



SOUTHERN PORTS
ALBANY BUNBURY ESPERANCE

Port of Bunbury

Port Master Plan





Foreword

Home

Section 1

Section 2

Section 3

Section 4

Southern Ports has developed a Port Master Plan (PMP 2022) for the Port of Bunbury. The Plan has assessed potential trade for a 30+ year planning period, considering current and future trade opportunities and how this could influence development within the Port.

This Port Master Plan (2022) has been developed considering the foundation analysis provided by Southern Ports Inner Harbour Structure Plan (IHSP 2009) and Revised Inner Harbour Structure Plan (RIHSP 2019) that provide aspirational port development planning context.

Concept development items have been produced for short-, medium-and long-term horizons within the 30+ year planning timeframe, with the process to reach these development items outlined.

The Port Master Plan for the Port of Bunbury seeks to set out how particular areas can (as opposed to will) develop and redevelop into the future. The document is not considered to be a statutory planning document, but rather is available as a strategic tool to support development and investment decisions within the Port.

This plan was endorsed by the Board of Southern Ports on 16 March 2023.



Section 1: Introduction and Background

This section summarises the strategic Port Master Plan objectives, outlining what a Master Plan is and what benefits it can offer. Southern Ports’ values and the sustainability considerations imbedded into the Port Master Plan are described.

A snapshot of the Port through time is also provided, demonstrating how the Port of Bunbury came to be and illustrating historical trade throughput.

Section 2: Port Master Planning Process

The process undertaken to produce the Port Master Plan is outlined in this section, providing an overview of the stages and methodology.

Stakeholder engagement is a key part of the Master Planning process. As such, a summary of some of the key outcomes from engagement activities is provided, leading into a summary of the opportunities and constraints specific to the Port of Bunbury.

Section 3: Trade Forecast Scenarios and Infrastructure Needs

Trade is one of the core influences behind the Port Master Plan. This section outlines how differing trade scenarios were developed and how these influence infrastructure and land requirements within the Port.

Section 4: Bunbury Port Master Plan

This section defines the Port Master Plan development items, outlining how the Port could look in the future considering short-,medium-, and long-term infrastructure and development solutions. A breakdown of each item is provided describing the scope of each item.

A brief discussion around the future of Ports and a document conclusion is also provided in this section.





01.

Introduction and Background

The Port of Bunbury is approximately 175 km south of Perth, supporting the greater South West region. Originally known as 'Port Leschenault' prior to 1836, the Port of Bunbury became known for exporting hard wood by 1871. Since then the Port has undergone many changes to support the varied industries that utilise the Port. Southern Ports is responsible for managing the Port of Bunbury facilities (along with the Ports of Albany and Esperance).





Strategic Port Master Plan Objectives

Port Master Plan Objectives

The Port of Bunbury PMP aims to:

- Clarify and further define Southern Ports’ strategic planning for the Port over a 30+ year horizon;
- Guide and facilitate future developments, including infrastructure developments;
- Reserve Port and other land for future developments, if required;
- Align with the overarching development plans prepared for Bunbury, the South West region and wider Western Australia;
- Consider opportunities, constraints and risks from various perspectives such as trade, maintenance and port expansion, environmental, and social aspects; and
- Be flexible to allow updating in future, with ever changing planning parameters.

What is a Port Master Plan?

A Port Master Plan is a document which describes a high level development concept for a Port, seeking to:

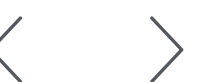
- Set out how a particular area can (as opposed to will) develop and redevelop in future;
- Set out objectives and strategies to manage development and change over time; and
- Define what is important about a place and how its character and quality can be conserved, improved and enhanced.

What are the benefits of a Port Master Plan?

An effective Port Master Plan will:

- Create additional economic value via increased industry and investment confidence;
- Assist in overall supply chain management by integrating the Port into broader network considerations, and ensuring that vital infrastructure is delivered when and where it is needed (via well-considered staging options);
- Maximise significant economic and productivity improvements through efficient management of critical infrastructure delivery and protection;
- Aim to minimise environmental impact, and where possible enhance environmental protection by identification of critical environmental values early in the design process; and
- Help to inform Port users, employees and local communities as to how they can expect to see the Port develop into the future.

The Port Master Plan is used to coordinate the preparation of more detailed plans, and guide the Port development planning process in the short to longer term (30+ years).



Southern Ports Values

Southern Ports is focussed on creating optimum value for all stakeholders which includes for best practise sustainability principles.

Our Vision

Strong regional ports, strong regions.

Our Values

- Safety: Demonstrating an uncompromising commitment to safety at all times.
- Integrity: Holding high standards of conduct and decision-making to ensure confidence and trust.
- Teamwork: Working as one team to achieve a common goal.
- Future focus: Building a sustainable future aligned with our vision, while representing our history.
- Accountability: Empowering people to perform well, demonstrating initiative and acting responsibly.

Southern Ports has adopted and operates to fulfill the roles of port set out in Figure 1.1 that relate to the key overarching themes of Prosperity, Environment and People and Partnerships.



Figure 1.1
Roles of Ports
Source: SP SDP 21-30



Sustainability

Sustainability Considerations & Alignment

Sustainability has been a key consideration during the PMP process. 'Core Sustainability Principles' were established and considered during the PMP project – seen below in Table 1.1.

Consideration and alignment between items below is set out in Table 1.2 :

- Key 'Options Analysis' considerations.
- Southern Ports Sustainability Themes.
- Key 'Materiality Issues' (identified during the project stakeholder survey) and the relevant UN Sustainable Development Goals.

The preferred PMP solution has included consideration of these matters - ensuring an enduring, sustainable 'plan' which meets the expectations of Southern Ports and the wider community.



'Core Sustainability Principles' to meet:	Achieved in PMP?
Drives Land Use Efficiency	✓
Facilitates Economic Growth	✓
Ensures Resilient & Adaptive Infrastructure	✓
Manages the 'Port-City' Interface	✓
Included Early Consideration (& subsequent protection) of Environmental Values	✓
Identifies & Protects Critical Supply Chains	✓
Included Stakeholder Engagement, Inclusiveness & Transparency	✓
Maintains Port Safety & Security	✓

Table 1.1 Core PMP Sustainability Principles

Sustainability Alignment			
Sustainability Theme	PMP Materiality Issues	United Nations SDGs	PMP 'Options Analysis' Considerations
Prosperity	<ul style="list-style-type: none"> • Facilitating/Supporting Trade Growth & Diversity • Supporting & Activating City, Shire, Regional and WA Economic Activity • Providing Confidence for Investment within the region 		Enabling infrastructure and regional development
Partnerships Prosperity	<ul style="list-style-type: none"> • Driving Port Efficiency • Clarifying the 'Vision' for the Port of Bunbury • Exploring partnerships/opportunities for future development 		Planning & Delivery
Planet Prosperity	<ul style="list-style-type: none"> • Focusing on Safe and Clean Shipping • Driving Port Efficiency • Clarifying Dredging/Sediment Management projects 		Navigation
Planet Prosperity	<ul style="list-style-type: none"> • Driving Port Efficiency • Clarifying Dredging/Sediment Management projects 		Operability - Berth
Prosperity	<ul style="list-style-type: none"> • Driving Port Efficiency 		Ensures Resilient & Adaptive Infrastructure
Prosperity Partnerships	<ul style="list-style-type: none"> • Ensuring Efficient and Protected Supply Chains and Corridors (Road, Rail & Sea) • Driving Port Efficiency 		Operability - Land - Materials Handling Corridors (Supply Chains etc)
Prosperity Partnerships	<ul style="list-style-type: none"> • Driving Port Efficiency 		Operability - Land - Road Interface
Prosperity	<ul style="list-style-type: none"> • Ensuring Business Flexibility, Resilience & Adaptation 		Scalability
Prosperity	<ul style="list-style-type: none"> • Investigating Local Supply Opportunities • Ensuring Business Flexibility, Resilience & Adaptation 		Construction Fronts / Schedule
Partnerships	<ul style="list-style-type: none"> • Ensuring safety & security of people at and around the port • Openness & Transparency with the Township • Investigating Local Supply Opportunities • Clarifying the 'Vision' for the Port of Bunbury • Managing potential Port Impacts (eg. Air, Noise, Stormwater) 		Social Impacts
Planet Partnerships	<ul style="list-style-type: none"> • Managing & Preserving Biodiversity around Port Precinct - in partnership with City of Bunbury • Management of Separation Distances (ie. Port Buffers) • Ensuring 'Sustainability' informs decision-making • Addressing Climate Change Resilience & Adaptation 		Impacts on the Environmental Aspects
Prosperity	<ul style="list-style-type: none"> • Providing Confidence for Investment within the region 		Financial Aspects

Table 1.2 Sustainability Alignment





Bunbury Port Layout and Security Zones

- Home
- Section 1
- Section 2
- Section 3
- Section 4

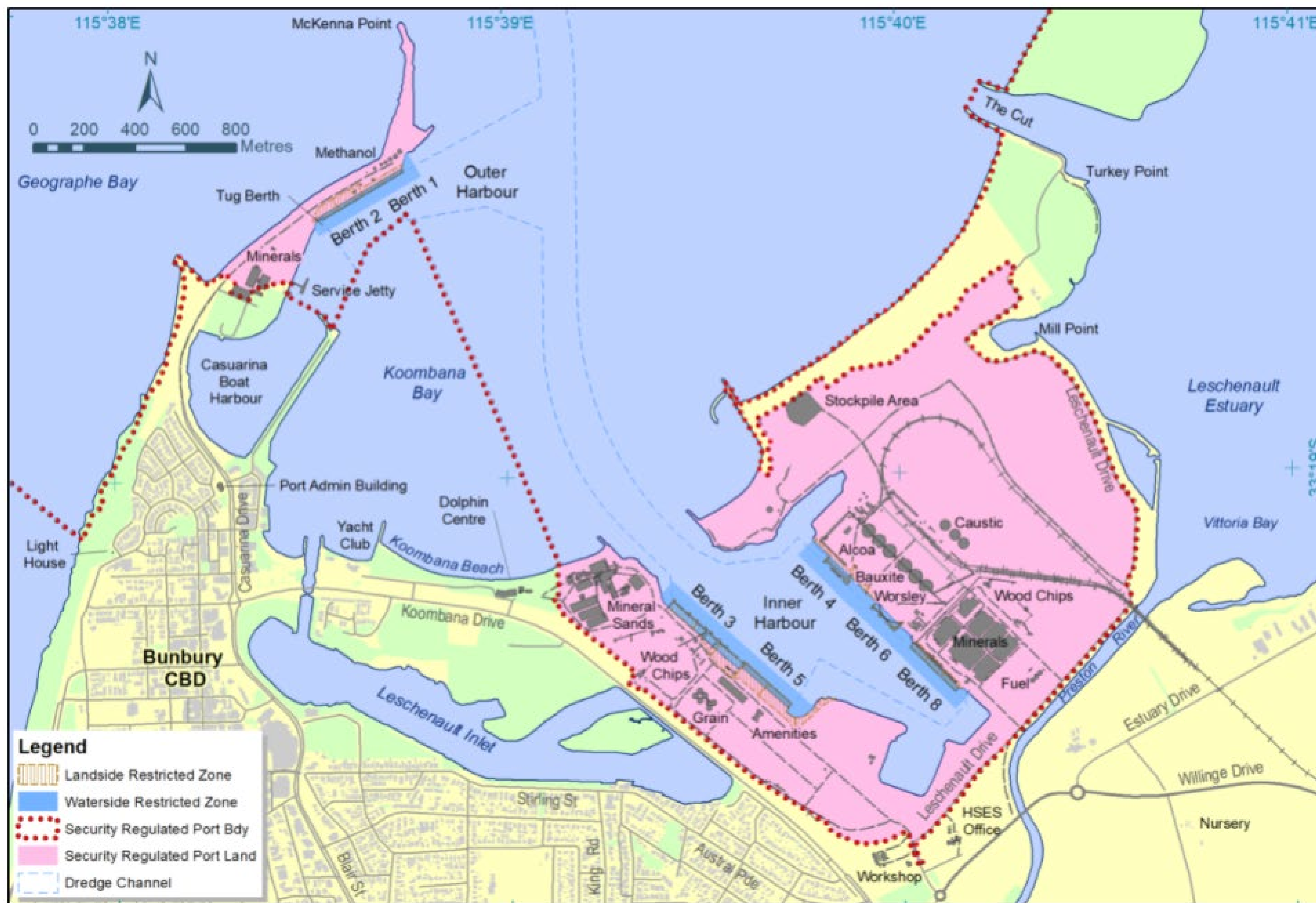


Figure 1.2
 Current Bunbury Port Layout and Security Zones
 Source: Southern Ports Authority



