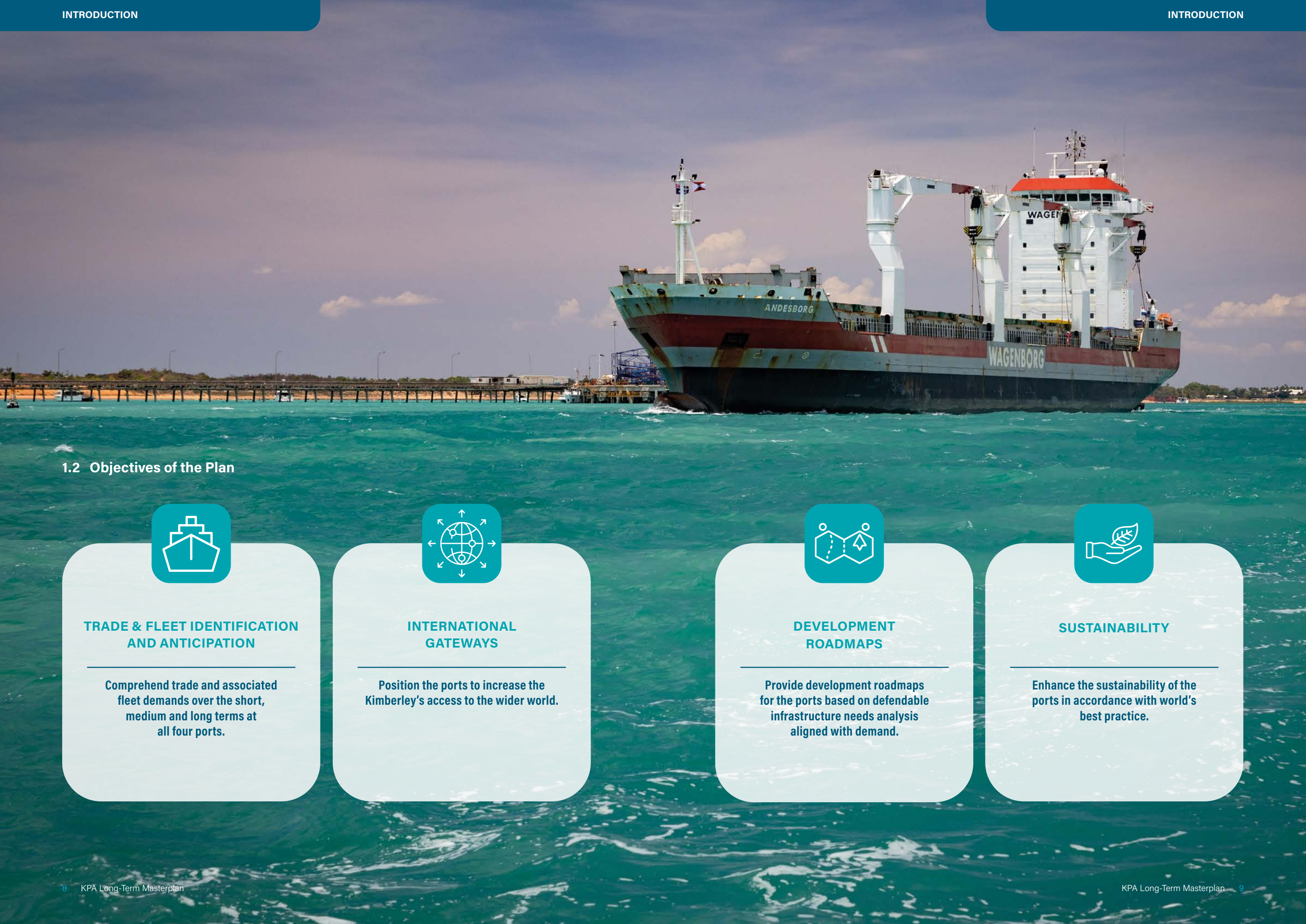
The Masterplan will be regularly reviewed and updated by KPA over time to ensure that it remains relevant and central to the strategy.

STUDY TIMEFRAMES



The Masterplan provides strategic context and direction in the management and development of all Kimberley Ports over the next fifty years



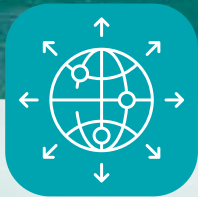


1.2 Objectives of the Plan



TRADE & FLEET IDENTIFICATION
AND ANTICIPATION

Comprehend trade and associated fleet demands over the short, medium and long terms at all four ports.



INTERNATIONAL
GATEWAYS

Position the ports to increase the Kimberley's access to the wider world.



DEVELOPMENT
ROADMAPS

Provide development roadmaps for the ports based on defensible infrastructure needs analysis aligned with demand.



SUSTAINABILITY

Enhance the sustainability of the ports in accordance with world's best practice.

2 THE MASTER PLANNING PROCESS

The Kimberley Ports’ Masterplan has taken approximately 18 months to complete and involved detailed research, study and analysis.

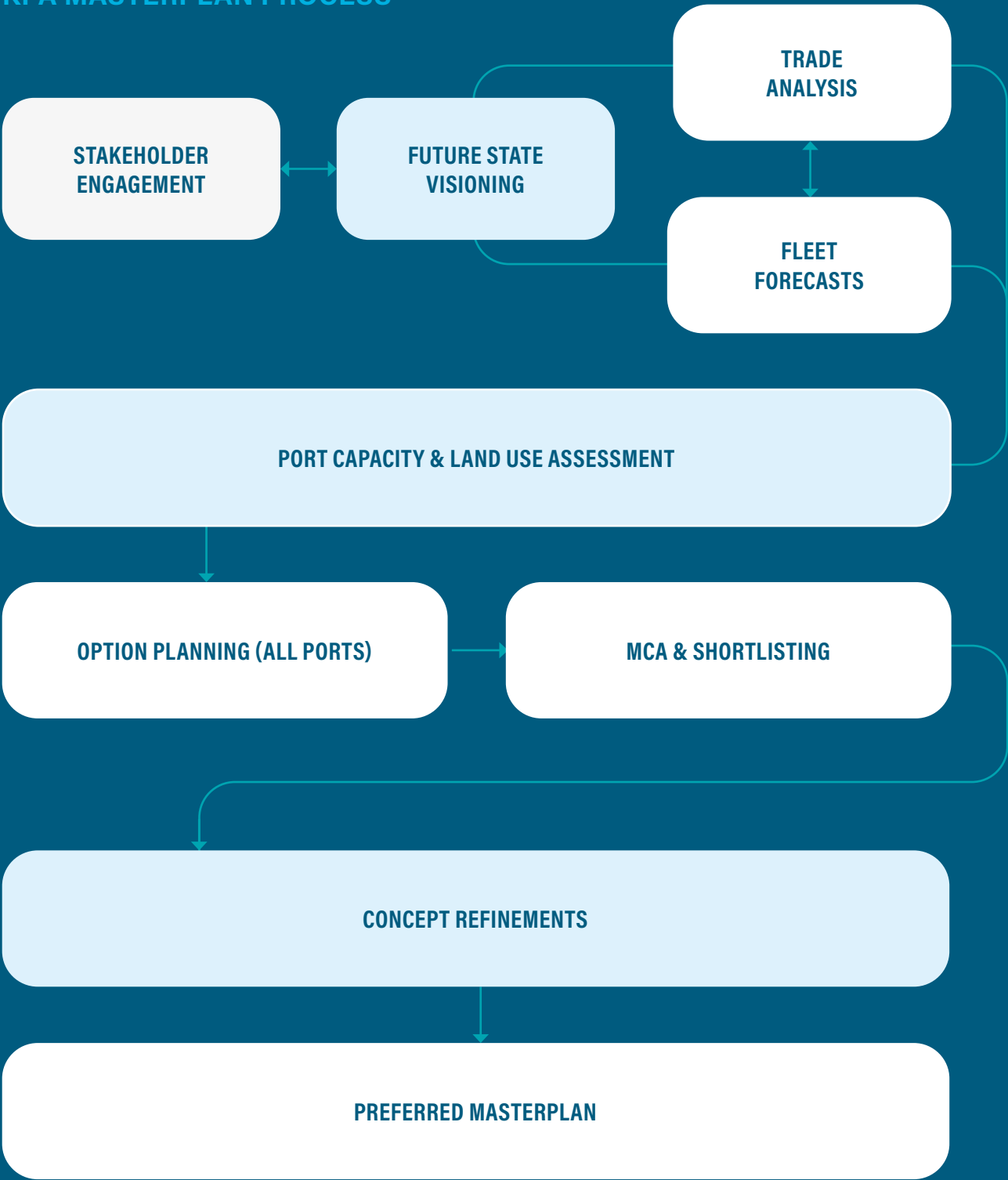
The adopted master planning process was designed to ensure that world’s best practice in strategic port planning was brought into the plan, whilst also ensuring that localised factors and complexities were fully considered.

Additionally, the various subtleties at each of the Kimberley’s ports needed to be investigated to ensure that the plan is holistic and not slanted towards any one port.

This has involved the delivery of multiple formal reports and memorandums across the span of the study.

