PORT OF PORTLAND

PORT OF PORTLAND PTY LTD

PORT DEVELOPMENT STRATEGY 2018

December 2018

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If you wish to obtain further information on this document, please contact the POPL Chief Executive Officer on (03) 5525 0911.

Acknowledgements

POPL recognises the contributions made by its customers and stakeholders in formulating the development vision for the Port of Portland.

Published by Port of Portland Pty Limited
23-25 Kunara Crescent, Portland, Victoria 3305

31 December 2018

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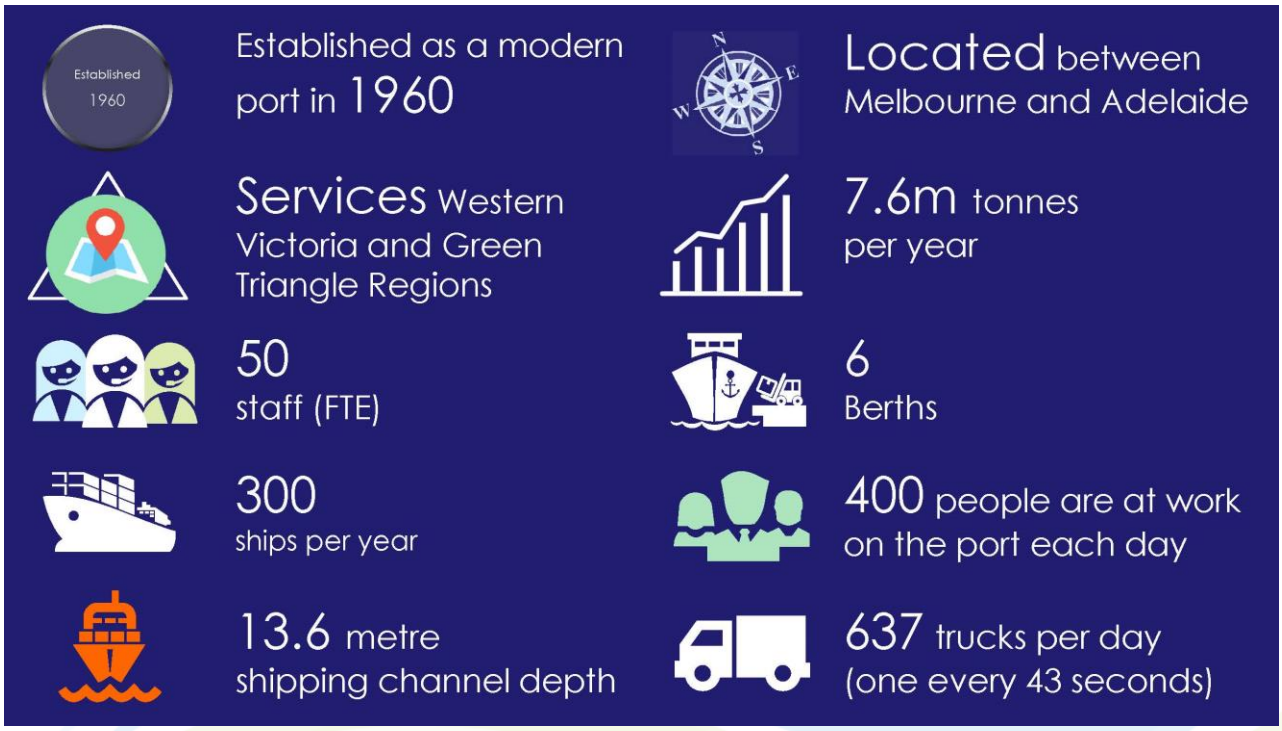


Why have a Port Development Strategy?

Port of Portland ("POPL" or "the Port") is one of Victoria's four major ports along with Melbourne, Geelong and Hastings.

Port of Portland provides an international gateway for export and import of bulk commodity products, including forestry products from renewable plantations, mineral sands, aluminium products, grain, fertilisers, livestock and wind farm components. For the 12 months prior to 30 June 2018, the Port handled a record 7.6 million tonnes of cargoes (see Chart 1), an increase of 135% since the prior Port Development Strategy was prepared in 2009.

This Port Development Strategy ("PDS") is prepared in accordance with Section 91K of the *Port Management Act 1995* (VIC), which requires all Victorian Ports to periodically identify and articulate capacity and infrastructure issues within the port. Ministerial guidelines have been followed.

What has changed since 2009?

This PDS replaces the Port Land Use Strategy published in August 2009 ("August 2009 PLUS").

Since issue of the August 2009 PLUS, the Port has more than doubled its annual throughput due to the rising importance of two emerging industries within the Port catchment area: the forestry industries located in Green Triangle region and the mineral sands mining industry located in the Murray Basin. The period from 2009 saw a rapid rise in export volumes arising from the maturing of the Managed Investment Scheme ("MIS") blue gum forests planted in the previous decade, and the opening of large-scale mineral sands mining operations by Iluka Resources Limited ("Iluka"). These increases were in line with the forecasts presented in the August 2009 PLUS.