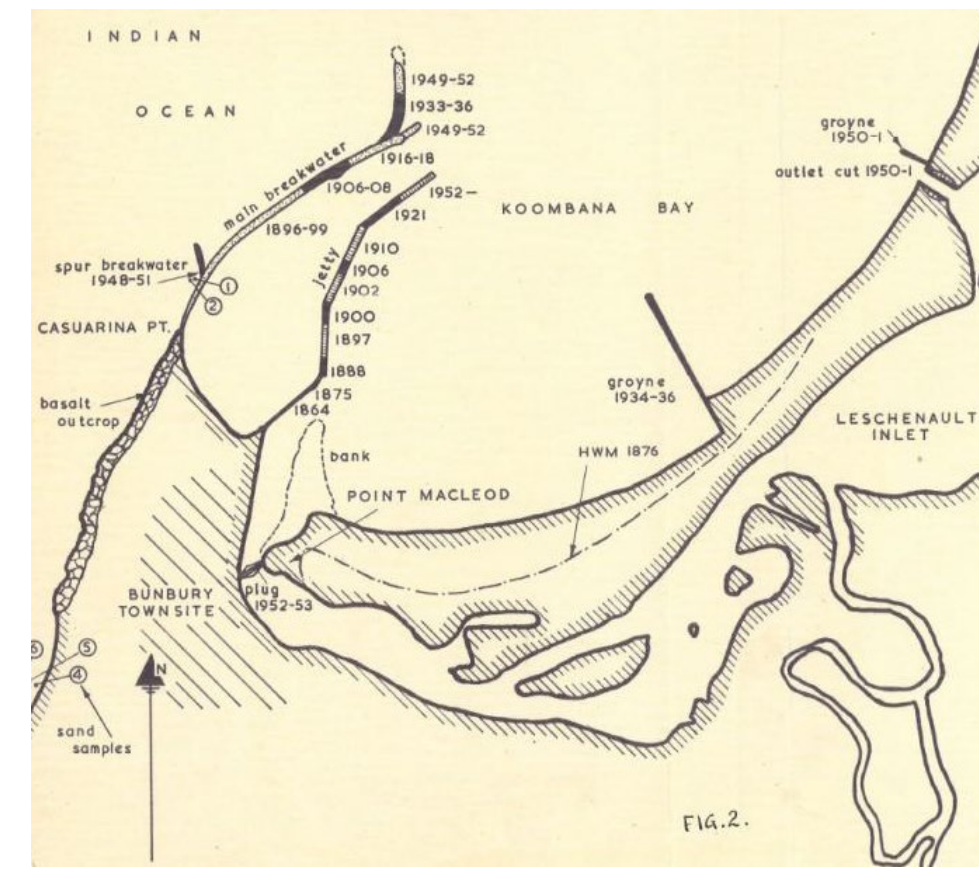


History

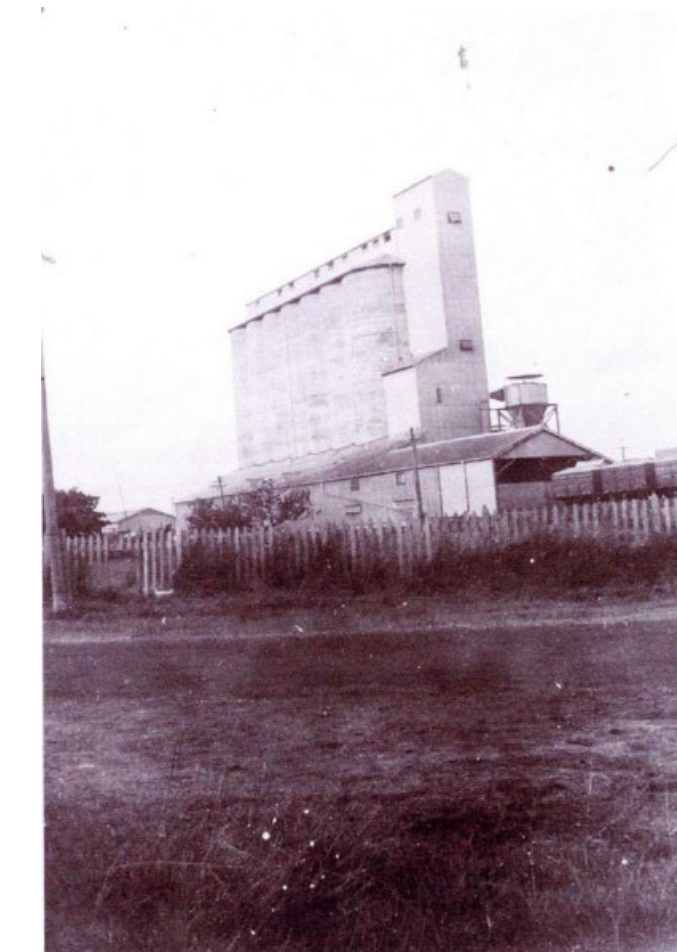
Bunbury township was established in 1836, with the port established shortly after to utilise the natural harbour. While known for exporting hard wood timbers in the later 1800s, the Port has undergone many changes since then to evolve to the current configuration as the gateway for trade. Southern Ports is currently responsible for managing the Port of Bunbury, and is governed under the Port Authorities Act 1999.

The Port's main trades are alumina, caustic soda, woodchips and mineral sands.

The Port of Bunbury has played a vital role in the development of Bunbury and the surrounding region. The Port has been expanding since the 1960s, following a development journey described in the adjacent timeline.



Picture 1: Breakwater Extension, 1908.



Picture 2: Wheat Silos, 1937.



Port of Bunbury

1864-97

The original timber jetty was constructed (426.7m)
The original square wooden light house was built
The main railway from Perth to Bunbury Town opened

1897

Construction started for the breakwater

1899

Breakwater construction completed (980m)
Jetty connected to the main railway line

1908-09

Breakwater extended to 1210m
Bunbury Harbour Board was formed

1914-18

First wheat Shipment
Breakwater extended to 1512m

1930-33

First shipments of Sulphur and Phosphate for the new works at Picton
Estuary bridge completed

1934-37

Groyne constructed
Breakwater extended to 1661m
The original grain silos were constructed





History continued

- Home
- Section 1
- Section 2
- Section 3
- Section 4



Picture 3: Berth 2 Opens, 1966.



Picture 4: Inner Harbour Dredging, 1970.



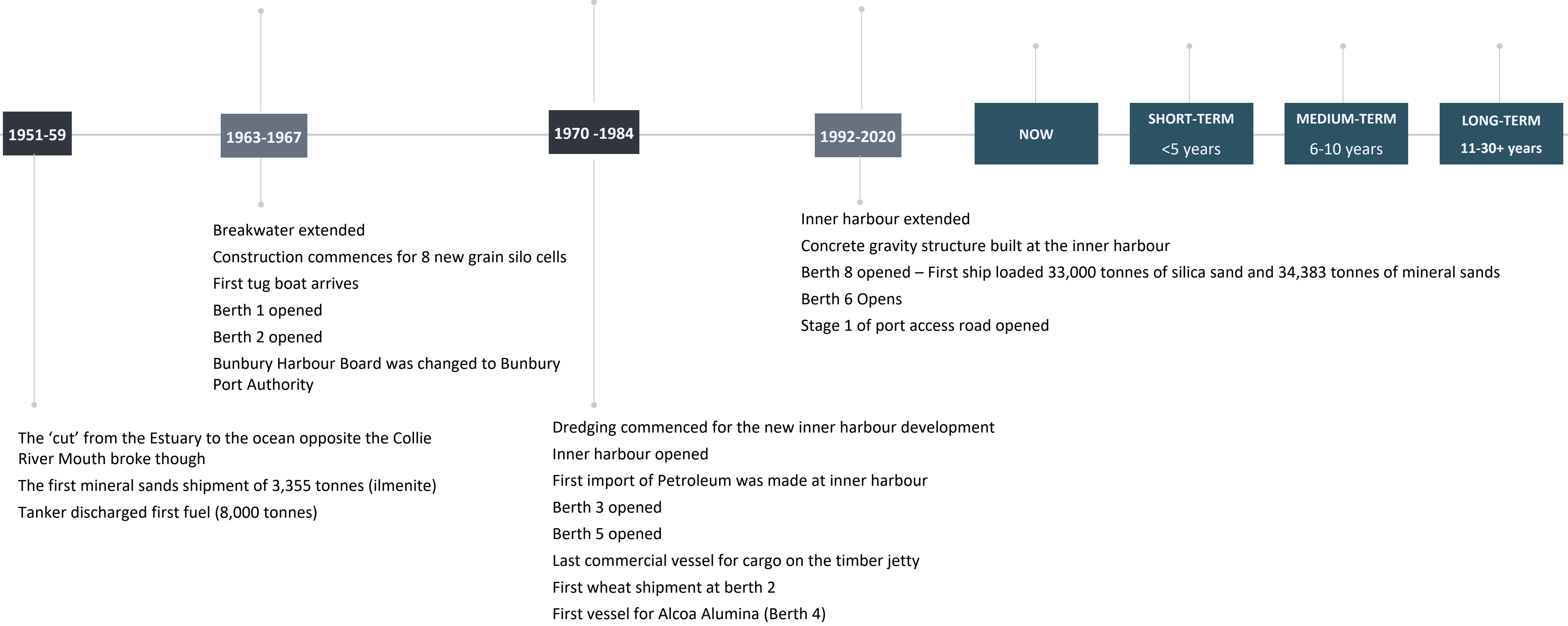
Picture 5: Berth 8, Opens 1996.

Port Master Plan Pathway

The Port has operated for a long time, experiencing many changes to evolve to the current configuration.

The Port supports, and is critical to, the Bunbury and South West region and the local Bunbury community.

Potential future growth in trade could exceed the existing basin capacity – requiring upgraded and new port infrastructure to accommodate the long term growth potential for the South West region.





Historical Port Throughput

Home

Section 1

Section 2

Section 3

Section 4

Historical Port throughput is dominated by alumina products. In the 2020/21 financial year, commodity throughput included:

Exports

Commodity	Throughput
Mineral Sands	1 mtpa^
Grain	0.6 mtpa
Alumina	11.4 mtpa
Other Mineral concentrates	0.9mtpa
Silica Sands	0.3 mtpa
Woodchips	1.1 mtpa

Imports

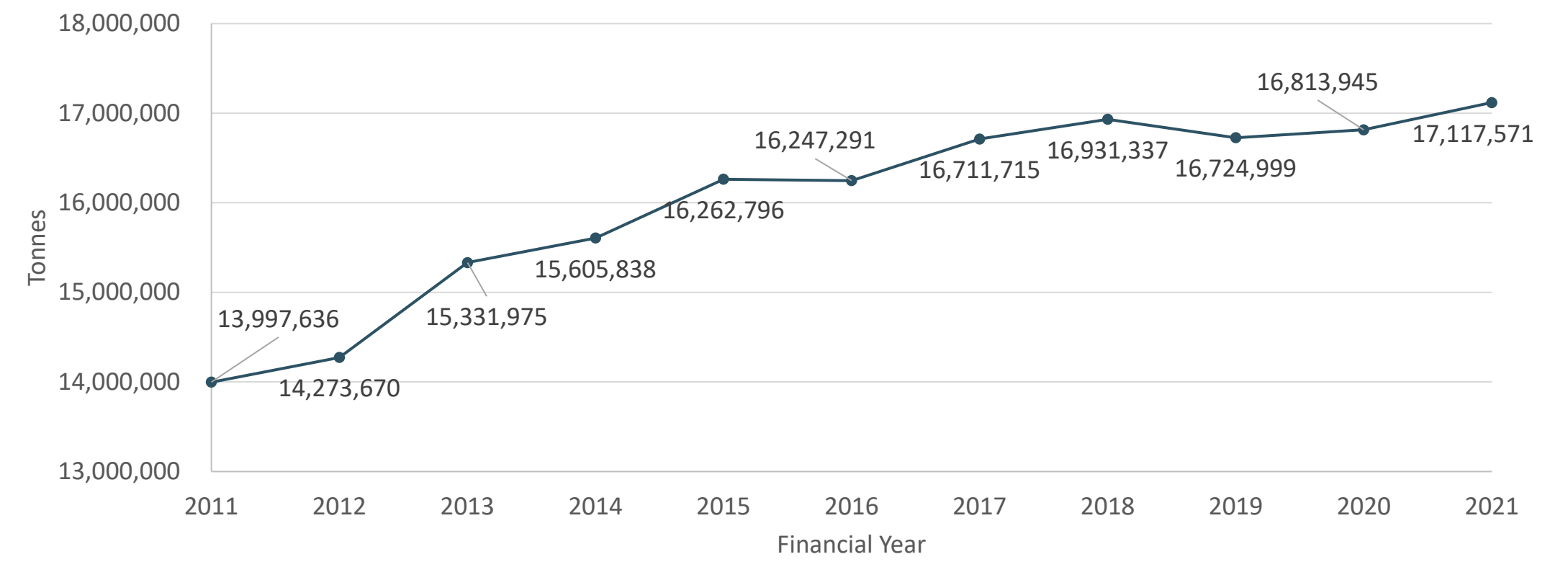
Commodity	Throughput
HMC & Ilmenite	0.3 mtpa
Coal / Petroleum coke	0.1 mtpa
Caustic Soda	1.5 mtpa

Over the last five years total cargo trade volumes have remained in the order of 16 to 17 mtpa, with exports accounting for the majority of this throughput. Imports have been limited to less than 2 mtpa.