The figure opposite illustrates the adopted planning process to this ultimate point.

KPA MASTERPLAN PROCESS



3 STRATEGIC CONTEXT

3.1 Study Elements

The Masterplan has involved extensive studies including:

Future State Visioning

An in-depth study into future geopolitical environments, consumerism trends, technologies and market characteristics (to inform future port operating environments, trade and fleet forecasts).

Trade Forecasts

Detailed trade forecasting across all current KPA trade types and review of emerging trade trends and types that might apply to the Kimberley in the future.

Fleet Forecasts

Complex first principle fleet forecasting across all fleet types expected internationally, and to call at Kimberley Ports into the long-term.

Capacity Analysis

Capacity modelling and analysis of all ports under KPA control to identify infrastructure needs into the future.

Option Determination & Analysis

Determination of development options at all KPA Ports in order to meet future trade and fleet demands, and to improve the commercial position of KPA.

Preferred Masterplan Development

Strategic & commercial review of options to determine a preferred Masterplan that meets KPA's port planning requirements and objectives out to 2076, and development of a delivery map.





Wider Governmental planning for the Kimberley Region is extensive and was referred to and considered during the development of the Masterplan

3.2 Consideration of Wider Strategic Planning

Throughout the planning process, various Governmental plans, strategies and papers were referred to and are of key relevance in the development and direction of the Masterplan, including:



3.3 Stakeholder Engagement

The master planning process included voluntary formal engagement with identified key stakeholders, allowing them to openly discuss any ideas, concerns, or requirements that they might have with relevance to the master planning exercise.

The engagement consisted of a questionnaire sent to all identified stakeholders (ports users or community) which was followed by interviews with a select group of key stakeholders.

Stakeholders were asked to provide a general introduction of their company or role, along with an overview of trade expectations (including both current trades and potential new trades). Further detail was then invited on vessel fleets, material transfer, storage requirements, landside transportation and services.

A reasonable volume of response was received through the stakeholder engagement, providing a sufficient snapshot of external stakeholders’ positions.



3.3.1 Governmental Inputs

In order to ensure that the Masterplan is cognisant of the principles and direction set out in the various Governmental planning documentation, stakeholder consultation was held with key governmental departments and other relevant third parties.

Some of the key aspects that were developed with governmental direction in mind include:



3.4 Critical Factors

3.4.1 First Point of Entry Status

The Kimberley is heavily dependent on its sea-based international and domestic trading linkages given the relative remoteness of the region.

During the course of the master planning study, KPA has been working with the Government to establish an FPOE solution for both Broome and Wyndham.

Gaining expanded FPOE determinations for Broome and Wyndham is expected to be a significant catalyst for international container trade in the Kimberley as it would connect the region to the

global supply chain and reduce supply chain costs for imports that are otherwise road-hauled from other WA ports.

FPOE status would also support the clearance and mobilisation of construction vessels, support vessels with cargo loaded at foreign ports, and the handling of general bulk cargo vessels used to ship bulk drilling products, additives and chemicals loaded overseas.

The value of the introduction of container handling in the Kimberley (facilitated by FPOE status) would generally come from exports. The inclusion of less than a container load (LCL) options at Broome

would allow small, localised communities to better trade internationally by reducing transport costs and provide reliable availability. Having better potential for essential supply imports in the wet season is also growing in importance.

In terms of cruise, whilst the Kimberley region was voted a top ten global cruise destination due to its natural attractions and sense of ruralness, the cruise market potential in the Kimberley remains largely untapped, and the North Western cruise market is dwarfed by the size of the East Coast market.

The attainment of FPOE status is a key influencing factor on future cruise trade statistics in the Kimberley.

Cruise calls to Broome are currently restricted to nationally based vessels. With FPOE status, this would allow cruise ships to call directly at Broome from other countries, opening the market up to larger and different international passenger demographics.

3.4.2 Changing Trade & Customer Needs

Trade at Broome is expected to increase by between 5 and 9 times from the current trade volumes by 2076, in addition to the visitation of up to 500 cruise vessels per year by then.

This growth is expected to be largely driven by mineral sand exports, with peaks in oil and gas vessel visitation also anticipated between 2030 and 2040.

Derby’s trade by 2040 is forecast to increase by up to 4 times current volumes, driven by trade associated with the decommissioning of the Koolan Island iron ore mine, along with potential trade associated with iron ore mining recommencing on Cockatoo Island, and growth in the aquaculture sector.

Into the longer term however, Derby trade is likely to be solely associated with aquaculture trade.

Wyndham trade in 2076 may increase by between 10 times and 25 times current trade volumes by tonnage. In addition, cruise vessel visitation could increase by over 3.5 times current statistics. Trade increases are expected to be largely driven by the potential for rare earth mineral exports from the region, along with possible hydrogen exports.

The recommencement of iron ore mining trade on Cockatoo Island is expected to drive up trade in Yampi Sound in the short to medium term. In the longer term, trade through Yampi Sound is likely to solely relate to cruise tourism, which may include up to 120 cruise vessel calls per year by 2070 should cruise trade be encouraged and supported.

This all drives requirements for expanding and changing infrastructure, and portside services at all four ports, which the masterplan has addressed.



3.4.3 Border & Environmental Protection

Operation LEEDSTRUM involves coordinated operations across the Maritime Border Command (MBC), including land, sea and air patrols. They have the authority to detain illegal fishers, confiscate vessels and catches and to prosecute offenders.

There is potential for MBC (ADF and ABF) related vessels to call at the Port of Derby and the Port of Wyndham, over and above the vessels in Broome. This could include stops by Armidale and Cape Class Patrol Boats.

In addition to the increase in illegal fishing, there is a risk of undetected arrivals (asylum seekers) arriving on the far northern WA coastline.

Any sustained increase in asylum arrivals may justify an increased security presence in the region. This is currently military-led under Operation Sovereign Borders. Again, it is possible that these vessels could call at Kimberley Ports.

3.4.4 Evolving Environmental & Sustainability Landscape

The increasing focus on ports and maritime sustainability, and changes in the environment, such

as those caused by climate change, are over-arching trends that are likely to have a critical impact on Kimberley Port operations over the coming 50 years.

Amongst the factors likely to impact the ports and their trade are the depletion of natural resources including those used as production and manufacturing inputs, an increasing focus on sustainable development, adaptation to advancing climate change and decarbonisation (including a shift in energy trades handled through the ports), the growing importance of social licence to operate, and the rising awareness of the role of natural ecosystems and biodiversity (and our need to value and protect them).

The port infrastructure of the future will need to be resilient to the future environmental challenges and will be required to achieve net-zero emissions.

The challenge that this presents is sizeable, however sound master planning and ongoing implementation of sustainability and environmental principles will enable the Kimberley’s ports to meet the challenges.

The improvement of port operations across the ports is also essential and increased use of sustainable energy will improve not only the port’s carbon footprints, but also help to reduce operating costs over time.

The masterplan includes the phased electrification of port operations to reduce emissions, as well as operational costs. It also ensures that the ports will be ready to accommodate increasingly clean vessels and vessel operations.

At the same time, the development of the ports will consider and mitigate the risks of sea-level rise where possible.

3.4.5 Strategic Defence

The North West of Australia is becoming increasingly relevant to the defence of the nation.

The Australian Government Defence Strategic Review (DSR) 2023 articulates the Australian Defence Force’s (ADF) defence reform, which is focused primarily on facing potential military threats from the north.

This might involve ports within the Kimberley being required to act as part of a secondary line of defence at some stage. Broome Port is already used by Navy vessels as a rest and resupply port during their patrols in the North West.

Fisheries and the Australian Border Force also maintain a permanent presence within Broome Port.

Military posturing to the north and an ongoing alliance with the US military has meant that the offensive capabilities of the Australian armed forces have been increasing.

Whilst the North West has traditionally played a lesser role with Australian and US forces, there are signs that this is now changing, and the implications of the fundamental military changes on the Kimberley’s ports could be significant.