The Port and its customers have responded to these significantly increased volumes with improvements in infrastructure and efficiencies, with the Port and many customers investing in more efficient product storage and handling capability. These improvements have allowed the Port and its customers to double volumes within the same port land boundaries and without the need to construct additional berths.

Future trade growth

In early 2017, following nearly ten years of steadily increasing volume growth, the Port embarked upon a major market study project to determine the trajectory of this growth: firstly, to understand whether it would continue at the present rate, and secondly, to determine the Port's sustainable volume levels in the long term.

The analysis found that the exponential growth experienced during the previous few years would slow and then gradually reverse from FY19 onwards, with the decline attributable to the maturing of the MIS-planted forests, the exhaustion of the current Iluka mineral sands deposits and the potential closure of the aluminium smelter. The outlook therefore was a long-term, sustainable total volume at around the 5 million tonnes per annum (mtpa) level, or 34% lower than the FY18 high point.

Conclusions arising from the market study

The conclusion to be drawn from the market studies is that Port volumes are likely to have peaked in FY17 and FY18, and that with a declining trade outlook, there will be no requirement for significant new investments in on-Port infrastructure within the next five years. The overarching Port strategy will therefore be to consolidate the Port's position as the gateway to the western Victorian region and to improve the Port's current operations.

The market studies also provided signposts for the Port in respect to potential high case scenarios, such as the development of new mineral sands mines or a wood pellet manufacturing facility. The Port will consider the possible construction of additional infrastructure should any one of a number of key elements come to light, with any such investments subject to a full business plan prior to proceeding. These elements are explored in this PDS.

Overview of issues

The major infrastructure issues affecting the Port can be summarised as follows:

- rail and road infrastructure continue to be a major issue for the Port, its customers and the regional and local communities. In particular, the lack of an integrated rail solution means that almost 100% of the 7.6 million tonnes per annum in Port-related transport is by road, such that a truck enters the Port every 43 seconds. These transport issues can be summarised as:
    - The need to upgrade to Maroona-Portland rail line to 23 Tonne Axle Limit ("TAL") rating;
    - The need to reinstate the Mt. Gambier-Heywood line, also to 23 TAL rating;
    - The need to construct a common-user rail receival facility adjacent to the Port, and
    - The need to adequately maintain the major road linkages to the Port, as they have suffered badly due to very high volumes of heavy transport.
- There is considerable uncertainty as to the future of the Portland Aluminium operations beyond the current 4-year Government support period. This is a critical issue for the Port as it handles approximately 1 million tonnes per year in aluminium-related products, and the closure of the operations may make the Smelter Berth and part of the land available to the

Port for alternate use. This may potentially counter any future requirement to construct a new berth.

- There has been no material change to the Port's land footprint since the release of the August 2009 PLUS. Access to on-port land is a critical element for exporters in particular, as the "last mile" costs can be very significant. Whilst POPL's long-term customers generally enjoy very good access arrangements, potential new entrants to the Port can be at a disadvantage.
- Likewise, there has been no change to the Port's land boundary issues, with the Port still enclosed on two sides by residential neighbourhoods. The Port's special position within regional and State economies has afforded the Port special planning status, but this is tempered by the Port's place within the community and its desire to be a good neighbour.

Implementation and partnerships

This PDS examines a range of issues facing the Port in considerable detail and, where relevant, offers key recommendations for their mitigation or resolution.

The Port acknowledges that implementation of these key recommendations will require cooperation between the Port, Port tenants, local councils and the Victorian, South Australian and Federal Governments.

Port management looks forward to working with all stakeholders so that together we can deliver solutions to the issues we all face to deliver benefits to the Port, the Portland community and Victoria.

1. Introduction

1.1 Strategic significance of the port

The Port of Portland ("POPL" or the "Port") is one of the State of Victoria's four major ports, along with Melbourne, Geelong and Hastings.

The Port dates back to 1800 when Lieutenant James Grant sailed the Lady Nelson into what he named Portland Bay, which became Victoria's first permanent settlement in 1834. From then on, the Port has played a pivotal role in the economic prosperity of the region and the State.

In 1945, the Victorian Parliamentary Public Works Committee recommended the Port be upgraded to help develop Western Victoria. It was officially opened in November 1960 and privatised in 1996.

The Port is a deep-water bulk commodity port on the Western Victorian coast, located within the township of Portland and between the Ports of Adelaide and Geelong. It provides an international gateway for export and import of bulk commodity products and is the natural export port for the adjacent Green Triangle and Murray Basin regions of Victoria and South Australia. The Port handles a range of products, including forestry products from renewable plantations, grain, mineral sands, aluminium products, fertilisers, livestock and wind farm components. The Port is a significant economic infrastructure asset to the region and the State, handling a record 7.6 million tonnes of cargoes in FY18, valued at over $2 billion.

The Port's key strategic advantages can be summarised as follows:

- close proximity to its major bulk commodity customers in the Green Triangle and Murray Basin regions and to the aluminium smelter at Portland;
- deep-water (13.6 metre) access direct from the Southern Ocean and berths that are capable of handling the large bulk vessels that transport these commodities to export markets;
- established and efficient bulk and break-bulk cargo handling facilities and capabilities; and
- linkages to major rail and road networks across western Victoria.