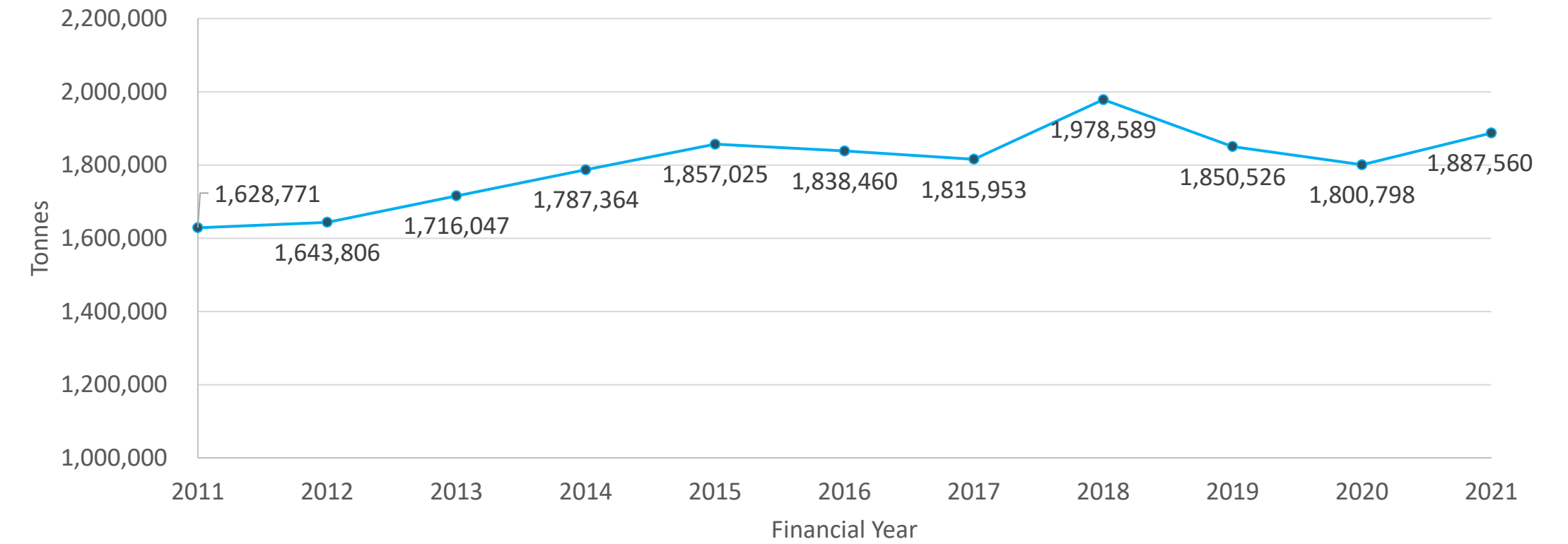
The adjacent figures provide an overview of the historical Port throughput for key commodities.

^ mtpa = Million Tonnes per Annum

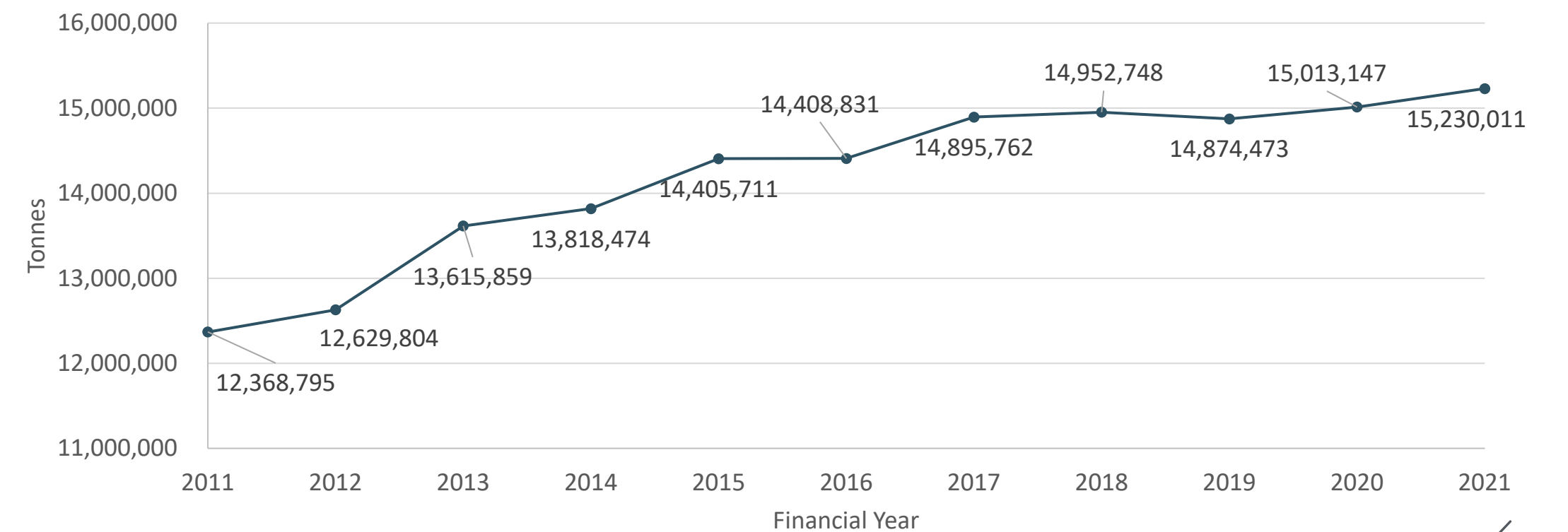
Historical Port throughput (FY11-21)



Historical Port Imports (FY11-20)



Historical Port Exports (FY11-20)





Transport Connectivity

Port throughput is limited to the efficiency of the South West regional transport corridors that support the transfer of goods between the port and this hinterland.

The PMP seeks to provide a forward development path that can be integrated within the greater regional transport network planning.

The primary transport corridors that support the Port of Bunbury are the Bunbury South West Rail system and the local and regional road network made up predominantly of Leschenault, Estuary, Willinge and Robertson Drives, completed sections of the Bunbury Outer Ring Road (BORR) and the Forrest, Coalfields and South Western Highways.

The Port has good transport connections, with access to the freight rail line and a new port access road, Willinge Drive, completed in 2013. The completion of the northern and southern sections of the BORR, future grade separation of Willinge Drive over the South Western Highway and South West Main Rail Line and the future upgrade of Bussell Highway to a dual carriageway between Bunbury and Busselton will further improve freight access into the Port.

A section of Estuary Drive between Willinge Drive and the port entrance has a high level of freight and public vehicle interaction and is currently operating at over capacity.

Previous transport studies have identified that the rail line between Brunswick Junction and Bunbury Port is operating close to capacity. There are currently 40 train paths per day on this section. If rail volumes grow in the future, this bottleneck in the rail freight network will require duplication to meet the growing demand for bulk and other freight movements to and from the Port. This upgrade will need to be accompanied by upgrading of rail access (a multi-user dump location) to the berths within the Port. In the medium to longer term other freight rail upgrades will need to be considered, including;

- A spur line into the Kemerton Industrial Park from the Bunbury to Perth line;
- The Bunbury to Perth line north of Brunswick Junction; and
- The Brunswick Junction to Collie line.

Future planning, funding and capacity increases within the road and rail networks will be required to match growth in hinterland commodity growth.

Currently the alignment of the proposed Perth to Bunbury Faster Rail project does not intersect with Port of Bunbury land holdings.

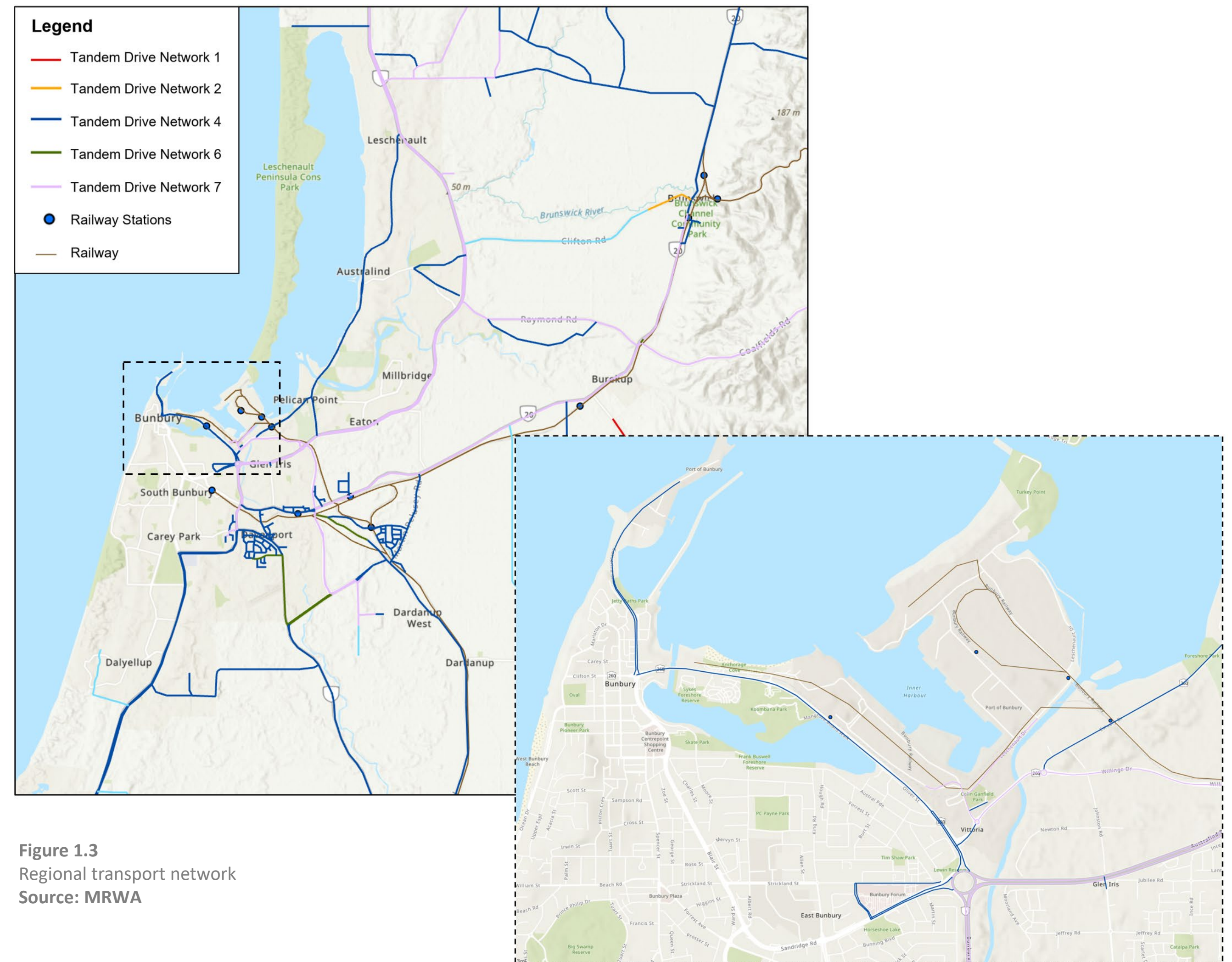


Figure 1.3
Regional transport network
Source: MRWA





02.

Port Master Planning Process

The process undertaken to produce the Port Master Plan is outlined in this section, providing an overview of the stages and methodology.





Process and Methodology

The process adopted for Bunbury Master Plan closely aligns with International Port Planning and Ports Australia Guidelines for port development and has followed a series of stages tailored to suit the unique requirements of the Port of Bunbury.

The process comprises 3 key steps:

- Baseline Establishment;
- Option Development; and
- Preferred Plan Development.