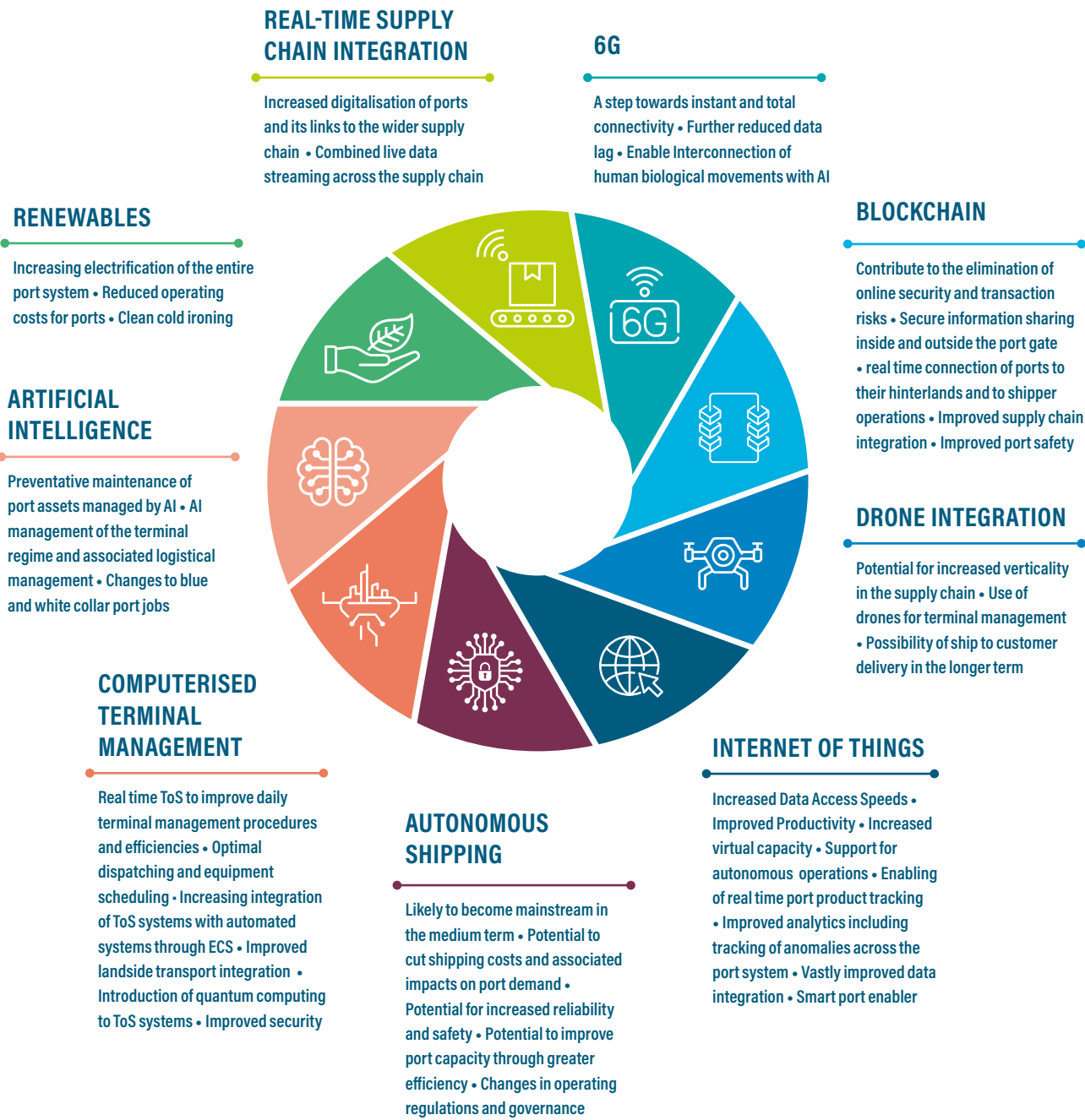
The Kimberley’s Ports could see an increase in naval, border protection and environmental protection activity in the coming years



3.4.6 Technological Advancements

The Masterplan has gone into significant detail in studying emerging port handling and management related technologies that might apply to the Kimberley’s ports over the next 50 years.

Whilst much of this is more likely to remain applicable to larger international ports in the near term, various technologies, initiatives and procedures were discovered to have potential relevance to Kimberley’s ports over time. Many of these relate in one way or another to ‘smart port’ and digitalisation initiatives. They include:



3.4.7 Accessibility & Operational Capacity

The Masterplan development included calculation of capacity at each of the Kimberley ports to handle forecast fleets and trade. This was done in order to identify future dimensional and capacity requirements within the channels, swing basins, berths and yards.

Results varied across the ports, but the key findings were as follows:

KEY FINDINGS

- Port of Derby must efficiently work within its channel and berth limitations.
- Once fully operational, the KMSB Terminal at Port of Broome will significantly add to the port’s capacity.
- Trade facilitation at Port of Wyndham could be enhanced by increasing berthside depth, which would remove the requirement for transshipping. Potential future trade (particularly rare earth minerals) would necessitate additional berth line.



3.5 The Future of the Kimberley Region

The Kimberley of the future will almost certainly operate, and function differently than it does currently.

More remote areas of Australia, such as the Kimberley, could offer a lifestyle alternative for both new and existing Australians in the future.

There is potential for the Kimberley and the wider State to witness positive transformational change through an embrace of disruptive factors.

As the Region changes and adapts to its future, these things will have an impact on trade and on operations at all four of the Kimberley's ports.

The growth of Perth could have a knock-on effect to the North of the State. However, this will be entirely reliant on changes occurring in the Kimberley, including:



Increased job opportunities as the primary attraction for migration to the area. This might come from technological local manufacturing changes, closer links to Southeast Asia, as well as across the Indian Ocean, import and export opportunities associated with clean energy production, sustainable tourism and commercial opportunities associated with military posturing in the North.



Affordable housing and access to governmental grants that encourage both interstate and international migration to the region.



Enhanced transport links, including intrastate, interstate and internationally. This includes Kimberley ports as well as landside transport links.



Improved public services and sustainable access to the local natural environment.



Anticipating and adapting to the impacts of climate change on the region.

BY 2076, KPA EXPECTS THE FOLLOWING SCENARIOS:

- Portions of waterfront land at the ports will fall within the Coastal hazard zone by 2076, particularly at Port of Broome and behind the existing Port of Wyndham wharf. Establishment and protection of assets within this zone have been considered to minimise infrastructure loss and port disruption through coastal protection and appropriate elevations of infrastructure.
- Demand for waterfront land at Broome could increase and adequate land planning now is required to ensure port future-proofing.
- Cruise passengers may demand improved access to the Kimberley and may come in greater numbers, creating logistical and environmental challenges. Cruise terminal capacity at Broome requires planning to meet this demand.
- Potential for commercial opportunities associated with military posturing to the north. This might result in some maritime trade related opportunities at Derby, Broome or Wyndham.
- The ports will be required to invest in new technologies to handle increased vessel autonomy and more integrated supply chains, including IoT, blockchain, AI and limited portside automation, but this is less likely to have a major impact in the Kimberley for some time.
- Yampi Sound has the potential to become an ecotourism hub, which could also serve the wider region in terms of tourism related commerciality.
- The ports of Wyndham and Broome will require expansion in terms of footprints and service offerings, both of which will be influenced and shaped by new technologies and increasing Indian Ocean trade (with India and Southeast Asia).
- Increasing focus on the defence needs of Northern Australia, which could involve enhanced significance for port assets.
- Wider industry agglomeration will occur around the ports of Broome and Wyndham on the assumption that the area is invested in by Government, putting upward pressure on lease rates in the longer term.
- Localised resilience to natural disasters is in part met by the ports as a means of transporting essential and emergency materials to the region via barge landings.
- The ports become part of the answer to smart environmental management and protection rather than part of the problem, through accommodation of clean vessel and landside commercial transport, net zero power consumption at the ports and sustainable port-related maintenance.
- The ports form an integral and protected primary mechanism in the regional and intrastate supply chain and become reliable centres for local employment and education. Whilst blue collar jobs will be replaced by AI and robotics in time, these will be replaced by higher paying white collar jobs.
- A reduction in the ports' environmental footprints is essential, and this will also assist KPA in reducing its operating costs and increasing profitability, whilst helping it meet its obligations under current and future legislation.