These key strategic advantages are countered by the Port's relatively remote location in respect to major Victorian and South Australian population centres and associated industrial activity. This means that the potential for Port volumes to increase is largely governed by any planned expansion by current customers and by any potential new entrants into the Port catchment area.

The Port is 100% privately owned by Palisade Ports Pty Ltd, an investment managed by Palisade Investment Partners Ltd. Palisade Ports Pty Ltd is owned by Australian superannuation funds.

1.2 Purpose of the PDS

The Port Development Strategy ("PDS") is prepared in accordance with the provisions of *Port Management Act 1995* (Vic) ("PMA") to identify capacity and infrastructure issues within the Port.

The primary aim of a PDS is to:

- Articulate a port development vision to stakeholders
- Create economic value by supporting industry understanding, confidence and investment
- Maximise the efficient allocation of critical port land and infrastructure
- Assist supply chain efficiency by providing transparency in the broader transport network task and infrastructure requirements
- Help address relevant environmental and social issues by providing strategic information
- Build goodwill to engage stakeholders and clients

Creation of the PDS also meets the requirements of Section 91K of the PMA which requires all Port authorities to prepare a PDS.

Section 91M of the PMA goes on to provide the legislative standing for issue of the *Ministerial Guidelines for Port Development Strategies* (July 2017) ("the Guidelines"). These Guidelines address the key requirements outlined in the PMA, and states that such strategies are to be prepared at intervals of five years.

The Guidelines also lay out "Indicative Contents" for the preparation of a new PDS.

POPL has elected to use the framework set out in the Guidelines to ensure that all obligations under the PMA are complied with.

1.3 Port precincts and breakwaters

The Port of Portland is a sheltered deep-water port on the south-west coast of Victoria, offering all-weather access via a 13.6-metre-deep north-facing channel and two man-made breakwaters. The operational Port covers two areas totalling 68 hectares, plus a remote Quarry site of 37 hectares:

- the main Port area covers approximately 63 hectares, which extends from Trawler Wharf on the eastern boundary to the southern end of the Incitec Pivot fertiliser plant;
- a secondary area covering approximately 5 hectares known as the Canal Court site, which extends back from the main area along the canal towards Fawthrop Lagoon; and
- a third area of approximately 37 hectares known as the Quarry site, located at Point Danger, approximately 6 km from the main Port area. Only a relatively small section of this site is suitable for operational purposes.

The Port extends approximately 600 metres seaward from its frontage to Cliff Street, Henty Highway and Madeira Packet Road.

Breakwaters

The Port of Portland is protected by two man-made breakwaters, both of which were constructed in 1960 as part of the development of the modern port.

- The Main Breakwater is located to the east of the Port in a north-south alignment, providing protection for the Port from the Southern Ocean. This breakwater is a very significant piece of infrastructure. It is home to the Smelter and KS Anderson Berths, Transit Sheds Nos. 1 & 2, the GrainCorp shiploader, the Smelter Berth ship unloader and conveyor, and a range of other smaller buildings and laydown areas. This breakwater is within the Port main secured area and is not open to the public.
- The Lee Breakwater is located to the north of the Port in an east-west alignment, providing protection to the Port from Portland Bay. This breakwater is a simpler structure compared to the Main Breakwater; it is a dual roadway's width, and home only to the SL Patterson wharf. When not being used as a cruise ship or a fumigation berth for logs, this breakwater is open for public access and is a very popular fishing location for local residents.

Both breakwaters are well maintained and are in sound condition.

The entrance to Portland Harbour is via the 300 metre wide shipping channel between the arms of the two breakwaters in the north-easterly corner of the harbour. The channel is rated to a depth of 13.6 metres.

Berths

The Port comprises five bulk cargo berths and a sixth berth used primarily for visiting cruise ships or as a layover berth for loaded log vessels being fumigated prior to departure. A further two smaller berths, Berth Nos. 3 and 4 were planned to be constructed at the southern end of the Port, between Berth Nos. 2 and 5, but did not proceed due to difficult vessel access and berth depth issues. The Port also maintains dedicated tug and pilot boat berths located away from the main Port area in the Marine Precinct. All six operational berths, detailed in **Table 1** below, are well maintained and are in sound condition.