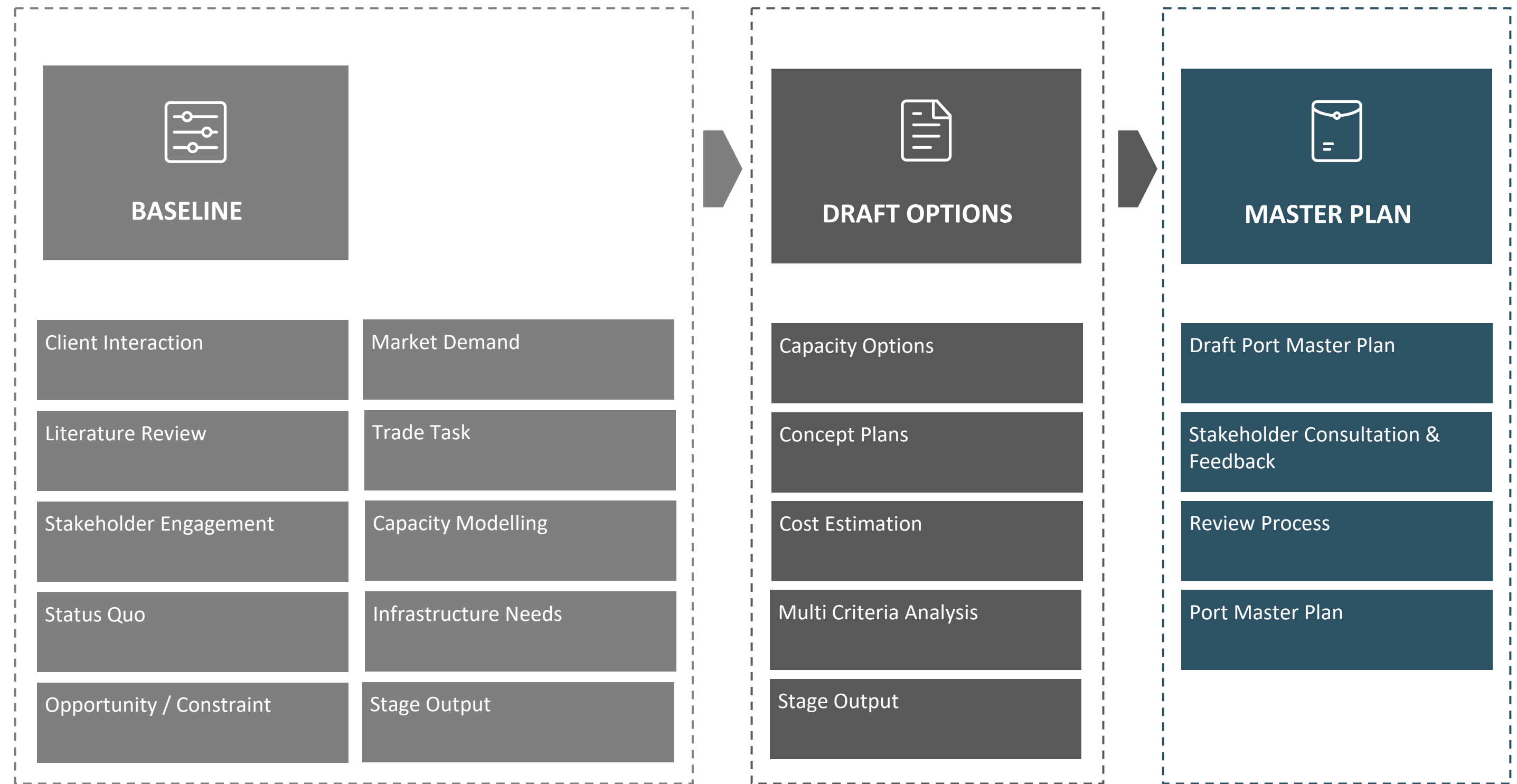


Figure 2.1
PMP study process



Engagement Process and Outcomes

Efficient communication, consultation and engagement of stakeholders and potential proponents are critical steps toward achieving a comprehensive PMP. This creates an effective balance between the various and sometimes conflicting interests, concerns and considerations of key stakeholders. Stakeholder consultation was aimed primarily to achieve the following goals:

- To identify and classify external stakeholders based on their interests, involvement and concerns in the future development of the port;
- To obtain vital input from stakeholders, where applicable, about their future trade, operational procedure, vessel sizes, project timing and other critical data which may dictate modification to the default master planning assumptions; and
- To obtain stakeholder views including governmental and community-based groups on how the port development is to be planned, funded and managed into the future.

An overview of the overall stakeholder consultation process is provided below.

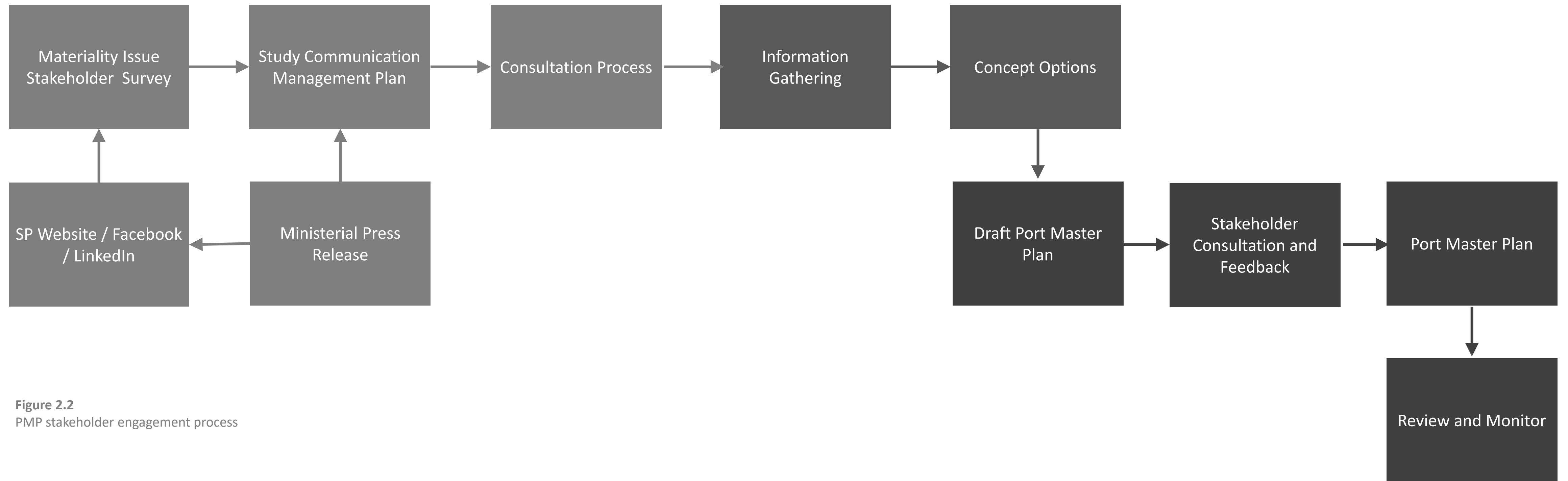


Figure 2.2
PMP stakeholder engagement process



Public Pre-Planning Survey

Home

Section 1

Section 2

Section 3

Section 4

A public pre-planning survey was undertaken, intended to provide Port stakeholders, staff, and the wider community the opportunity to give their view on issues they thought important for the master planning process.

Survey requested ranking of important issues within three key themes, namely: People & Partnerships, Environment and Prosperity.

Respondents were asked to rate material issues in terms of importance, with the results summarised in Table 2.1 and Figure 2.3.

Item	Theme	Important Issues
1	People & Partnerships	Ensuring safety & security of people at and around the port
2	People & Partnerships	Clarifying the 'Vision' for the Port of Bunbury
3	People & Partnerships	Management of Separation Distances (ie. Port Buffers)
4	People & Partnerships	Ensuring strong engagement with all stakeholders during the Master Planning process
5	People & Partnerships	Investigating Local Supply Opportunities
6	People & Partnerships	Increasing public education and awareness of port activities
7	Environment	Managing potential Port Impacts (e.g. Air, Noise, Stormwater)
8	Environment	Ensuring 'Sustainability' informs decision-making
9	Environment	Focussing on Safe and Clean Shipping
10	Environment	Addressing Climate Change Resilience & Adaptation
11	Environment	Managing & Preserving Biodiversity around Port Precinct - in partnership with the City of Bunbury
12	Prosperity	Protect and Optimise Strategic Port Lands
13	Prosperity	Supporting South West Regional growth and confidence
14	Prosperity	Facilitating/Supporting Trade Growth & Diversity
15	Prosperity	Asset / Infrastructure Management
16	Prosperity	Ensuring Business Flexibility, Resilience & Adaptation
17	Prosperity	Ensuring Efficient and Protected Supply Chains and Corridors (Road, Rail & Sea)
18	Prosperity	Exploring New Technologies/Digitalisation in Operations
19	Prosperity	Exploring joint venture partnerships / industry opportunities for future development

Table 2.1
Pre-Planning Survey Result





Community Feedback

Home

Section 1

Section 2

Section 3

Section 4

The survey received 204 responses over the time period, with the respondents representing a wide range of stakeholders.

All the materiality issues are considered to be of key importance (rank above 7) with the top three highest ranking issues being:

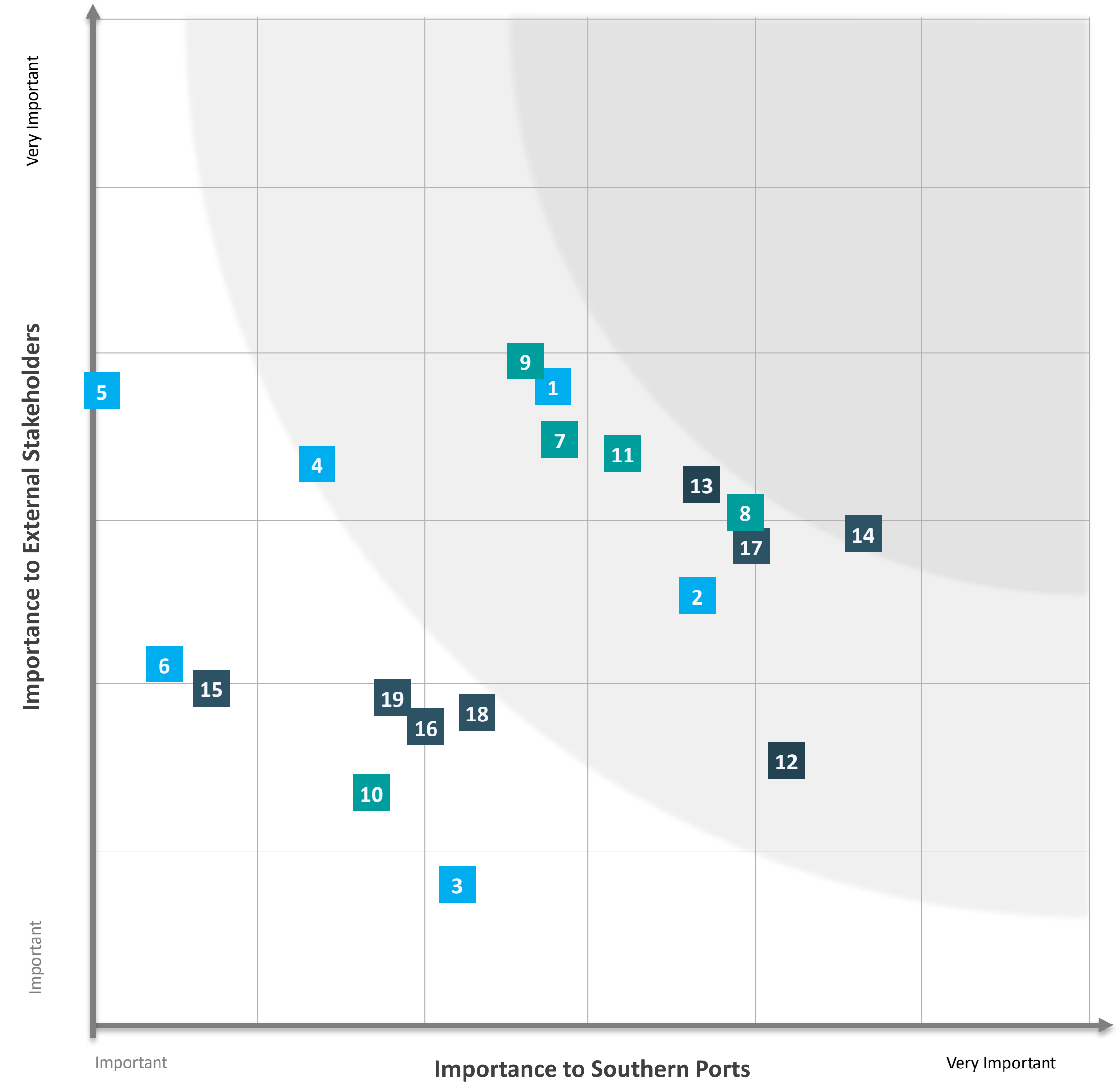
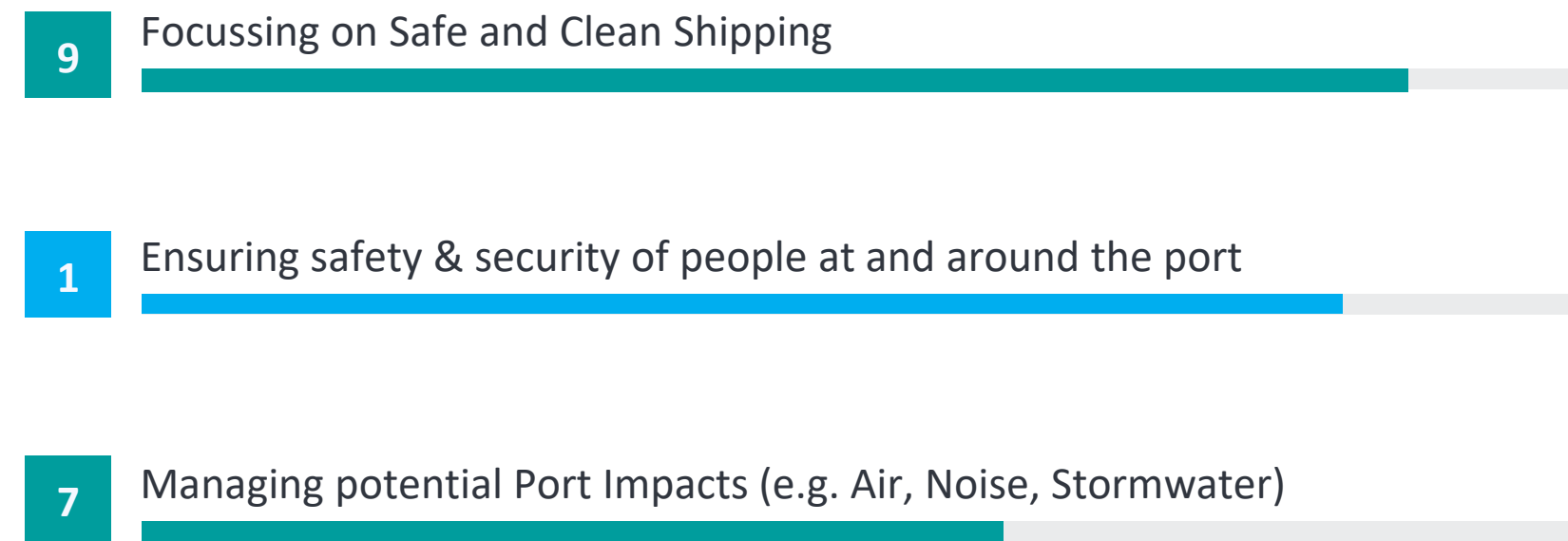