PORT OF BROOME MASTERPLAN

KPA Long-Term Masterplan

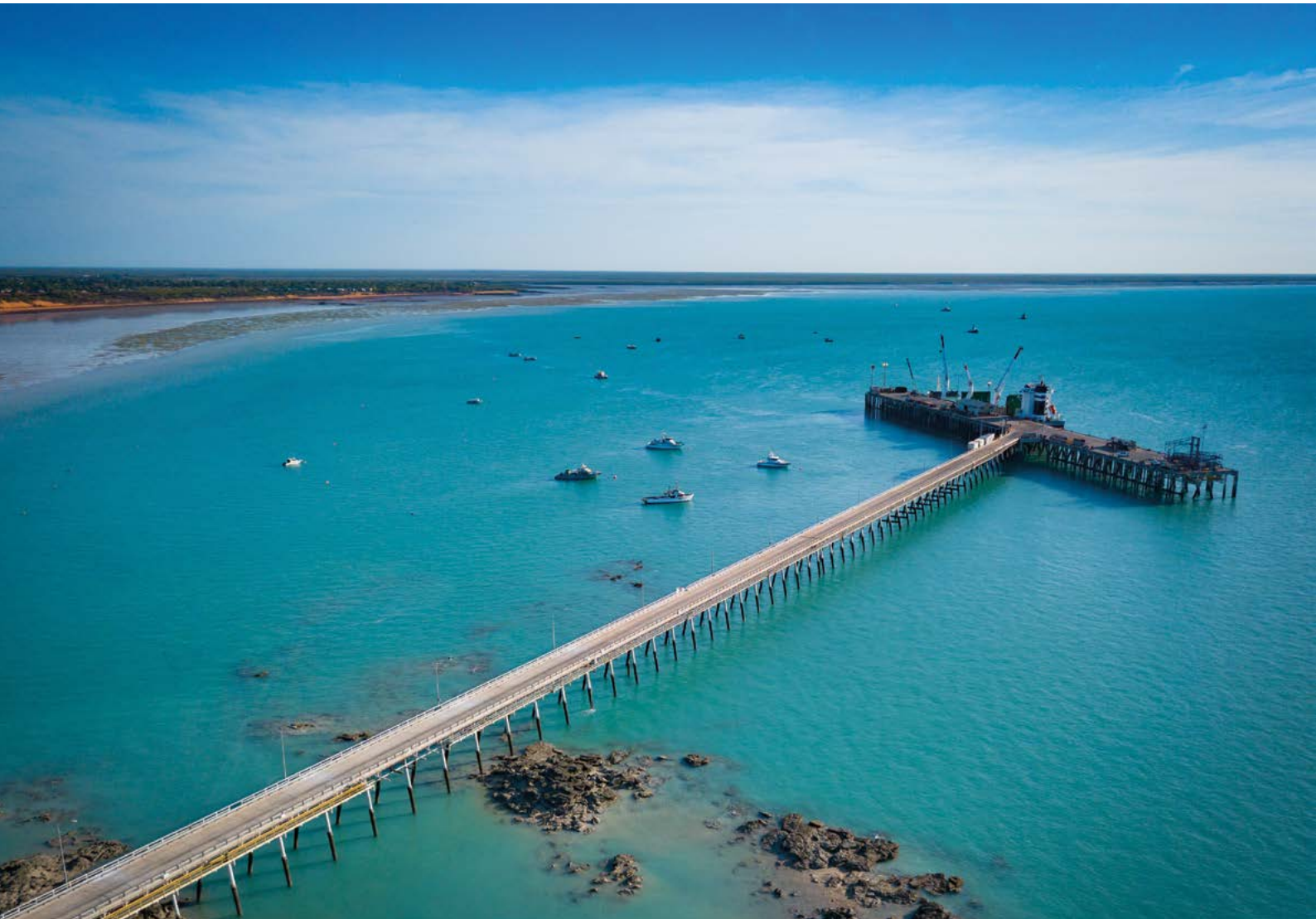
4 OVERVIEW

The Port of Broome has always held a central place in the town’s history and has played a pivotal role in the development of the North West of Australia. First developed in 1889, the port started out as a warehousing port without a wharf, restricted by tidal conditions.

The construction of the original wharf at Mangrove Point was completed in 1897, allowing passenger services to call at Broome, as well as pearling and cattle fleets on spring high tides. It wasn’t until 1966 that the deepwater wharf at Entrance Point was completed, substantially transforming the port’s ability to facilitate trade and further extensions and other investments have allowed this to increase over time.

Today, the Port of Broome continues its vital function within the Kimberley economy, with its multi-user wharf providing key services to regional offshore oil and gas operations in the Browse Basin, as well as servicing other trades including mineral sand export, cruise visitation, general cargo and petroleum. The port has also continued to service livestock, fishing and pearling trade to this day.

The future for the Port of Broome is bright, with significant growth anticipated and opportunities to enhance the experiences of port users and the public alike.



4.1 Operational Snapshot

THE KIMBERLEY’S PRIMARY PORT

597m total of existing berth line.		Maximum 50,000 tonne displacement vessels (Outer Berth), larger displacements via Harbour Master approval.	
Floating KMSB Terminal is adding 165m of berthline.		Up to 10m tidal range.	Surrounded by significant conservation areas.
Served by a singular access road (Port Drive).			
Landside access is shared with public traffic accessing public recreation sites.		Currently restricted FPOE approvals, however approval received to expand FPOE determinations, and negotiations are ongoing.	Increasing landside traffic leading to traffic conflict and associated safety risks.

4.2 Broome Study Findings



Forecast trade at Broome may increase from approximately 320,000tpa as per at the commencement of the port masterplan to almost 1.2mtpa in the trade base case, or 2.9mtpa under the high case trade profile by FY76. In addition, cruise vessel visitation of varying sizes could increase to almost 500 per annum by FY76 (high case).



Based on the trade forecasts, additional berthline over and above that created as part of the KMSB will be required to support the increasing trade task into the long term, along with suitable landside areas for both mineral sands and containerised storage.



Trade volume increases are expected to largely be driven by mineral sands, with peaks in oil and gas vessels also anticipated between FY30 and FY40.



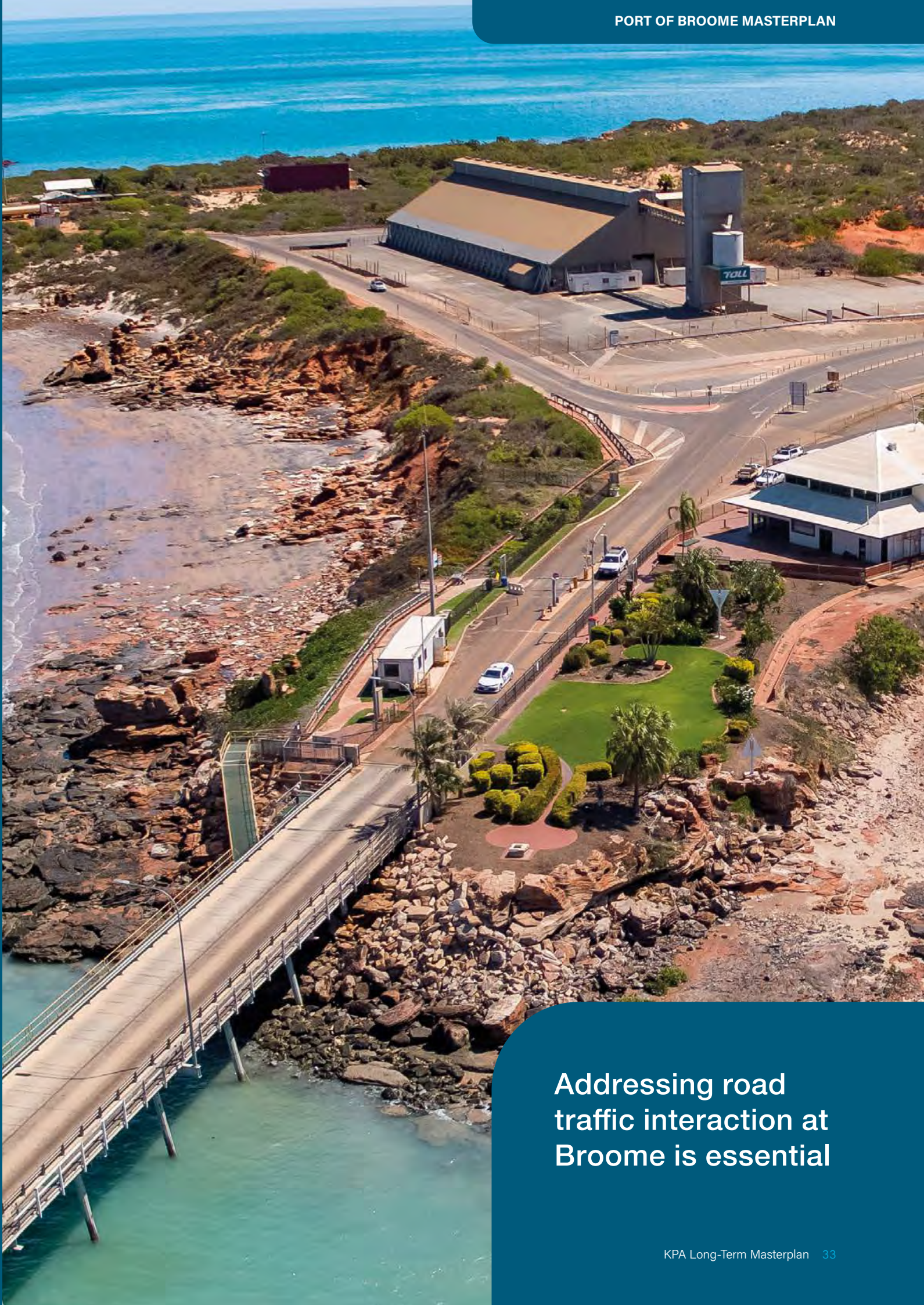
As a strategic port, Port of Broome has potential to handle future trade types (such as containers) as well as increases in cruise services and mineral sands volumes.



Landside capacity, storage and efficiency will need to increase at Port of Broome in line with trade volume increases.



Adequate management of recreational and commercial port traffic interaction around the port will help mitigate safety risks.