Photo taken: May 2012

Table 1: Port of Portland berths

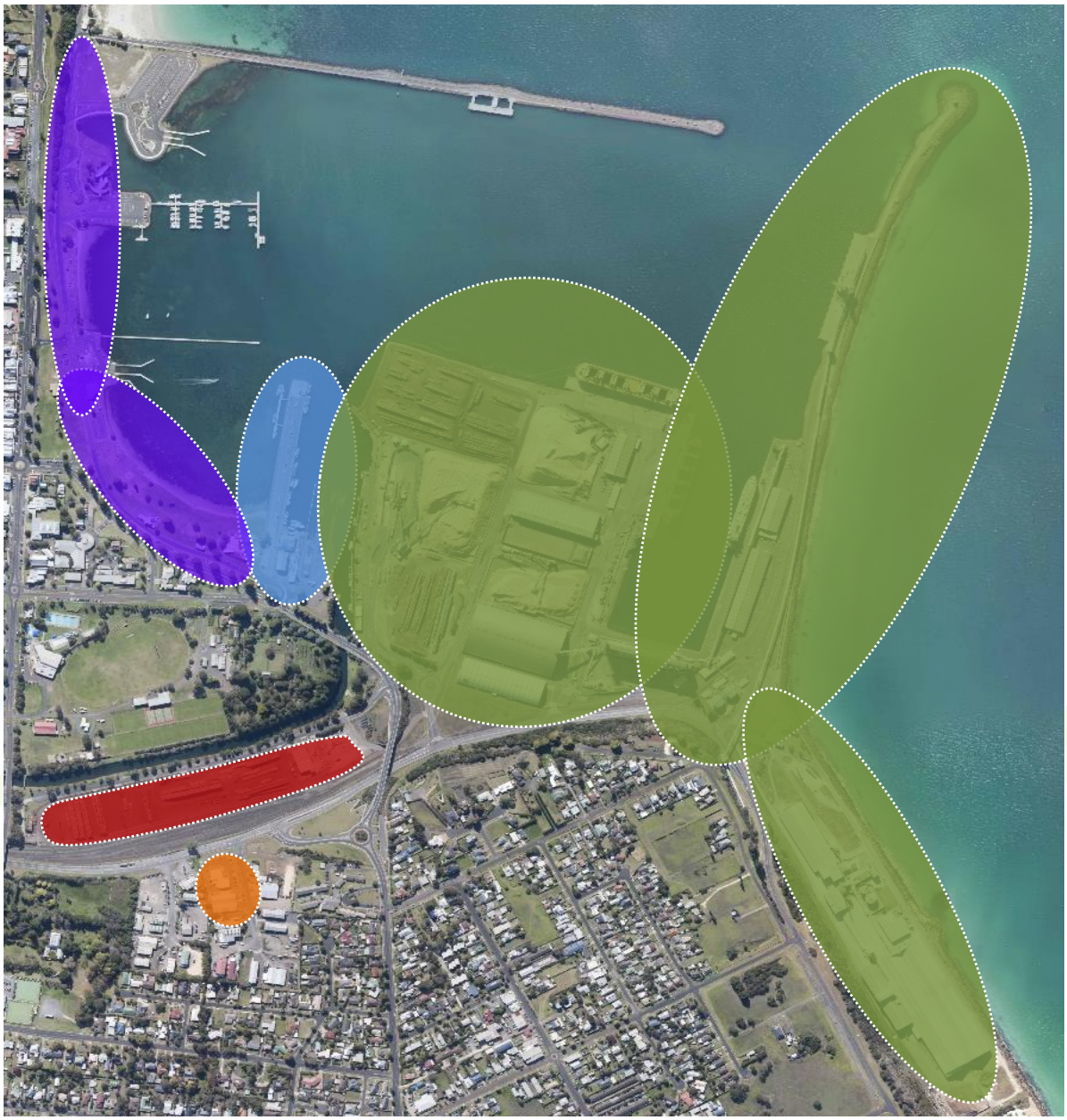
Berth	Built	Cargos	Approximate volume FY18
KS Anderson Berth No. 1	1960	Bulk woodchips and grain, livestock, fertiliser	2.3 mtpa
KS Anderson Berth No. 2	1960	Fertiliser, livestock, Smelter raw materials	0.1 mtpa
Berth No. 5	1978 (stg 1) 1986 (stg 2)	Bulk mineral sands imports and exports, ingots, fertiliser, logs	1.8 mtpa
Berth No. 6	1965	Bulk woodchips, bulk mineral sands imports, logs, wind farm components	2.7 mtpa
Smelter Berth	1981	Bulk alumina and other aluminium feedstock imports, fertiliser, logs, livestock	0.6 mtpa
SL Patterson Berth	1962	Converted from a tug berth in 2014 to a Cruise ship berth and layover berth for fumigation. No facilities for cargo loading or unloading	Nil

Port Precincts

The Port has five main precincts:

1. Main Port area
2. Marine Precinct
3. Administration Precinct
4. Portland Foreshore Precinct
5. Port Quarry site

An overview of the current uses and infrastructure within each precinct is provided below:



	Main Port area
	Marine Precinct
	Administration Precinct
	Portland Foreshore Precinct
	Canal Court

Main Port Area - storage and lay down

Being primarily a bulk commodity port, POPL has significant bulk storage and lay down areas to facilitate its customers logistical requirements. Whilst the Port owns all of the land and some buildings and equipment, many of the tenants have constructed extensive commodity storage and handlings facilities, such as the Portland Chip Terminal, which is owned and operated by Australian Bluegum Plantations and is the largest woodchip terminal in Australia. Also of note are the extensive grain handling and storage facilities owned and operated by GrainCorp Limited, the large fertiliser facilities owned and operated by Incitec Pivot Limited, the dedicated unloading facilities on the Smelter Berth and the specialised mineral sands storage and loading facilities owned and operated by POPL.