Figure 2.3
Pre-Planning Survey Result



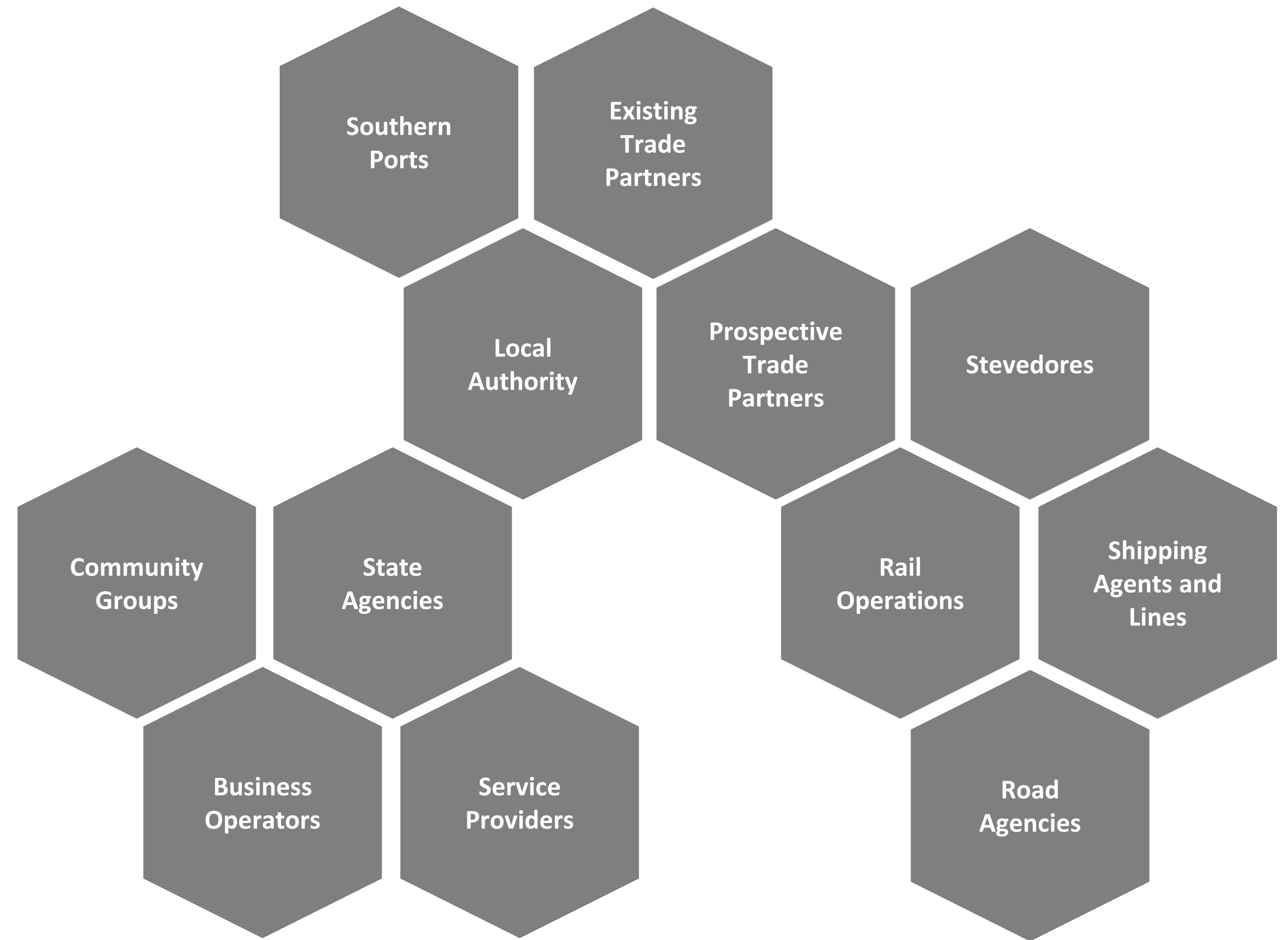


Industry Consultation

Twenty four stakeholder groups of varying backgrounds and operations were consulted, seeking their input to the Port Master Plan process. A summary of some of the stakeholder groups engaged is provided in the adjacent figure.

The meeting and interview discussions were often broad in nature covering current and future operations.

The key themes were extracted and informed the identification of opportunities and potential constraints for the Port to consider in the master planning process.



24
stakeholder groups

Figure 2.4
Industry Consultation Groups



Opportunities and Constraints

- Home
- Section 1
- Section 2
- Section 3
- Section 4

The following items represent the key opportunities and potential constraint themes identified in the baseline phase of the port master planning process. The opportunities and constraints are factored into the development of the Port Master Plan options.





03.

Trade Forecast Scenarios and Infrastructure Needs

Trade is one of the core influences behind the Port Master Plan. This section outlines how differing trade scenarios were developed and how these influence infrastructure and land requirements within the Port.





Trade Forecast Scenarios

The general approach used for development of the trade forecast scenarios comprised:

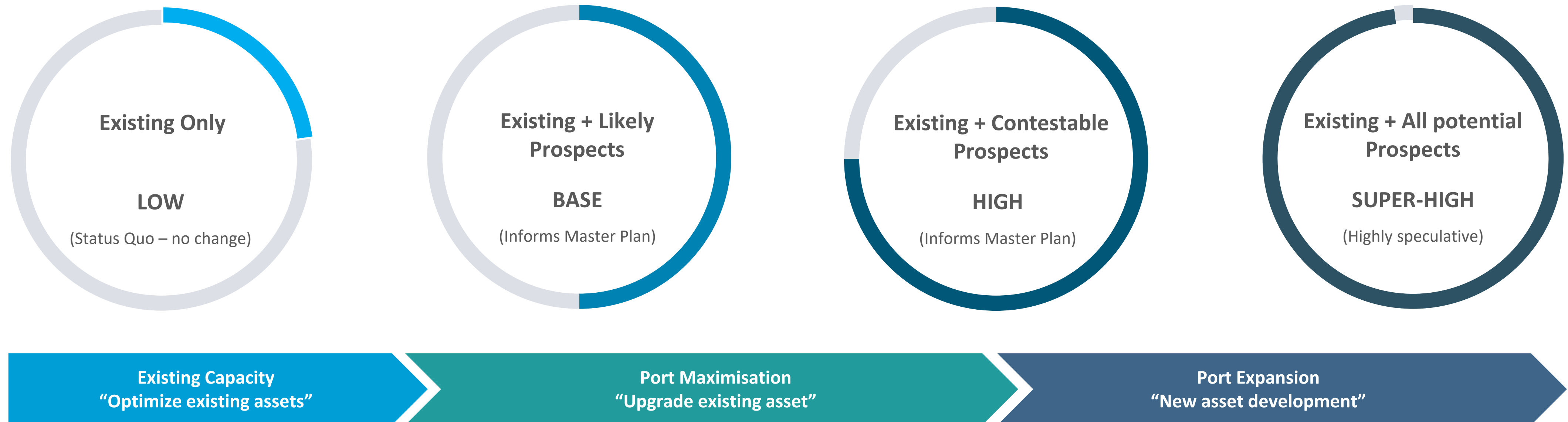
- Feedback from stakeholder consultation;
- Incorporation of the recent business opportunity review work by Southern Ports;
- Granular, bottom-up analysis using actual cargo throughputs and a list of prospects at a project level with defined assumptions; and
- Latest thinking, research and study outcomes of government agencies (WA and federal) on the possible future development of cities, populations, trade sectors and relevant innovations within the Port of Bunbury catchment area.

The trade forecasting time-frame reflects the Port Master Planning of up to 30+ years.

Range of Scenarios

For each market sector, a range of four trade volume scenarios (Low / Base / High / Super-High) have been considered to test the scale of possible future infrastructure needs.

The Base and High Scenarios are considered most important and relevant for the purposes of master planning work as Super-High is mainly speculative, and Low (with no new business) is not considered an issue for existing infrastructure capability. The High scenario is utilised to inform the potential infrastructure requirements within the development of the port master plan options.





Commodity Forecast Scenarios

The trade forecast for each of the Low, Base, High and Super-High scenarios has been provided in the adjacent table for key commodities.

The High forecast scenario is used for the basis of future planning within the Port Master Plan.

As outlined in the table, bulk trades in the Port of Bunbury will continue to be driven by alumina, with strong growth prospects in mineral concentrates, dry bulk and liquid bulk categories.

In the medium term, there is potential for Bunbury to become a more significant gateway for non-bulk trades including vehicles and other break-bulk trades. This would come as a result of moves to change the trade mix at the Port of Fremantle under the Westport project and the work of the Future of Fremantle Planning Committee.

Commodity	2020/21 Throughput	Low Forecast	Base Forecast	High Forecast	Super-High Forecast
Mineral sands	1.3 Mtpa	0.5-1.3 Mtpa	0.5-1.6 Mtpa	0.5-1.6 Mtpa	0.5-1.6 Mtpa
Grains	0.4 Mtpa	0.4 Mtpa	0.4 Mtpa	0.4-0.6 Mtpa	0.6-0.8 Mtpa
Alumina and bauxite	11.2Mtpa	11.2 Mtpa	11.2 Mtpa	11.2 Mtpa	11.2-20.3 Mtpa
Minerals Concentrates	0.8 Mtpa	0.6-0.8 Mtpa	0.6-0.8 Mtpa	0.8-3.8 Mtpa	0.8-4.6 Mtpa
Dry Bulk – Other	1.7 Mtpa	1-1.7 Mtpa	1.1-1.8 Mtpa	1.7-2.5 Mtpa	1.7-3 Mtpa
Liquid Bulk	1.3 Mtpa	1.3 Mtpa	1.4 Mtpa	1.3-2.1 Mtpa	1.3-2.3 Mtpa
Break Bulk¹	0.1 Mtpa	0.1 Mtpa	0.1 Mtpa	0.1 – 0.5 Mtpa	0.1-0.5 Mtpa
Containers	0 TEU	0 TEU	24,200 TEU	27,200 TEU	36,200 TEU
Summary	16.8 Mtpa	14.5-16.8 Mtpa	15.5-17.6 Mtpa	16.8-22.0 Mtpa	16.8-32.1 Mtpa

Table 3.1 Trade forecast scenario summary





Emerging Markets

Home

Section 1

Section 2

Section 3

Section 4

Globally, reduction in fossil fuel use and developing sustainable energy security through the emergence of renewable based energy sources with a focus to achieve high density and zero emissions fuel is a priority.