Addressing road traffic interaction at Broome is essential

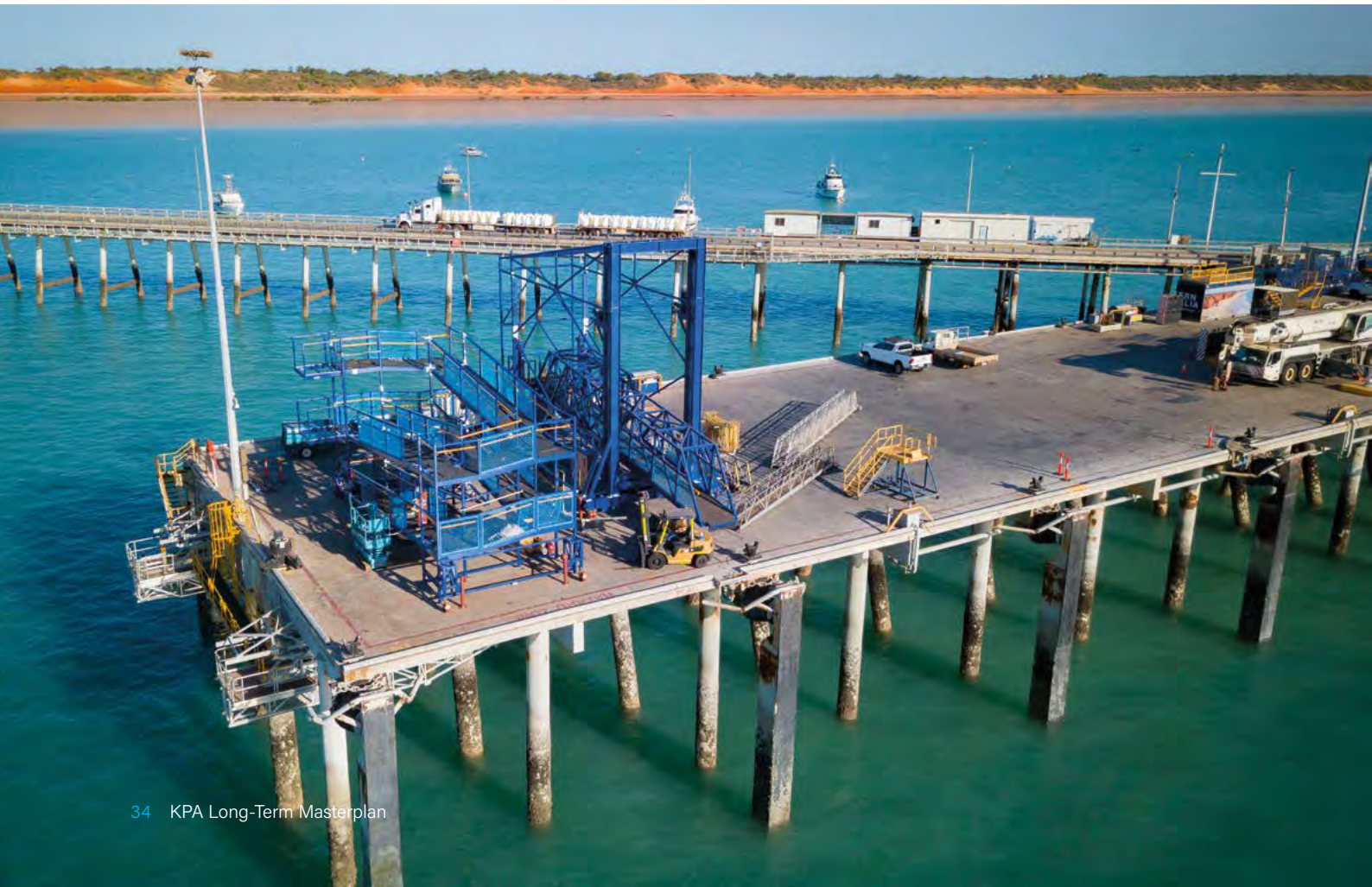
4.3 Broome Masterplan

The Masterplan facilitates the separation of public slipway movements to outside of the secure port area. Recreational traffic is diverted at Kavite Road and utilises Murakami Road to access Entrance Point. The proposed recreational access road remains within existing port boundaries.

In the longer term and towards the end of the project planning horizon, there may be a potential need for a further

increase in capacity (dependent on trade eventualities). If required, this could either be achieved through the introduction of a bulk conveyor to berth, or through the establishment of an additional berth, and would be subject to a detailed Business Case at the time.

The snapshot on the next page outlines the masterplan for Port of Broome which is designed to meet its requirements into the future.



SNAPSHOT



The construction of a new roundabout to facilitate truck turning and access to the berths.

Improved separation between port related activity and public access to improve safety and efficiency through public and port road delineations and developments.



Relocation of the port gate to a position between Kavite Road and Lot E3 in order to maximise the secure port area, and separate traffic.



Replanning of precincts to ensure adequate space for the accommodation of existing and emerging trades.



Development of additional berth capacity in the longer term, in line with trade demand.



PORT OF BROOME MASTERPLAN - NEAR TERM



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PORT OF BROOME MASTERPLAN – SHORT TO MEDIUM TERM



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PORT OF BROOME MASTERPLAN - ULTIMATE



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PORT OF DERBY MASTERPLAN

KPA Long-Term Masterplan

5 OVERVIEW

Port of Derby is a regional tidal port within the Gulf of King Sound. The port must accommodate the highest tidal range in Australia.

The original wharf at the Port of Derby was constructed in 1885 and serviced wool and pearl shell exports from the Derby region. The jetty that exists today was constructed in 1964 and was predominately used for localised passenger services, consumable and fuel imports.

Today, the port is used predominantly for barged supplies to and from the iron ore mines at Yampi Sound, as well as for the handling of supplies and trade to and from the Cone Bay Aquaculture site.

In addition to handling trade, the jetty has become a social centrepiece for the town, used by locals for fishing and as a tourism spot.



5.1 Operational Snapshot

VALUABLE LOCAL SERVICES PORT

Up to 11m tidal range (semidiurnal) allowing a maximum of 3 to 4 hours at berth.	U-shaped wharf with a redundant shiploader, and a supporting conveyor at the southern end.	Under lease and management agreement with the Shire of Derby West Kimberley (SDWK).
Dual-lane recreational boat ramp.	Shiploader and associated conveyor beyond repair.	Overall berth length of 195m.
Wharf currently used to load ice and fish food, to unload fishing catch and to provide fuel to Koolan Island.	The northern portion of the wharf is open to the public for recreational use and is an important facility for the local community.	Barge ramp used for transfer of equipment and supplies to and from Koolan and Cockatoo Islands (Yampi Sound).

5.2 Derby Study Findings



Forecast trade at Derby may increase in the short term from approximately 50,000tpa at the commencement of the port masterplan to up to 213,000tpa (high case trade - FY40), driven by trade associated with the decommissioning of the Koolan Island iron ore mine, along with potential trade associated with iron ore mining recommencing on Cockatoo Island, and growth in the aquaculture sector.



Into the longer term, forecast trade through Derby is likely to be associated with aquaculture trade, which is anticipated to range between 5,000tpa - 122,000tpa, dependent on growth in, and production from, the aquaculture area.



Port of Derby provides an important link between the sea and the local Derby community and also contributes to tourism.



Port of Derby services local industry by facilitating maritime-based trade.



Derby provides a valuable service to the local community and industry

5.4 Derby Masterplan

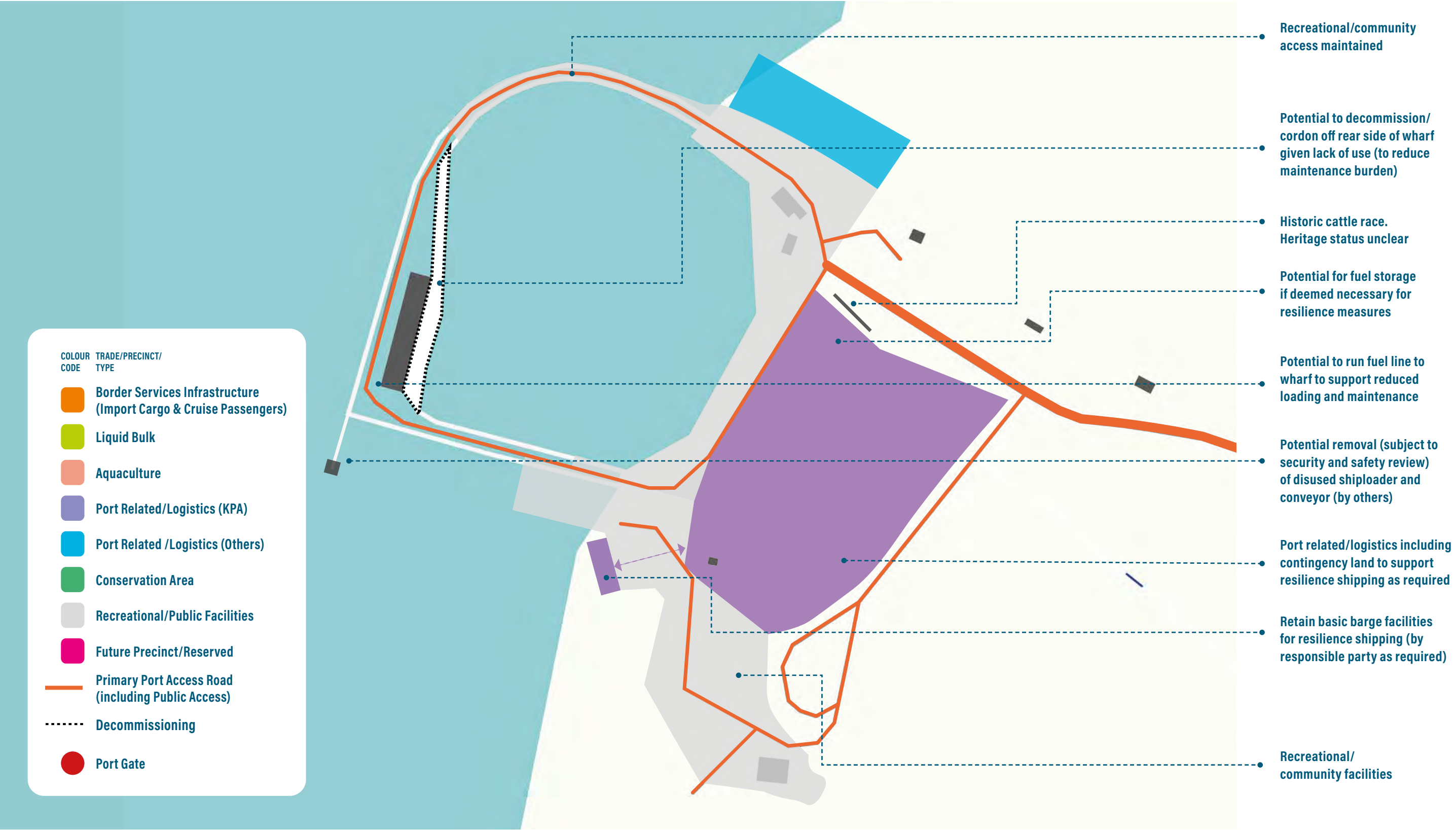
The Masterplan for Derby retains the full berth line for port use.