	North West Corner
	Mineral Sands Shed
	Bunker Site
	No. 2 Quay
	Canal Court
	Incitec Pivot
	GrainCorp
	Portland Chip Terminal
	Transit Sheds 1 & 2

The laydown and storage areas also include the site known as Canal Court, which was originally separated from the main Port area by the Cliff Street roadway, creating significant problems for the Port and residents when trucks crossed the Cliff Street intersection. The Cliff Street overpass was built in 2006, allowing Canal Court to be linked directly to the main Port area. This major initiative has led to significant efficiency and safety improvements, as it enables the use of oversize vehicles to transport logs from storage on Canal Court directly to the berths without having to venture onto public roads or interact with local traffic.

Table 2 set out below outlines the location of each current storage option within the port area and includes a description of the size and use of these storage units.

Table 2: Port of Portland storage areas and handling facilities

Port area	Size (hectares)	Current Use
North West Corner	3.7 ha	Log storage and staging (open hardstand)
No. 2 Quay	1.9 ha	Short term laydown, currently used as a storage area for wind farm components (open hardstand)
Canal Court	4.7 ha	Log storage and staging (open hardstand)
Incitec Pivot site	10.9 ha	Fertiliser storage (storage sheds and some open hardstand)
GrainCorp sheds and grain handling facilities	1.9 ha	Storage and handling facilities for bulk grain (storage sheds, silos, bulk grain intake facility and KSA1 shiploader)
GrainCorp woodchip site	4.6 ha	Bulk woodchip storage and loading (open hardstand 1.9 ha and storage sheds 2.7 ha)
Portland Chip Terminal	7.5 ha	Bulk woodchips storage and loading (open hardstand)
Mineral Sands shed	3.0 ha	Bulk mineral sands storage (storage shed and shiploader)
Bunker site	0.5 ha	Short term laydown (open hardstand)
KSA Berth transit sheds	0.8 ha	Short term laydown (storage sheds x 2)
Quarry site	37.2 ha	6 km from main Port area, limited useful area, approximately 2 ha of open hardstand, currently used for log and wind farm component storage

Marine Precinct

The Marine Precinct is an area of approximately 1.7 hectares located on the western boundary of the Port, covering the area between the Trawler Wharf to the west and including the canal to the east.

Table 3 set out below demonstrates how this area is divided amongst the tenancies, and what they are used for.

In short, apart from housing the berths for the POPL tugs and pilot boats, there are no other Port-related activities undertaken in this area, and it is considered to be a "buffer zone" between the Port and the Portland Foreshore Precinct.

Approximately half of the area is leased to two commercial businesses; a boat repair and chandlery businesses and a retail fish market, with the 300-tonne slipway also leased to the boat repair business. The 100-tonne slipway has been decommissioned and dismantled, with only the concrete formwork remaining. A number of the facilities in this area are in very poor condition, with the Port's consulting engineers recommending that the northern section of Fishermen's Wharf be demolished. They also noted that some potential pollution may arise from sediments associated with historical boat defouling activities identified near the slipways.

	Tug berth
	Pilot berth
	Volunteer Coast Guard berth
	Portland Ocean Steel
	Portland Fish Market
	100 & 300 tonne slipway

Table 3: Marine Precinct areas

Port area	Size (hectares)	Current Use
Tenancy No. 1	0.3 ha	Currently leased to a commercial marine repair business
Tenancy No. 2	0.05 ha	Currently leased to a commercial seafood market business
300 tonne slipway	0.4 ha	Currently leased to the same business as Tenancy No. 1
100 tonne slipway	0.8 ha	Comprises a decommissioned 100 tonne slipway and a carpark area, not leased
Tug berth	-	Berth for POPL's two tugs
Volunteer Coast Guard	-	Berth and building for the Volunteer Coast Guard
Fishermen's Wharf	-	Berth and buildings for POPL's pilot boats and one commercial fisherman

Administration Precinct

As foreshadowed in the August 2009 PLUS, the Port has taken steps to relocate administrative functions from the main Port areas to free up valuable land for operational purposes[1]. To this end, the Port administration building was relocated from the main port area in 2012 to its present site at Kunara Crescent, and the Port engineering buildings and facilities were relocated from Canal Court to Kalina Court between 2009 and 2015. Kunara Crescent is now the principal administrative area for the Port.

Portland Foreshore Precinct

The Portland Foreshore Precinct is not part of the Port of Portland but is an integral consideration for the Port as it is located within Portland Harbour.

This precinct is located between the Marine Precinct and the Lee Breakwater and is an important civic asset for the township. Its picturesque, beach-side location is regularly used by citizens and tourists, and is home to a range of local organisations, such as yachting, fishing, boating and cadet clubs, the Portland marina and a large public boat ramp and parking facility. It is also home to the Trawler Wharf, which accommodates Portland's large fishing fleet.

The Portland Foreshore Precinct and several of the facilities within the precinct, including the marina and the Trawler Wharf, are managed by the Glenelg Shire Council. The Port does not play any part in the management of this precinct.

[1] Port of Portland – Portland Use Strategy, August 2009, page 67.