Australia has excellent natural resources to develop economically viable hydrogen and has developed a national Hydrogen Strategy to set a vision for the near and longer term development of a clean, innovative, safe and competitive hydrogen industry.

Western Australia has developed a Renewable Hydrogen Strategy that clearly sets out a vision of “WA will be a significant producer, exporter and user of renewable hydrogen”. The strategy sets out four key strategic focus areas, namely:

- Export – securing global market share and exporting renewable hydrogen products.
- Remote applications – reducing reliance on diesel in remotely located industries and communities.
- Hydrogen blending in natural gas networks – blending hydrogen into natural gas networks.
- Transport – hydrogen utilisation for mobility and freight transport opportunities.

The strategy sets out goals to achieve in the short (by 2022) and medium (by 2030) term timeframes. Notably, sustainable and economically viable renewable hydrogen production is dependent on large scale development of wind turbine and solar photo voltaic energy infrastructure components.

Ports are critical nodes in the supply chain that support the emerging renewable energy market. Initially, ports provide points of intermodal interface that allow the handling of project cargo (e.g. wind turbine structures, electrolyser components) to construct and maintain the renewable hydrogen production facilities. Once renewable hydrogen production is online the export of hydrogen based products will require port facilities to safely facilitate product transport, storage, loading and wharf operations. The production of hydrogen using renewable energy sources, especially at large scale, is not a mature technology and still subject to extensive research and testing. Currently there are several industry initiatives that are focussing on the development of initial small scale developments with a view to grow into longer term export scale production. It is recognised that ports will support the development of the renewable hydrogen industry however the quantification of land and berth requirements within the port systems cannot accurately be assessed at this early stage.

The Port of Bunbury can support the initial project development phase that incorporates the import of modular project and containerised cargo while the longer term requirement for bulk hydrogen export potential will be quantified and accommodated in future iterations of the port master plan.

The Port of Bunbury is working in conjunction with State government and other agencies to assist in the development of initiatives such as the Advanced Manufacturing Hub including an increased focus on renewable energy production.



Ports are critical enablers to develop and maintain the future production and export of renewable energy resources.





Infrastructure Requirements

- Home
- Section 1
- Section 2
- Section 3
- Section 4

The assessment of port infrastructure capacity is a complex task due to the large number of variables and influencing factors.

To understand the existing capacity, and therefore the need for increased capacity to meet future demand, aspects such as historical trade, the vessel fleet, commodity parcel sizes, maximum operational rates and effective berth capacity were considered.

The assessment was separated into three components, being water-side (marine) infrastructure, land infrastructure and land area. Each was assessed to determine the additional requirements needed to meet the forecast trade through the Port of Bunbury, noting the determined requirements were based on current Port operations and throughput methodology.

Waterside Infrastructure Needs

A capacity model was used to develop the water-side infrastructure needs, where vessel berth occupancy and load rates at the wharf were compared to forecast demand, allowing shortfall to be identified. The model also supported testing of various factors linked to latent capacity (e.g. change in wharf length, cargo load rates, and service hours, etc.).

Assumptions such as commodity allocation, berth outages, diverse commodity parcels and load rates were considered, with Base, High and Super-High scenario outcomes produced.

Based on current commodity throughput achievable per berth (utilising existing materials handling infrastructure and rates), the quantum of berth infrastructure required to meet forecast scenarios was estimated as summarised in the Berth Requirements table provided.

Waterside infrastructure capacity modelling considered various factors including berth occupancy of vessels, commodity load rates, and how commodities are currently distributed throughout the Port.

Land Infrastructure Needs

To determine how much land needs to be earmarked to support various types of trade and the associated throughputs, existing land availability was compared to the forecast land requirements in line with the Base, High and Super-High trade scenarios. The outcomes of the assessment were used to develop a Port landside concept sufficient to meet forecast demand.

The key in determining land requirements is maintaining maximum infrastructure flexibility so that the Port Master Plan will meet future demand even if things change over time.

Road and Rail Infrastructure

Similar to the berth capacity modelling, a truck generation model was developed. The model assessed inward and outward cargo movement via road, considering payload size, traffic count data at local intersections and trade forecast data to calculate truck volumes. The truck traffic forecast was then added to intersection road models to establish the impact on the Level of Service as defined by Main Roads WA.

The assessment indicated that all roads remained within the acceptable Level of Service, with only internal port road upgrades to be considered further.

Rail capacity and demand was also assessed, where it was identified that similarly to roads, the rail is currently within acceptable levels of service for existing commodity throughput. The benefit for rail upgrades to support new commodities was considered further in the master plan, particularly where rail infrastructure can reduce the demand on road networks.





Infrastructure Requirements

Home

Section 1

Section 2

Section 3

Section 4

Land Area Requirements

As for water-side and land infrastructure, land area requirements were assessed, comparing the existing land capacity of the Port to forecast trade requirements.

As part of the assessment, efficiencies within the Port were determined such as grouping major and 'like' trade commodities, maintaining proximity to the appropriate berth, minimising changes to existing lease areas and minimising wholesale changes to land use.

While the Port has sufficient land for current operations and commodities, new commodities were identified under the High and Super-High Scenario trade forecasts. The land areas for these operations are provided in the Land Area Requirements table. Due to the similarity of the current throughput to the Low and Base trade scenarios the land area requirement for these scenarios has not been considered.

Land for container operations can be particularly important in Ports, as area can be needed for import, export or even refrigerated containers. Proximity to the berth is also a key factor, as heavy machinery is required for container transport.



Infrastructure Requirements

Berth and land area requirements are summarised in tables below. Due to the existing throughput and Low trade forecast scenario being similar in tonnage and profile the infrastructure requirements for this scenario is not listed.

Berth Requirements

Berth	Product	Existing Trade (2021)	Existing Capacity ¹	New Berth Requirements		
				Base Forecast	High Forecast	Super-High Forecast
Berth 1 ³	General purpose, cruise	11.5 ktpa		-	-	-
Berth 2 ³	Tugboats, methanol	11 ktpa		-	-	-
Berth 3	Woodchips, grain	1.3 mtpa	3.1 to 3.5 mtpa	0	0	0
Berth 4	Alumina, caustic soda	7 mtpa	8.5 to 9.6 mtpa	0	0	1
Berth 5	General purpose + future containers, vehicles	1 mtpa	0.9 to 1 mtpa plus, 10.7k to 12.2k TEU/annum	0	1 ²	2
Berth 6	Alumina, caustic soda	5.5 mtpa	6.2 to 7 mtpa	0	0	0
Berth 8	Bulk materials	2 mtpa	2.4 to 2.8 mtpa	0	1 ²	1

Table 3.2
Berth infrastructure requirements

1. Capacity based on current and predicted commodity profile and current operational load rates with average tonnage range related to Berth Commitment thresholds at 75% and 85%.
2. Berth capacity improvement required in 5-10 year timeframe.
3. Berth 1 and Berth 2 isolated by the Transforming Bunbury Waterfront Project within short term. Outer Harbour trade will cease by 30 June 2024 and be incorporated at Inner Harbour berths.

Rail Requirements

Currently the port has adequate privately owned rail infrastructure to support the alumina and caustic soda product throughput. The potential increase in higher volume dry bulk products indicate that additional rail infrastructure within the port could be considered. Additional rail infrastructure with the ability to facilitate multi user / product operations would support the transfer of product from road based delivery onto the rail freight network. Consideration of additional rail infrastructure capacity beyond the port gate, specifically between the Port, Picton and Brunswick Junction is required to maximise this potential.



Infrastructure Requirements

Home

Section 1

Section 2

Section 3

Section 4

Total Area Requirement Next 30 Years (m²)

Table 3.3
Land area requirements

Product	Total Area Requirements (m ²)		
	Current	High Forecast	Super-High Forecast
Alumina (excluding Caustic Soda)	205,000	205,000	371,000 ¹
Agriculture products	16,000	16,000	16,000
Dry bulk other including minerals sands and concentrates	157,000	380,000	625,000
Chemical liquid bulk (including Caustic Soda)	76,000	120,000	131,000
Lumber products	174,000	215,000	215,000
Containers	-	30,000	40,000
RO-RO vehicles	-	48,000	48,000
Total	628,000	1,014,000	1,446,000
Additional Storage Area Required	0	386,000 ²	818,000

1. Includes potential future bauxite export product
2. Approximate current non-developed land within the Inner Harbour boundary is in excess of 800,000m². This excludes port land holdings east of the Preston River and land protruding within the Inner Harbour Basin that will be removed when berth 7 is developed.

Port infrastructure redundancy offering

Port of Bunbury is the southernmost port in the South West Australian region. Port of Bunbury supports the Westport and West Trade Coast initiatives by offering short to long term redundancy in the South West port systems to provide additional capacity for trade movement in Western Australia.





04.

Bunbury Port Master Plan

This section defines the Port Master Plan development items, outlining how the Port could look in the future considering short-, medium-, and long-term infrastructure and development solutions.





Port Master Plan Overview

Home

Section 1

Section 2

Section 3

Section 4

The Port Master Plan at the highest level has two principle focus areas, namely:

Maximisation

Seeks to maximise the efficiency and development opportunity that exists within the existing port inner harbour area (limited changes to the surrounding port environment) including for new berth development. Maximisation includes for the optimisation of existing infrastructure and the continued life cycle upgrade investment in the economically critical port asset base.

Expansion

Focuses on identification, planning alignment and development of undeveloped or surrounding port area adjacent to the port boundary (reserve or protect land area critical to sustainable port operations and continued economic benefit to the region). Also includes the planning and development of future port infrastructure in the form of new land, basin and wharves (as required) to support long term growth forecasts.

The Maximisation and Expansion principles each lend themselves to a natural development horizon. Initially, within the short to medium term (0 -10 year timeframe) the focus is on the Maximisation opportunities. The development opportunities contained within the Expansion phase are linked to longer term development horizons (e.g. 10-30+ year period and beyond). The Maximisation and Expansion planning principles culminate in an overarching preferred Port development option, as outlined in the following sections.

It should also be noted that the development of the Port Master Plan seeks to align at all times with Southern Ports principles such as sustainability, safety, and economic opportunity. The Port Master Plan (PMP 2022) is based on the structural layouts considered in the Southern Ports Inner Harbour Structure Plan (IHSP 2009) and a further draft version of this plan called the Revised Inner Harbour Structure Plan (RIHSP 2019) which was put on hold whilst PMP 2022 was developed. The master planning looks at a set of strategic trade scenarios which determines the infrastructure requirements and notes the outcome of the Westport facility which is to be located in Kwinana. The inner harbour structure plans on the other hand, consider the ultimate port development layouts noting the long term strategic importance of Bunbury port in the states second most populous city. The PMP 2022 presents infrastructure requirements based on a high trade scenario across a 30 year horizon and notes potential future development which sit outside this horizon but require the long term protection of these lands from urban encroachment for future port use. The IHSP/ draft RIHSP will be revised and updated in the future after master planning is completed.

Ports, due to their function as nexus for trade and intermodal logistics are extremely dynamic environments. This version of the Port Master Plan with its specific opportunities and constraints represents the preferred port development option presently. However, as time progresses and new market dynamics come to play this could very well change.

This is especially relevant to the longer term opportunities forming part of the Expansion phase. It is good to consider short term opportunities as having a higher probability of occurring than the longer term options, which have some inherent flexibility due to the time scale of the forecasts driving demand for this infrastructure. Ongoing review of economic factors and comparison of the actual port trade throughput compared to forecast will allow Southern Ports to monitor and assess the requirement for and schedule capacity driven port development.

The schedule for port development projects, when linked to capacity requirement, is presently based on the High case trade forecast scenario. Development schedules linked to safety, efficiency and opportunity are driven by Southern Ports', and the business sector's, appetite for investment. Several of the projects have secured funding and are in development.

Port Development Projects for Key Commodities

Some specific overarching development strategies for key Port commodities are summarised as follows, outlining how the Port Master Plan seeks to secure these trades now and into the future, and to facilitate growth.