This might be accompanied by limited decommissioning of the structure behind the wharf shed, along with modifications to fuel transfer to support a rationalised maintenance regime with some wharf loading downgraded. These measures would be subject to future cost benefit analysis.

The masterplan is presented in the following figure. Phasing applies less at Derby than the other ports, however the initiatives noted in the masterplan might eventuate in the near to short term, largely depending on the outcomes of resilience planning.



PORT OF DERBY MASTERPLAN



Images and boundaries shown are approximated only, © Mapbox, © OpenStreetMap



PORT OF WYNDHAM MASTERPLAN

KPA Long-Term Masterplan

6 OVERVIEW

The Port of Wyndham is a regional port within the Cambridge Gulf in far north-western Australia, approximately 140km (by road) from the Northern Territory border.

The Port was originally established in the mid 1880’s with the jetty located at Anton’s Landing. A new deeper water jetty was constructed in 1917 to service meat works’ vessels. The old jetty was then later replaced by the existing ‘horseshoe’ structure in the 1970’s. The meat works ceased operations in the mid-1980’s and this trade was replaced by live cattle exports to Asia from the East Kimberley.

The Port of Wyndham has also seen other trades come and go, including passenger trade until 2013 and sugar until the 2000’s.

Today, the Port of Wyndham is thriving, with nickel, iron ore, livestock and agricultural exports, and diesel imports constituting the major trade types.



6.1. Operational Snapshot

STRATEGICALLY LOCATED BULK & CRUISE PORT

U-shaped jetty with a single berth face of approximately 314m.	Utilised by up to 3 vessels simultaneously (LOA permitting).	Barge loading facility (BLF) owned by KMG with a capacity of 2.5mtpa used for iron ore transhipment.
Public ‘Fisherman’s Jetty’ to the south.	Under lease and management agreement with Cambridge Gulf Limited (CGL) until 2031.	Currently limited to 200m LOA, 8-8.5m draft, 34,000T displacement vessels.
Historic shiploader is to be decommissioned and the port is currently reliant on geared ships for bulk cargo handling.		KPA have been funded by the State to develop FPOE supporting facilities and this project is currently underway.

6.2 Wyndham Study Findings



The trade and strategic outlook for Port of Wyndham is good with opportunities identified to support existing trades, introduce new trades and further improve the port's operations.



Forecast trade at Wyndham may increase from almost 200,000tpa and 27 cruise vessels at the commencement of the port masterplan to over 2.1mtpa and 67 cruise vessels (base case), or 5mtpa and 99 cruise vessels under the high case trade profile for FY76.



Trade increases are expected to be largely driven by the potential for rare earth and other mineral exports from the region, along with potential hydrogen exports.



The port is currently reliant on transshipment or the use of geared vessels which limits its potential.

6.3 Wyndham Masterplan

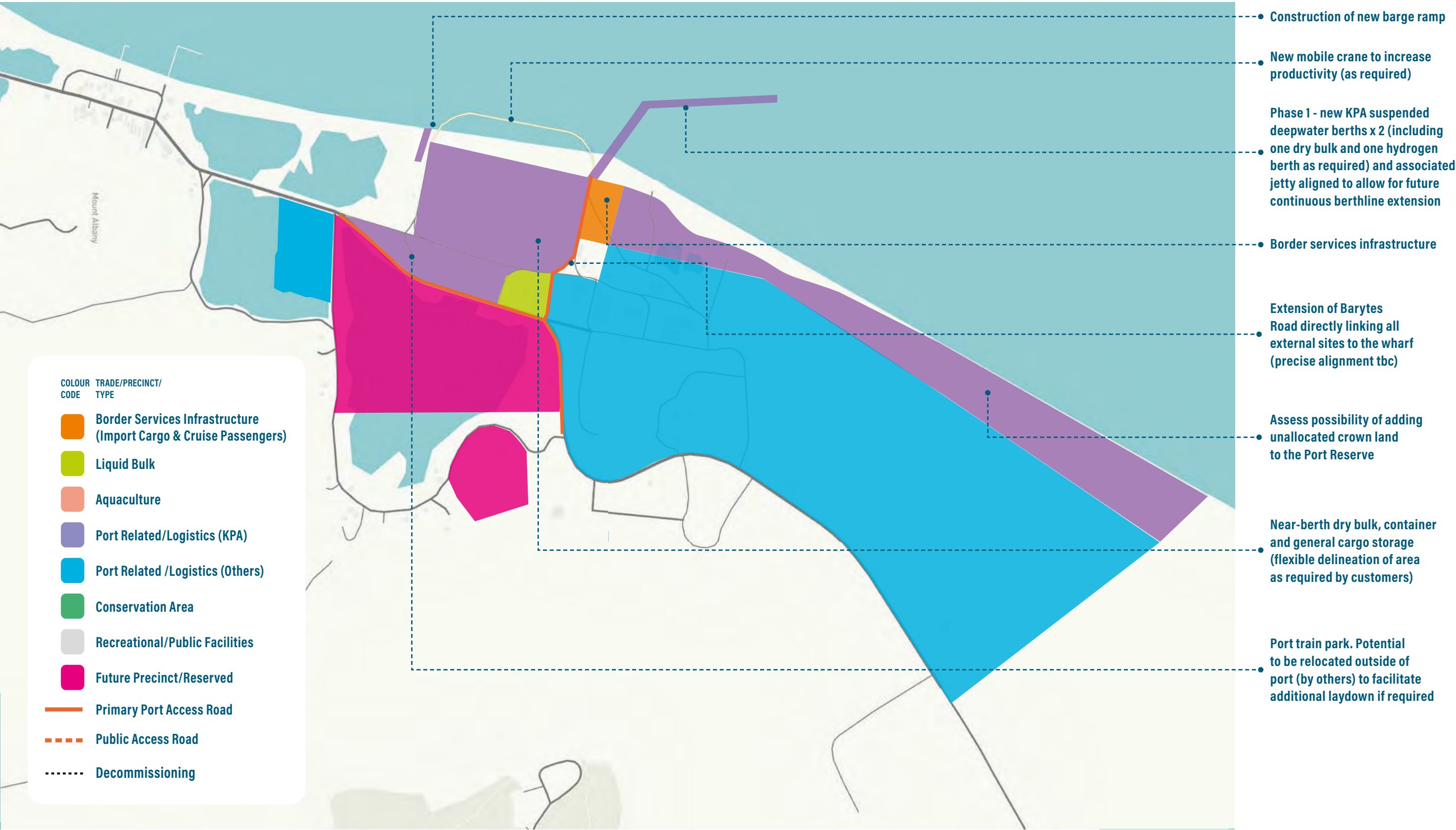
The Masterplan for Wyndham involves the development of KPA berthside infrastructure to better support the growing trade and fleet task, eliminating the need for transshipment, centralising the port task and increasing the utilisation of KPA land and associated returns, whilst improving access to non-KPA, port related land.

This will assist the port to accommodate its growing potential and to further enhance the experience of port users. The masterplan phases development in line with trade expectations over time.