Port Quarry site

POPL owns the Port Quarry site of 37 hectares located at Point Danger, approximately 6 km south of the main Port area. As the site was the source of the rock for the two breakwaters when they were constructed in the late 1950's, much of the area comprises either the old quarry workings or the rugged cliff-tops of Point Danger. The Quarry is still used intermittently as a source of replacement shield rock for the breakwaters. Approximately 2 hectares of the site has been levelled and hardstand has been laid down. This site is currently used for log and wind farm component storage.

The rugged and uneven nature of this site and its distance from the Port makes much of this area currently unsuitable for most Port customers, but there is scope to level or develop additional land should a suitable project emerge.

2. Port Development Strategy

2.1 Port Vision and Strategy statement

Port Vision

The Port's strategic vision has been expressed in the following statement:

"We enable our customers to access global markets by providing reliable, safe and high-quality infrastructure and port services that will add value for customers, employees, shareholders and the community."

This statement makes it clear that the Port is essentially an enabling enterprise – its business is to assist other businesses to access global markets in the most efficient and productive manner. In this context, the strategic vision of the Port will mirror the requirements of its current and future customers, which themselves will be a reflection of the current and potential future commodity trades flowing from and into the Port's catchment area.

This document therefore is an expression of the Port's expectations in respect to the future of bulk commodity transportation in western Victoria – the opportunities available and the challenges to be overcome.

Strategy statement

The Port of Portland's Port Development Strategy will be determined by its outlook for future trade within the Port's catchment area, and its assessment of how best to address the issues that arise from that outlook.

2.2 Port 25-year trade forecasts

The Port's 25-year trade forecasts, as detailed in Section 4 below, were initially prepared in 2017 and updated as part of the POPL FY19 budget process.

These forecasts, which were prepared in the midst of an exceptional growth period for the Port, are a means of understanding the future infrastructure needs for the Port and its customers. The forecasting process involved considerable consultation with customers, supply chain participants, mining and farming groups and local and international commodity trade experts. The forecasts were prepared as base, high and low case scenarios, as follows:

Base case outlook

The base case scenario is an important tool for Port as it is used as its financial budget for the current year. It represents the Port's conservative view of the most likely outcome in the short term.

The base case scenario arising from the 25-year trade forecasts indicates that:

- Port volumes are likely to have peaked in FY18 at 7.6 million tonnes per annum ("mtpa");
- volumes are likely to gradually decrease between FY19 and FY24 to approximately 4.9 mtpa; and
- volumes will stabilise around the 4.9 mtpa level over the remainder of the 25-year forecast period.

While the reasons for this significant movement in trade volumes are analysed in detail in Section 4, by way of summary, the base case forecast of a net 2.7 mtpa reduction is largely based on the following assumptions:

- the decline of the forestry trade by 2.3 mtpa (5.9 mtpa to 3.6 mtpa);
- as a conservative measure, the closure of Portland Aluminium ("the Smelter") (1.0 mtpa to nil);
- offset by the resumption of mineral sands exports (nil to 0.4 mtpa); and
- no new trades or industries emerging in the POPL catchment area.

The base case outlook indicates that the Port is well placed to handle expected volumes into the future, and that under this scenario additional berth capacity should not be necessary to cater for future growth. The expected reduction in log volumes may allow logs to be concentrated at the North West Corner of the Port, which will free up some of Canal Court for potential new developments, such as a new mineral sands handling facility if the WIM projects in the Donald/Horsham region, or a facility for the handling of wood pellets, should either of those projects proceed.

It is noted that until 2011 the Port experienced stable volumes at the 3 mtpa level. Volumes gradually increased to the 7.6 mtpa level in FY17 and FY18, at which point berth utilisation rates of 80% were experienced and delays occurred. The reduction to volumes at the 5 mtpa level represents a normalisation of trade and an expected return to industry-average berth utilisation rates of around 60%.

Actual total Port volumes for the five months to November 2018 are 8% down compared to the same period to November 2017, indicating at this stage that FY18 may indeed have been the peak year as forecast. Total FY19 year to date volumes are currently 11% higher than base case (budget) levels, suggesting that the rate of decline may not be as steep as forecast in the base case.

High case outlook

The high case scenario is essentially the result of all the high case forecasts for each commodity being added together and represents the Ports expectation of the absolute maximum volumes possible. This should therefore be considered to be a "stress test" as opposed to a realistic outcome.

This scenario indicates that:

- forestry products have not yet peaked, but instead climb to 6.7 mtpa in FY19 and FY20 before gradually declining to a long-term level of 4.9 mtpa,
- grain volumes at 0.9 mtpa, and
- mineral sands increasing to peak at 2.7 mtpa in FY29

These three factors contribute to an increase in volumes in FY19 to 9.0 mtpa and 9.4 mtpa in FY20 before a reduction and stabilisation at around 8.6 mtpa until 2030 and then at 8.1 mtpa out to the end of the forecast period, with the large increase in mineral sands offsetting the decrease in forestry products.

On a long-term basis, the 1.0 mtpa increase in annual volumes compared to FY18 levels is based on:

- the maturing and decline of the forestry products trade by 1.0 mtpa (5.9 mtpa to 4.9 mtpa);
- as a conservative measure, the closure of the Smelter (1.0 mtpa to nil);
- increased grain volumes of 0.5 mtpa (0.4 mtpa to 0.9 mtpa);
- the resumption of mineral sands exports (nil to 2.7 mtpa); and
- no new trades or industries emerging in the POPL catchment area.