Bulk Materials

Berth 14 development for bulk materials throughput to support Berth 8 operations.

Complementary medium to long term development of the northern rail line provides alternative transport methods and improved efficiency of access to the Port.

Agribulk & Lumber Products

Berth 3 upgrade, comprising back fill and upgrade of the wharf apron to allow multi user access. Longer term project to increase berth utilisation.

Supported by co-location of existing agribulk stockpiles.

Multi-User (including Containers)

Berth 7 development to support multi-user operations including containers and Ro-Ro (vehicle import) operations. Widening and deepening of the approach channel and inner harbour may be required to facilitate unconstrained trade at the Berth 7 development based on the dimensions of the future vessels considered within the PMP (subject to future design stage). Complementary extension of Berth 5 to support longer vessels and improve flexibility by providing a continuous quayline.





Port Master Plan Development Items

The Port Master Plan development items in the short, medium and long term (up to 30 years) are summarised in the adjacent figure and the tables provided on the following pages. The tables provide additional details regarding the individual items, nominated timeframes and how the items align with themes considered during the stakeholder engagement phase.

Longer term (30 years plus) items are more flexible in terms of implementation timing and are dealt with in the Future Port Expansion Potential section.

The timing of the port development items becomes less certain into the longer term and ultimately all items are linked to trade triggers rather than defined short, medium and long term time periods. Should new or additional trade drivers manifest in the shorter term then current long term items could be developed in short term time frames.

Additional to the identified Port Development Projects, Southern Ports is in process of implementing a sophisticated asset management system to gain better understanding of the required renewals, maintenance and life cycle gaps to substantiate future work requirements on the existing asset base.

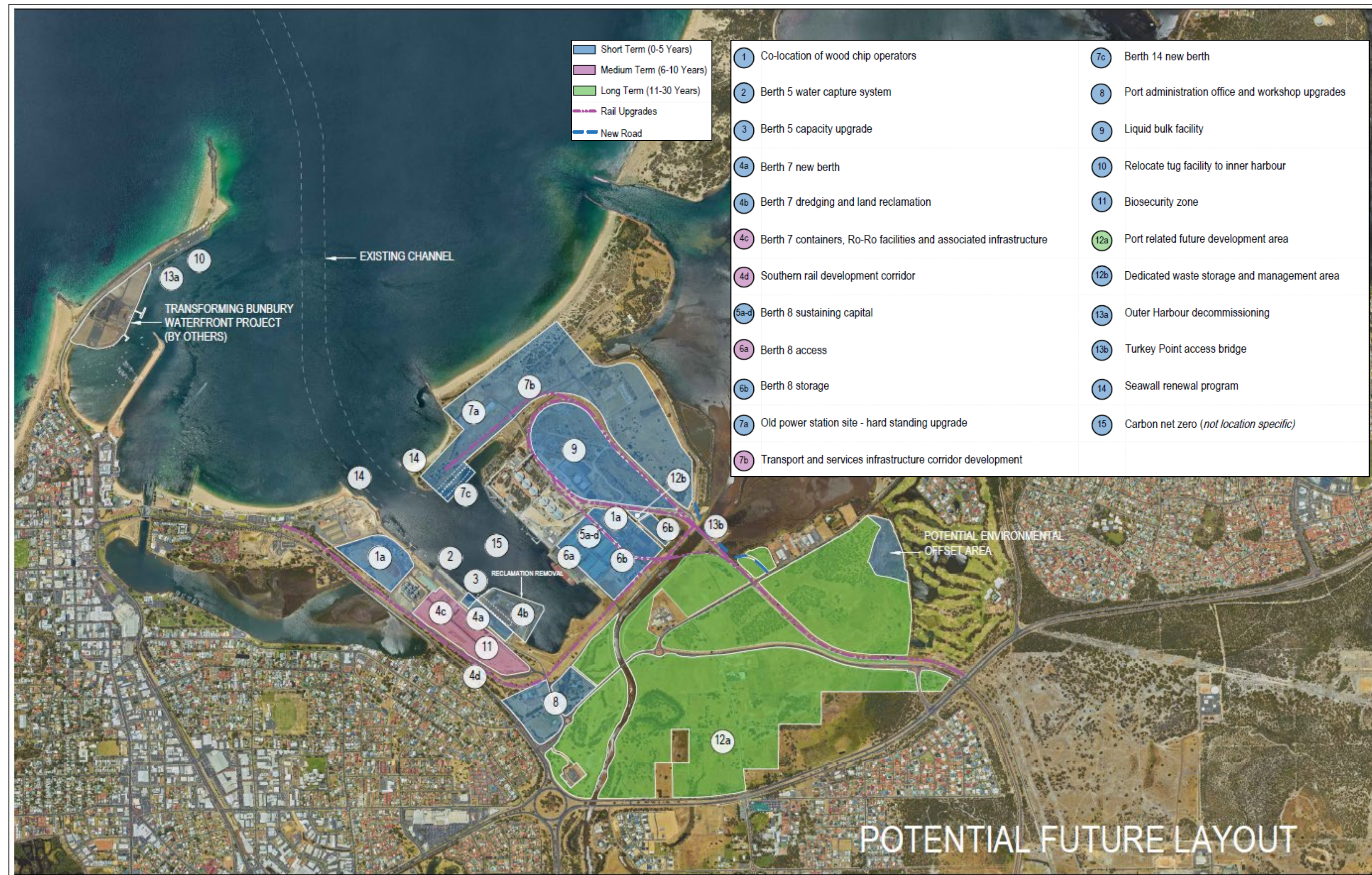


Figure 4.2
Short, medium and long term port development items





Port Master Plan Development Items

Home

Section 1

Section 2

Section 3

Section 4

Item		Scope / Additional information	Trade / Sector	Timeframe	Materiality Survey Theme
1) Berth 3 Capacity Development		Co-location of woodchip operations at Berth 3 subject to agreement from both parties.	Agribulk	Short term	Prosperity
2) Berth 5 water capture system		Implement water capture system for Berth 5, improving the Port bio-security zone and assisting in supporting new trade.	General Cargo + Containers	Short term	Environment
3) Berth 5 Capacity Development		Berth 5 upgrades including provision of Ro-Ro ramp. Interim solution before Berth 7.			Prosperity
4) Berth 7 development	4a) Berth 7 development	Development of new Berth 7 adjacent existing Berth 5. Improved access to Berth 5 and 7 developments and improved safety aspects.			Prosperity
	4b) Dredging	Dredging (channel and basin) and land reclamation works associated with Berth 7 development that includes consideration to maintain integrity of the Yarragadee aquifer.			Prosperity
	4c) Container, Ro Ro facilities	Construction of container infrastructure, Ro-Ro facilities, and other associated infrastructure.	Medium term		
4d) South rail		Southern rail line upgrade.			
5) Berth 8 Sustaining Capital	5a) Business as usual sustaining capital works	Assorted capital works	Bulk Materials	Short term	Prosperity
	5b) Shed 8-1 Roof recladding	Upgrades to Shed 8-1.			Environment
	5c) Auto deluge system	Provision of auto deluge system. Wash down and drain improvements provide an environmental control benefit.			People and Partnerships
	5d) Fire system	Completion of Berth 8 Shed Precinct Fire Ring Main.			





Port Master Plan Development Items

Home

Section 1

Section 2

Section 3

Section 4

Item		Scope / Additional information	Trade / Sector	Timeframe	Materiality Survey Theme
6) Berth 8 Capacity Development	Berth access and material handling infrastructure upgrades	Internal road upgrades and provision of safe walkways.	Bulk Materials	Medium term	Prosperity
		Shed 8-10 development, and relocation of lower load rate products to Berth 5/7 to maximize Berth 8 throughput.		Short term	
		Shed 8-11 development			
		Materials handling capacity upgrades and trade product optimisation			
7) Berth 14 Development	7a) Hardstand upgrade	Hardstand upgrade utilizing old power station site.	Bulk Materials	Short term	Prosperity
	7b) Transport + infrastructure corridor	Transport and Services Infrastructure Corridor development. Including Northern Side IH HV retic extension, north port rail multi user line		Medium term	
	7c) Berth 14 Development	Development of new Berth 14.		Short term	
8) Precinct Development	8a) Workshop upgrades	Workshop upgrades including general civil works, Operations office, fencing swipe gates and turn style.	Support services	Medium term	People and Partnerships
	8b) New Administration office	Administration office relocation to inner harbour		Short term	
9) Liquid Bulk Facility		DG / hazardous goods storage area development.	Bulk Liquids	Short term	Prosperity
10) Tug Facility	Development of new tug pens to support the relocation of tug, line and pilot vessels.	Interim location in casting basin	Support services	Short term	Prosperity
		Long term location as part of berth 14 development		Long Term	
11) Bio-security Zone		Implementation of security measures for a Bio-security zone, including fencing, quarantine and inspection facilities.			Short term





Port Master Plan Development Items

Home

Section 1

Section 2

Section 3

Section 4

	Item	Scope / Additional information	Trade / Sector	Timeframe	Materiality Survey Theme
12) Port Related Development Area	12a) Land development for port related industry	Landfill and civil engineering east of the Preston River to support future general port related land development and intermodal infrastructure. Including raising of land levels, allowance for services and lot formation, flood management and port industry development.	Operational area	Long term	Prosperity
	12b) Waste storage / management	Development of a dedicated waste storage and management area. Allowance for dry and wet waste required.		Short term	Environment
13) Other Projects	13a) Outer Harbour decommissioning	Decommissioning of the outer harbour berths (Berth 1 and 2). Dependent on discussions with other stakeholders (DoT, SWDC, etc.).	-	Short term	People and Partnerships
	13b) Turkey Point access bridge	New access bridge at Turkey Point to support separation of public and Port activities. Wetland offset area (associated with turkey point project)			
14) Seawall Renewal Program	14a) Inner Harbour groyne, detached breakwater	Demolition of outer section of groyne and detached breakwater. Maintenance and upgrades to inner section of groyne.	Operational area	Short term	Prosperity
	14b) Inner Harbour west rubble shoreline	Construction of an additional 500m of new revetment.			
	14c) Berth 3 Revetment	Demolition of existing structure and construction of 400m long revetment using stockpiled and imported rock.			
	14d) Maintenance of coastal protection structures - Various	Including maintenance and upgrades to: <ul style="list-style-type: none"> - Outer Harbour sand trap groyne and main breakwater (north) - Inner Harbour west training wall and revetment - Casuarina Harbour revetment (northern) - Inner Harbour east training wall - Berth 4 revetment. 		Medium term	
15) Carbon Net Zero		Mixed initiatives to target net zero emissions in line with State requirements in the short through long term.		Long term	Environment





Future Port Expansion Potential

The Port Master Plan outlines the expected trade scenarios for the next thirty years, providing infrastructure solutions to meet this forecast trade.

However, there is an inherent level of uncertainty within these forecasts. As experienced in recent times in Australia, unexpected events can lead to significant changes in what and how Ports trade, but can also open up new opportunities.

It is therefore important to build flexibility into the Bunbury Port Master Plan, but to also look towards and past the thirty-year horizon to consider long-term possibilities, even if these are not completely understood or even expected in the present day.

Understanding how the Port Master Plan could lead into future expansion opportunities is a key part of the process, as a Port Master Plan seeks that “you not do today what you must undo tomorrow”.

The figure provided demonstrates how the Port could possibly expand in the thirty year plus timeframe past the present Port Master Plan assessment period.

It also demonstrates that the Port is able to support increased existing, new or unexpected trades if required in the shorter term through expansion opportunities.

Future expansion opportunities could include additional land development, wharf infrastructure through extension of the Inner Harbour basin and new road and rail infrastructure, or a combination of all these components depending on the type and quantum of future trade opportunities.



Figure 4.3
Future port expansion potential items





Port Master Plan Potential Expansion Development Items

In addition to the Port development options, additional items that extend beyond the 30 year timeframe have been identified, forming part of the Bunbury Port Master Plan and summarised below.