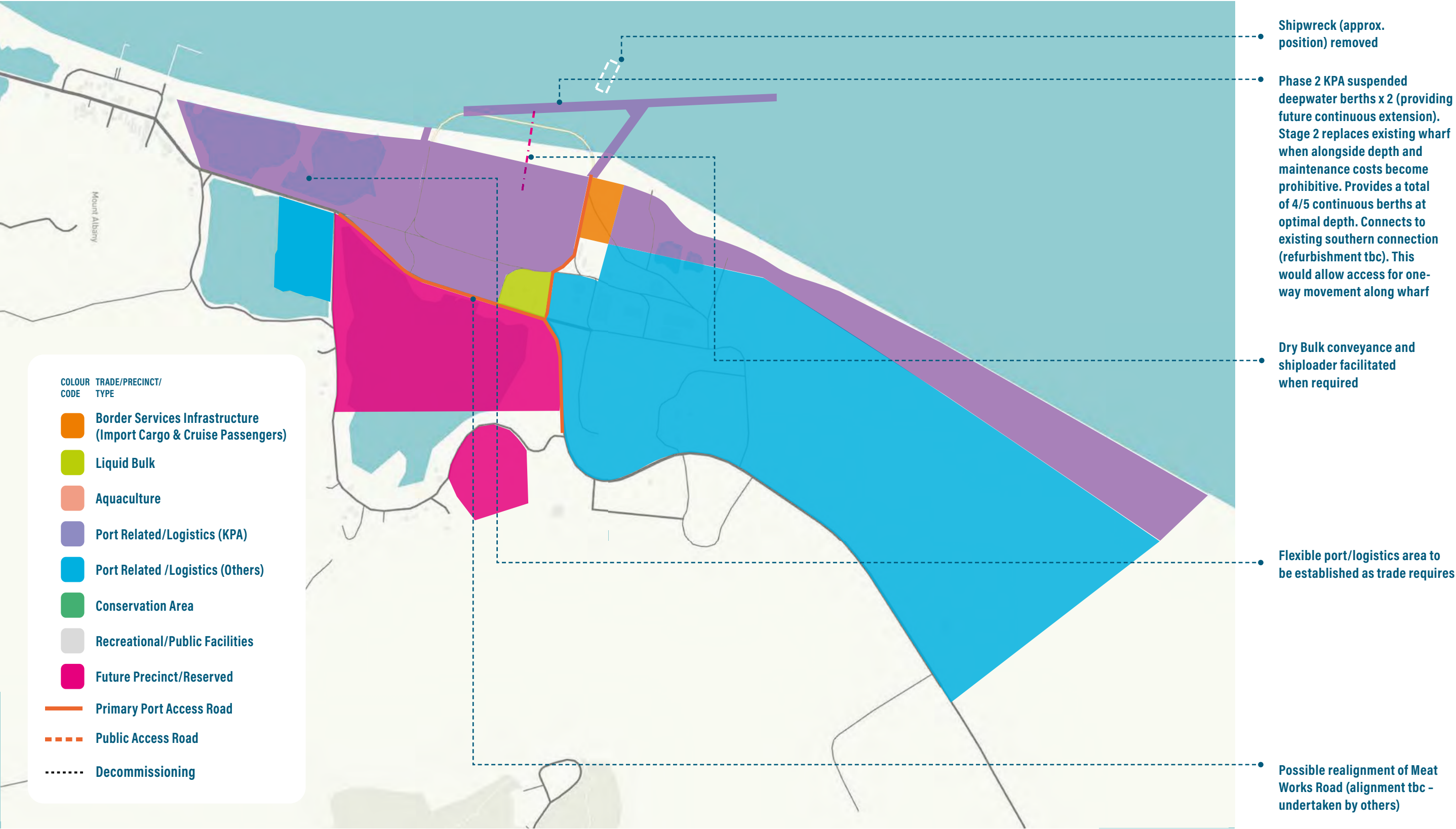
The Port of Wyndham is set to experience considerable growth in both bulk and cruise trade

PORT OF WYNDHAM MASTERPLAN - SHORT TO MEDIUM TERM



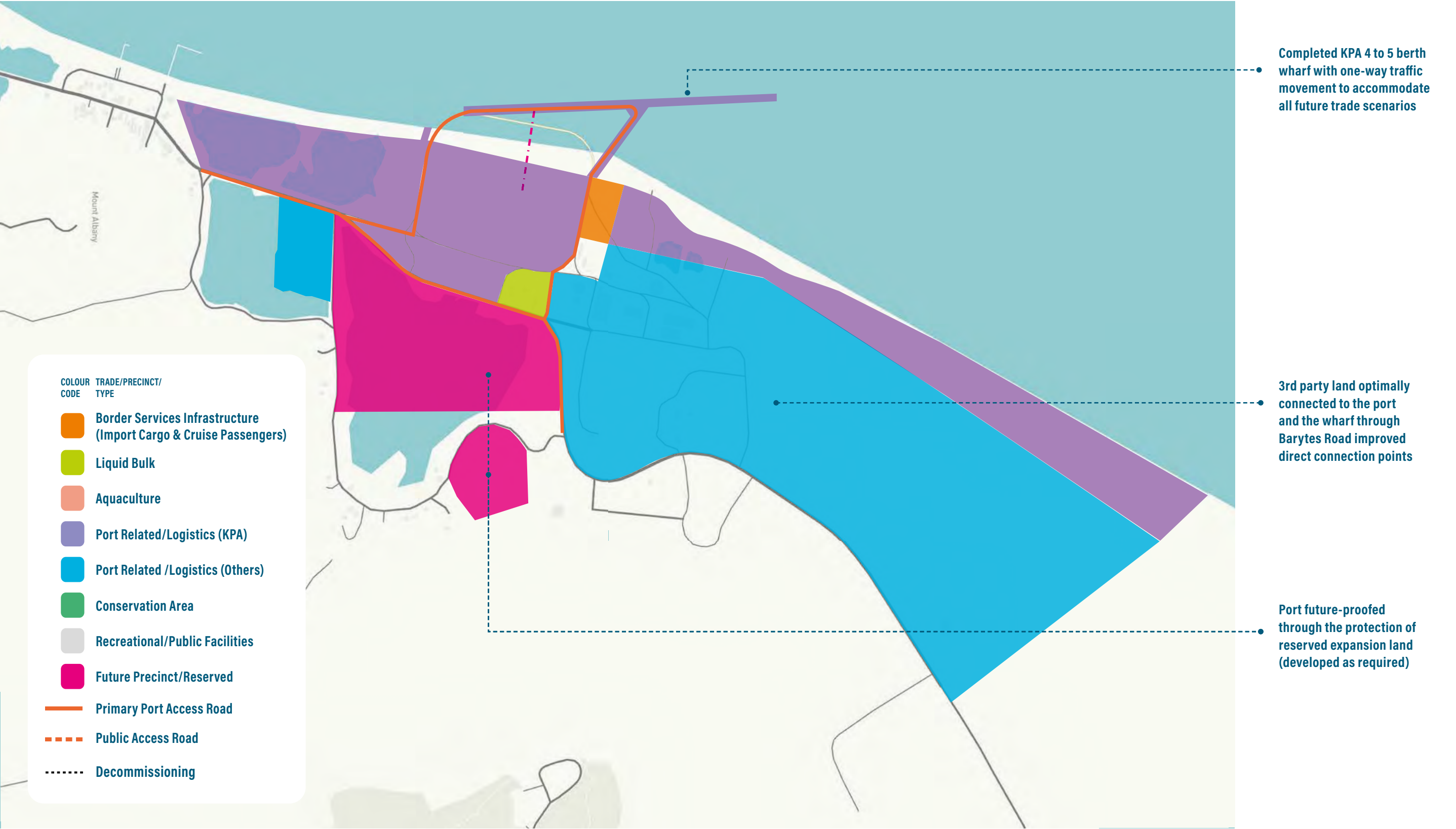
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PORT OF WYNDHAM MASTERPLAN - MEDIUM TO LONG TERM



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PORT OF WYNDHAM - ULTIMATE



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YAMPI MASTERPLAN

KPA Long-Term Masterplan

7 OVERVIEW

The two ports of Yampi Sound were historically created to service iron ore mining on the Koolan and Cockatoo Islands. The ports now continue this service with KPA currently providing regulatory control of port operations in Yampi Sound. The potential to utilise the facilities for tourism in the longer term has also been discussed.



7.1. Operational snapshot

MINING SERVICE PORTS WITH TOURISM POTENTIAL

CIM operates a new transhipment barge loading facility on Cockatoo Island.		Infrastructure built and maintained by others. Executed lease and licence with Crestlink who are proposing to develop a multi-use marine facility on Cockatoo Island.
Mining lease on Koolan Island to cease in the near future.	KPA responsible for jetty licences on the Islands.	Potential for sustainable cruise tourism identified.
Koolan Island single dolphin berth (approximately 385m in length) with a shiploader and conveyors.	Cockatoo Island resumed iron ore exports in April 2025 via a transhipment operation.	Separate Koolan Island barge landing on reclaimed land is utilised to receive supplies to and from Derby.
Existing Cockatoo Island dolphin berth and associated shiploaders will be demolished.		Historically used for the export of iron ore.

7.2 Yampi Study Findings



Forecast trade at Yampi may increase in the short term from approximately 2.5mtpa at the commencement of the port masterplan to up to 3mtpa of bulk and a supporting barge task of around 100,000tpa (high case trade - FY40).



This is driven by potential trade associated with iron ore mining recommencing on Cockatoo Island. Into the longer term, forecast trade through Yampi is associated with cruise trade, which may include up to 120 vessel visits per annum by FY76.