The high case outlook indicates that congestion issues at POPL will be very high over the next two years should it eventuate, with volumes 18% over FY18 levels, and then reduce to a long-term level of approximately 12% over FY18 volumes. It will not be possible within this timeframe to implement any significant new items of infrastructure to manage these increases, so the Port will need to find operational efficiencies to manage the potential congestions, particularly in respect to woodchip exports.

Whilst this high case may seem alarming, the actual result for the 5 months to November 2018 of an 8% decrease in volumes compared to November 2017 indicates that these significantly higher volumes are unlikely at this stage.

One significant variation to the high case scenario is the potential continuation of Smelter operations beyond the current 4-year Federal and State support arrangements. While POPL has taken a conservative approach in respect to Smelter volumes and has excluded any Smelter activity beyond the 4-year support period, it is possible that the Governments involved will elect to continue these arrangements and extend the support for a further period. If this was to occur, and all the proposed mineral sands projects proceeded, the Port would need to consider constructing an additional berth, most likely Berth No. 7. This raises a significant planning issue for the Port as the availability of the Smelter Berth will be a critical factor to the Port's berth capacity planning if all of the potential mineral sands projects proceed.

Low case outlook

The low case scenario indicates that the forestry products have peaked and will now decrease to a long-term average of 2.9 mtpa, and that there will be no grain or minimal mineral sands, leading to a total long-term average of approximately 3.3 mtpa, or about 43% of FY18 volumes.

This outlook is theoretically possible, but POPL's view is that it is overly pessimistic.

2.3 Specific strategic ramifications arising from the long-term trade outlook

Forestry products

The forestry products trade is the Port's most important commodity, with over 5.6 million tonnes exported through the Port in FY18, representing 74% of total Port volumes. This trade is sourced from the nearby Green Triangle region of western Victoria and eastern South Australia and is transported by road from forest to the Port as either wood chips or logs. The majority of the product is exported as bulk hardwood chips (57% in FY18), with the balance comprising bulk softwood chips (11% in FY18) and hardwood and softwood logs (32% in FY18)

In 2017 POPL carried out a long-term analysis of the forestry products industry in the Green Triangle region, in consultation with forestry companies, logging communities, individual farmers and local and international consultants.

The key message from the international analysis was that the hardwood chips and logs exported from the Green Triangle region were highly prized by end users for the physical and chemical properties of the specific timber variety grown in the region (*E.globulus*). The consultants found that all things being equal, the consumers would take as much of this product as could be supplied. This advice showed that it was the levels of supply that will determine forestry product exports and not any element of demand.

The local study showed that in the heady days of the Managed Investment Scheme ("MIS") investment plantings, some initial plantation areas were sub-optimal from an economic perspective. Woodchips in particular are high volume, low margin commodities and are sensitive to transportation costs, so some of the original plantations will not be replanted due to either poor productivity or distance from Port. This finetuning of the plantation portfolios has led to an increase in export volumes over the last few years, as the uneconomic plantations were cleared and not replanted. The forecasts at base, high and low cases are based on various replanting ratios after the first and subsequent harvests.

POPL's long-term forecasts indicate that there will be a gradual reduction of between one to two million tonnes of forestry products per annum exported via the Port over the next 10 years, with the reduction occurring gradually from either FY18 or FY20 onwards depending on the high or base case assumptions. This trade is complex and difficult to accurately forecast, as harvesting and replanting rates are a function of current and future land use economics for both timber and its alternate land uses. These alternate land uses are dependent on a range of different factors that are constantly changing. The consensus from the Port's customers and advisors is that overall forestry volumes will decrease during this period as a result of sub-optimal plantations from the MIS days not being replanted, with maybe 60% of the reduction being attributable to hardwood chips and the balance mainly in logs. This trade is also sensitive to prevailing foreign exchange rates.

The failure to re-establish the Mt Gambier-Heywood railway line has meant that 100% of all forestry products are transported by road to the Port. This outcome represents a failure to provide a solution to move between 5 mtpa and 7 mtpa of bulk commodities off the roads. This has negatively impacted the costs to the exporter, the state of the road network and amenity within the region.

A potential new wood pellet export business, Altus Renewables Limited ("Altus") is included in the overall forestry forecast in the high case only. Altus has signed a memorandum of understanding with Mitsui and Co[2] ("Mitsui") to conduct a feasibility study for the construction of a greenfield 500,000 tonne per annum wood pellet production facility in the Green Triangle region. Mitsui already plays a significant part in the Green Triangle forestry industry and has knowledge of the local environment and access to the timber feedstock necessary for such a venture to proceed. This potential new business to Victoria and the region will be a means to add additional value and jobs to an already significant industry. Any Port infrastructure requirements that may arise for this new business, should it successfully proceed to commercialisation, will be determined based on the economics of that trade at that time.

[2] Altus Renewables Limited press release 18 October 2018

Grain

Grain volumes are highly dependent on weather conditions and thus are volatile and unpredictable, with the last 10 years ranging between nil and one million tonnes in any one year.