Item	Scope / Additional information	Materiality Survey Theme
1) Berth 3 upgrade	Backfill and upgrade of the wharf apron area at Berth 3 would increase the berth capacity to facilitate a greater range of multi product operations and develop synergies with the co-aligned Berth 5 and Berth 7 operations.	Prosperity
2) New Berth 9	Development of Berth 9 to support future port product throughput growth. Berth 9 will be co-aligned with Berth 3, 5 and 7 to maximise operational flexibility.	Prosperity
3a) Estuary Drive relocation	In line with the Revised Inner Harbour Structure Plan, should trade through Port of Bunbury exceed the Inner Harbour wharf capacity the potential exists to develop an extended Inner Harbour basin. This would require the relocation of Estuary Drive.	Prosperity
3b) Deepen channel and harbour	In line with the Revised Inner Harbour Structure Plan and based on future trade growth and increases in vessel fleet dimensions, there could be requirement to undertake additional dredging within the existing channel and basin. This could also include any Inner Harbour basin extension. Consideration to maintain the integrity of the Yarragadee aquifer will be required.	Prosperity
3c) Preston River relocation	Any future expansion of the Inner Harbour basin would need to consider the impact on the Preston River. Presently this requirement is outside the span of the current master planning.	Prosperity
3d) New inner harbour basin and berths	In line with the Revised Inner Harbour Structure Plan and based on potential future trade growth and increases in vessel fleet dimensions could require Inner Harbour basin extension with multiple berth development potential.	Prosperity
3e) Port land development	In line with the Revised Inner Harbour Structure Plan and based on future trade growth the development of land area to support port related trade and operations could occur.	Prosperity
3f) Port freight road	Realignment of Estuary Drive could allow the opportunity to develop a separate freight corridor link between Willinge Drive and the Inner Harbour.	People and Partnerships
3g) Transport and commercial zone	Port related commercial services and transport corridor provision area.	Prosperity
4a) Hydrogen products berth	Due to emerging market potential and growth in the renewable energy sector the requirement to safely store and export green Hydrogen based products could require development of additional dedicated liquid bulk facilities. This would include an infrastructure corridor reservation of approximately 50m width to locate pipeline and service infrastructure connecting the liquid bulk facilities to the berth infrastructure.	Prosperity
4b) Liquid bulk storage area	Increased hydrogen related bulk liquid products could require additional storage facilities outside the liquid bulk facility area.	Prosperity
5) Koombana Drive buffer zone	Management and development options of the Port – City interface area on Koombana Drive to reduce visual, emission and noise impacts from port trade and operations.	People and Partnerships
6) Berth 8 extension	Potential extension of Berth 8 to facilitate greater trade and operational flexibility.	Prosperity
7) New rail infrastructure	Relocation of the south rail corridor and potential development of new rail sidings adjacent to new Inner Harbour basin.	Prosperity





Sea Level Rise

Home

Section 1

Section 2

Section 3

Section 4

Port Land and the berths are protected from wave influence from the west by rock protection structures (including the main Bunbury breakwater). These structures, consisting of a rock walls, groynes and breakwaters, protect Port operations and are the first line of defence protecting Port infrastructure. As such, they require continual monitoring and maintenance due to exposure to the Indian Ocean and the varying ages and methods of construction of the revetments. Some form of the main breakwater has been in place since the late-1800s.

The Western Australian Government has outlined Sea Level Rise (SLR) predictions till 2100, aiming to inform current and future developments as to the potential impacts of climate change along the coastline. In 2010 the WA Planning Commission specified that SLR should be taken as +0.9m by 2100.

A high level review of the Port's land area compares the relative level of Port land to Highest Astronomical Tide + SLR predictions for 2050 and 2100. The review indicates there is in excess of 1m between the highest predicted tide in 2100 and current land levels for the main inner harbour basin area. Areas south of the existing basin are lower, which is expected as it is presently flood prone from inland water sources. While storm surge would increase potential water levels during a storm event, the relative land levels of the existing basin are sufficient that the port risk remains low in the short to medium term. Given the relatively protected nature of the Port, the impacts due to storm waves are considered negligible.

The Coastal Hazard Risk Management & Adaptation Planning (CHRMAP) study for the region predicts coastal hazards from erosion and inundation over 100-year planning timeframe. The City of Bunbury has released its CHRMAP for parts of Koombana Bay, which does not cover the Port, however extends to the western boundary.

Erosion hazard lines show that the land immediately west of the Port is at risk in the short to medium term, though this is somewhat lessened by the sand capturing structures (groynes) in place.

Inundation hazard mapping to the west of the Port show inundation is expected to be a growing hazard to the Port over the next 100-years, mainly due to sea level rise. Sea level rise for 2070 is set to 0.5m in the CHRMAP process. The general coastal adaptation strategy for erosion and inundation in the CHRMAP for the town and foreshore is a future **Protect** option. Floodway and drainage systems located adjacent to the port will need to be considered in an integrated manner as the port and adjacent areas develop to ensure protection from inundation and flooding events. This extends to include the transport corridors providing connectivity to the port from its hinterland.

Removing inundation pathways can also assist in reducing the risk to the Port, particularly when surrounding land lay may be lower (such as south of the Preston River). Based on the CHRMAP inundation mapping and evaluation of Port land levels, the Preston River and surrounds is likely to see inundation and therefore presents the greatest longer term future risk to operations. Raising land levels along this southern boundary or use of protection structures such as bund walls could be considered in the future to remove the inundation pathway.





Future of Ports

- Home
- Section 1
- Section 2
- Section 3
- Section 4

As Ports move forward into the future, there is a shift occurring in how Ports operate, whether it be a change in the type of commodity throughputs, how Ports are run from a carbon footprint perspective, or the ever increasing impact of digital technologies in the Port environment.

The influence of renewable energy sources in the Bunbury region opens up an opportunity for new trade throughputs, where the resources and infrastructure to support renewable energy generation may pass through the Port. The Port of Bunbury itself can also make use of this renewable energy to minimise environmental impacts moving forward.

'The Western Australian Climate Policy sets out the State Government's plan for a climate-resilient community and a prosperous low-carbon future.'

The Western Australian Government has recently outlined its aspiration of achieving net-zero emissions by 2050 in its climate policy. As Port Authorities operate under the jurisdiction of the WA State Government, the Port of Bunbury is just one of the operations seeking to achieve this goal.

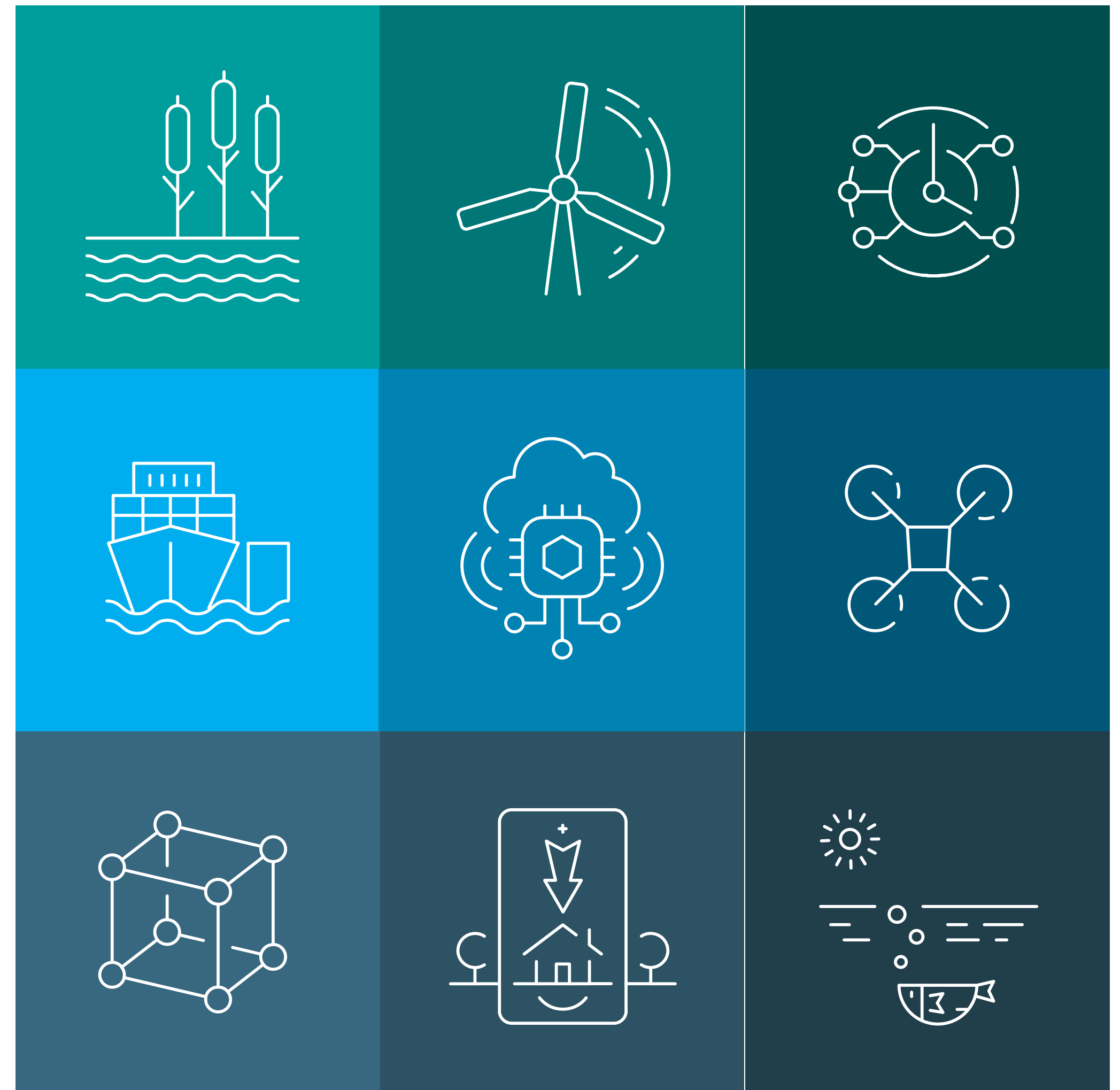
The influence of digital technology is another example of how the Port environment may change into the future.

Digital technology is driving how people, businesses and governments think and operate.

Digital innovation has the potential to influence all aspects of Port operations, with the ability to improve connectivity and scheduling, and to create and improve the efficiency of operational methods. Digital technologies also have the ability to change how a Port views, measures, and reports various aspects across trade, infrastructure and the environment, with space for continuous improvement and innovation.

Examples of digital technologies within the Port environment include the use of smart asset management systems, increased automation, drone technology, digital twinning and improved digital interfaces.

Another aspect to be considered in the changing Port space is the increased weight being given to environmental, social and governance (ESG) metrics. These metrics, which aim to understand and integrate the value of intangible assets and influences into business decisions, allow a more well-rounded decision making process. ESG influences are some of the key drivers in the Port Master Planning process, and are becoming increasingly integrated into day-to-day decision making in the Port environment.





Conclusion

Moving Forward

Southern Ports' vision is "Strong regional ports, strong regions" and the Port Master Plan seeks to practically demonstrate the port development pathway that supports the development of a strong regional port.

This Port Master Plan is considered a living document that forms the basis for the articulation of Southern Ports' vision for the future.

Through promoting greater understanding of Port needs, the Port Master Plan allows the integration of the Port into a broader network consideration with local, regional and state planning agencies and port related businesses.

Continued discussions with a broad range of Bunbury Port's interested and affected stakeholders and frequent presentation of the plan will allow Southern Ports to capture commentary that allows the necessary testing, review and future updating of the plan.

The Port of Bunbury Master Plan demonstrates that the Port has a variety of growth opportunities, particularly in terms of new commodity throughput. The Port is well positioned given the available land and capacity for introducing new berths into the protected basin. There are also options to improve throughput via efficiency gains by making the best use of existing infrastructure.

Key development items for the Port include two new berths within the protected harbour to support increased bulk material throughput, including mineral sands and concentrates, and for increased multi-user capability for new commodity opportunities such as containerised cargo and vehicles.

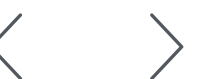
The Port Master Plan is built on the foundation of the market demand assessment. Review of the actual trade volumes compared to the market demand forecast volumes, and also the continuous testing and review of the assumptions that drive the market demand forecast is necessary. As such, regular review of the Port Master Plan, in the context of dynamic strategy, policy, trade, economics and stakeholder needs is encouraged, allowing for the plan revision to be rigorously undertaken from the ground up.

This Port Master Plan seeks to highlight the current and future opportunities presented by the Port of Bunbury, outlining a strategy to meet forecast trade which has been informed by a wide variety of stakeholders, regional economics and relevant Port policies at a local through state and national level.

In combination, these elements make up the key drivers of the Bunbury Port Master Plan.



Source: Infrastructure Australia, 2013





Get in touch

BUNBURY
PO Box 4 Bunbury, WA 6231 T: +61 8 9729 6500
E: enquiries@southernports.com.au
https://www.southernports.com.au/bunbury

STRONG REGIONAL PORTS, STRONG REGIONS.

Document control:
 Plan - BUN - Port Master Plan - CM Record No: D23/2087

TITLE	DOC. NO.	REVISION	DATE
PORT OF BUNBURY - PORT MASTER PLAN	SPA-POB-PMP-G-00001	0	26.04.2023