The development of options for Yampi Sound considered whether it would be beneficial for KPA to inherit existing berthing infrastructure in part, or in full, in order to accommodate cruise vessels.

7.3 Yampi Masterplan

The master planning study has revealed that the Port of Yampi Sound has solid trade potential in the short-term through iron ore trade, but also that it’s longer-term future is positive with the potential for sustainable cruise related tourism.

The Masterplan is based on KPA continuing its current responsibilities and role within Yampi Sound; that is, the role of ‘regulator only’ of the Port without investment in infrastructure or the commercial orientation of the islands.

KPA have signed Terminal Agreements on Cockatoo Island.

The master planning work has resulted in a relatively clear direction for what the future commerciality of the islands could be beyond mining; that being predominantly tourism based and a possibility of support to other industries. In accordance with the Masterplan, KPA would continue its role as a trade facilitator in a regulatory capacity.

The proposed Masterplan maps for both islands are shown in the following figures.



Whilst Yampi revolves around mining, its longer-term future will likely rely on tourism

KOOLAN ISLAND MASTERPLAN

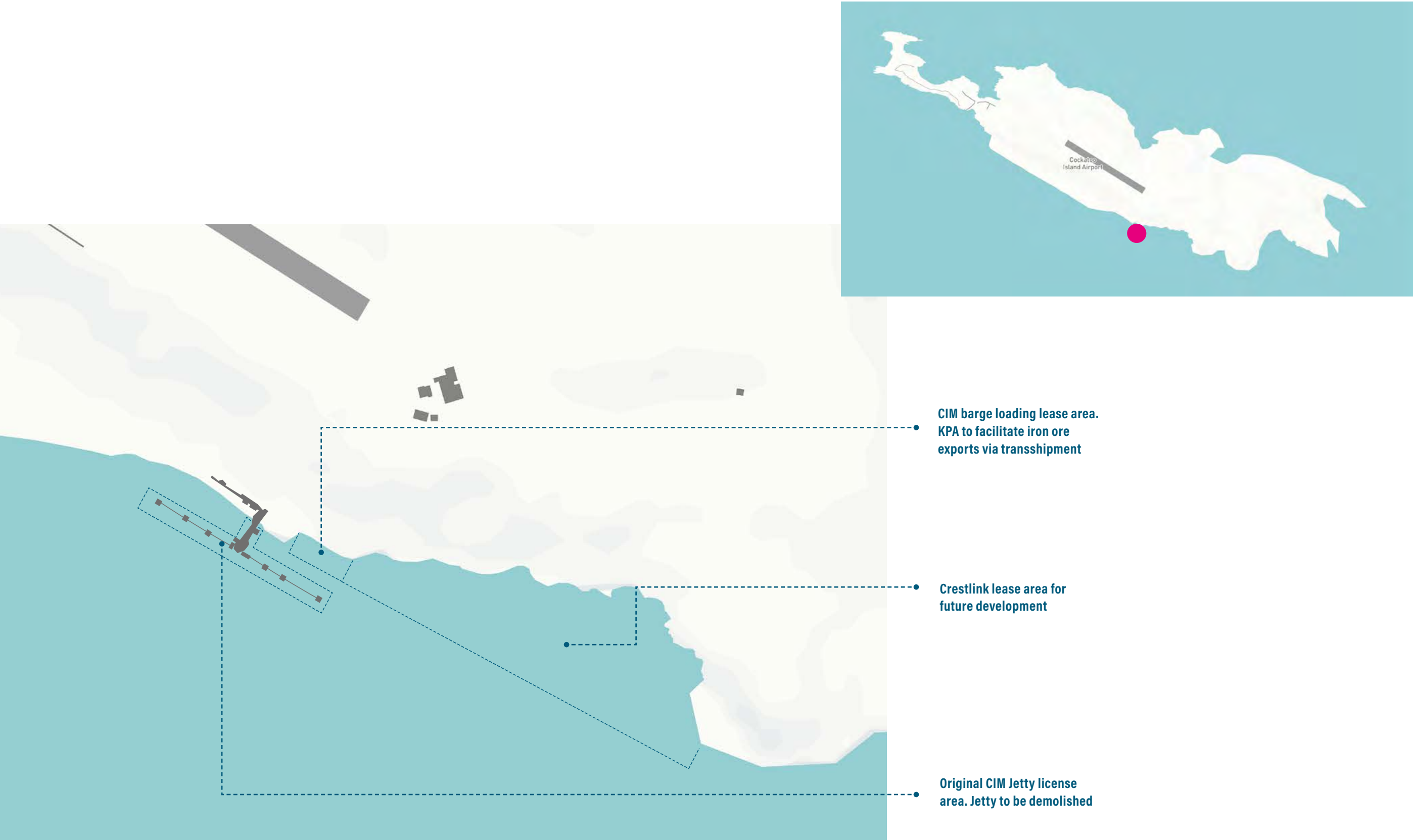


Establish barge bunkering services in the Koolan Channel

Develop KPA owned aids to navigation via installation of new AtoN or inheriting MGX owned AtoN

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COCKATOO ISLAND DEVELOPMENT PLAN



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SUMMARY

KPA Long-Term Masterplan

8 ACTION PLAN SUMMARY

The following tables summarise the key factors and proposed solutions for each port.

BROOME	
FACTOR	SOLUTION
GLOBAL CONNECTIVITY FOR BROOME	Gain FPOE status to allow Broome to better connect to Asia and beyond
SAFETY AND SECURITY IMPROVEMENTS	Relocation of the Port Gate to separate port and public traffic
MORE EFFICIENT ROAD MOVEMENTS	Roadworks, including new roundabout to facilitate increased port traffic to the KMSB and wider port
SAFEGUARDING FUTURE CAPACITY	- Relocation of the Port Gate will maximise the secure landside area of the port as sea level rise threatens more waterfront in time - Development of the KMSB and potential future berth developments will safeguard berthside capacity - Rationalisation of leases on the port footprint to improve capacity and lease potential
CARBON FOOTPRINT REDUCTION & ENVIRONMENTAL PROTECTION	- Development of strategies to electrify the port over time and introduce more efficient operating procedures (subject to business case) - Protect and enhance surrounding conservation areas
SERVING THE COMMUNITY	- Improve waterfront accessibility for the public through improved roads - Facilitate commercial opportunities for the Yawuru people by enabling port connectivity with Yawuru land

DERBY	
FACTOR	SOLUTION
PROTECT THE FUTURE OF THE PORT	Retain the berthline of the port for port related use
REDUCE OPERATING COSTS TO INCREASE COMMERCIAL VIABILITY (SUBJECT TO FURTHER STUDIES)	- Potential limited decommissioning of unviable wharf structure behind the wharf shed - Modifications to the fuel transfer system to reduce maintenance demands - Reduce wharf load ratings where appropriate
SERVING THE COMMUNITY	- Maintain and enhance waterfront accessibility for the public - Further enable the port to contribute to regional natural disaster resilience including potential fuel storage development, landside storage contingency and barge facilities
LONGER TERM TRANSFORMATION POTENTIAL	Possible longer term transition to a community waterfront facility should port related trade cease

WYNDHAM	
FACTOR	SOLUTION
GLOBAL CONNECTIVITY FOR WYNDHAM	Gain FPOE status to allow Wyndham to better connect to Asia and beyond
CENTRALISE THE PORT ZONE	Develop the port to better manage it as a cohesive precinct and increase utilisation across its footprint
ENHANCE AND FUTURE-PROOF CAPACITY	- Develop berthside infrastructure to support growing trade and fleets, eliminate the requirement for transhipment and improve operational efficiencies - Develop a new barge ramp - Develop a new port train park - Introduce new handling equipment to increase productivity
MORE EFFICIENT ROAD MOVEMENTS	Roadworks, including potential extension and realignment of Barytes Road and Meat Works Road to better connect all external and internal port related areas
SUPPORT NEW AND EMERGING TRADES	New berths to service increased dry bulk and hydrogen trade
CARBON FOOTPRINT REDUCTION & ENVIRONMENTAL PROTECTION	- Development of strategies to electrify the port over time and introduce more efficient operating procedures - Protect and enhance surrounding mangrove

YAMPI SOUND	
FACTOR	SOLUTION
CONTINUE KPA'S GOVERNANCE ROLE	- Maintain current port authority regulator role within Yampi Sound - Manage terminal management agreements - Oversee the demolition of the CIM Jetty on Cockatoo Island (regulatory role only)
ENHANCE CAPACITY	- Establish barge bunkering services in the Koolan Channel - Develop navigational aids in the Koolan Channel - Facilitate transhipment and management of iron ore exports on Cockatoo Island
LONGER TERM TRANSFORMATION POTENTIAL	Possible future transition to tourism-based services once mining related trade ceases

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**KIMBERLEY
PORTS**
AUTHORITY



Kimberley Ports Authority

Lot 549 Port Drive,
Broome WA 6725



info@kimberleyports.wa.gov.au



61 8 9194 3100



61 8 9194 3188

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 **BLACK QUAY**