A key concern to the Port is the fair and equitable access to the grain logistics system, so that the farmers of western Victoria can benefit from equal competition between the bulk grain exporting ports of Portland and Geelong.

Currently there is a rail track rating differential between the main line to Geelong at 23 tonnes axle load ("TAL"), the wider western Victorian rail network rating at 21 TAL and the Maroona-Portland, Rainbow, Hopetoun and Murrayville lines at 19 TAL.

The exclusion of the Maroona-Portland line from the recent Murray Basin Rail Project ("MBRP") means that the 19 TAL rated rail line to Portland is effectively stranded from the wider rail network because of the 15%[3] transport cost differential between 19 TAL and 23 TAL rated lines. This cost and capability differential has created a significant structural imbalance in competition between the two ports.

The Port, together with the Glenelg Shire Council and other interested parties have made a request to the Federal and Victorian Governments for appropriate funding to upgrade the Maroona-Portland line to 23 TAL, in order to rebalance the competitive landscape and give western Victorian farmers the benefit of equal competition between the ports. This request is currently being considered.

Mineral sands

The long-term outlook for mineral sands in western Victoria is currently very favourable due to a forecast world-wide shortfall in mineral sands production over the next 10 years.

As part of POPL's 25-year forecasts, POPL's mineral sands advisers carried out a world-wide study of the expected production lives of existing and planned mineral sands mines. The advisers determined that there is a large gap between future demand for mineral sands products and the capacity of existing and planned mines to supply that demand, and that this demand would need to be satisfied through new deposits, or via known deposits that were currently difficult or uneconomic to access. The consultants concluded that as a result of this expected shortfall, it was likely that one or more of the proposed Donald/Horsham region and Balranald region deposits would proceed to production.

The advisers noted that the deposits in both the Donald/Horsham region and Balranald region have extraction and processing issues, with the Balranald region resource (a conventional deposit) being very deep, and the Donald/Horsham region resources being WIM deposits[4], which comprise very fine grains which create extraction and processing issues. WIM deposits also contain a small level (around 2%) of radioactive monazite impurities, which on one hand create handling difficulties, but on the other hand they contain rare earth elements so are highly prized. The conclusion by the advisers was that the expected increases in prices in

[3] As advised to POPL by Department of Economic Development, Jobs, Transport and Resources (DEDJTR)
[4] WIM appears to be an acronym for Wimmera Industrial Minerals, an early prospector in the Donald/Horsham region

mineral sands products arising from the supply deficit will move previously uneconomic or difficult deposits, such as those in the Port catchment area, into economic contention.

Since that report, several of these predicted changes have been realised:

- the price of the mineral sands outputs (titanium and zircon products) has increased significantly in the last year[5];
- world-wide mineral sands inventories have decreased;
- customer demand is strong;
- Iluka Resources Limited ("Iluka") appears to have resolved the extraction issues relating to its Balranald deposits; and
- traditionally a conventional miner, Iluka has recently announced that it will commence a feasibility study on the extraction and processing of WIM deposits[6]. POPL's advisers have noted that Iluka is likely to be successful in resolving these issues.

The key element to the Donald/Horsham region mineral sands deposits is that they are extremely large, with one miner, Astron Limited, describing its resource at Donald to be "among the largest mineral sands deposits in the world"[7]. To be conservative, POPL has included Iluka's conventional Balranald region output plus only one of the WIM deposits in its base case at relatively low volumes, but the high case assumes that all of the Donald/Horsham region mines will develop to production at approximately 2.5 mtpa at their peak in FY29. Unlike the conventional deposits, which may have a mine life of maybe 5-10 years, the vast size of the Donald/Horsham region WIM deposits means that long-term sustainable volumes at approximately 2 mtpa are expected beyond the 25-year forecast period. Furthermore, these deposits tend to be relatively close to the surface, so the capital costs to open a mine are relatively low, making the projects more attractive if the other issues are resolved.

The current POPL high case forecast did not anticipate the possibility of Iluka entering the WIM market, as Iluka was considered a conventional miner when the forecasts were developed. If Iluka's WIM feasibility project is successful, and it moves to develop some of its WIM resources in the Donald/Horsham region, then the eventual volumes may be much greater.

POPL has been in ongoing consultation with the emerging Donald/Horsham region WIM miners regarding their export logistical requirements. All have expressed strong interest in using the rail system to transport their mineral sands from the railheads at Murtoa or Horsham to the Port for export. The upgrade to the Maroona-Portland line to 23 TAL will be a critical part of the export logistics chain for these producers.

In addition to the upgrade to the Maroona-Portland line, the proposed common-user rail receival facility on the western boundary of the Port will be vital to the efficient receival of the mineral sands (and woodchips) at the Port. This was identified in the August 2009 PLUS and will be a critical element of the rail logistics system[8]. The current rail receival facility at the Port is owned by GrainCorp and is not suitable for either mineral sands or woodchips due to high risk of contamination to GrainCorp's grain exporting infrastructure.

[5] Iluka Resources Limited, Quarterly Production Report, September 2018
[6] Iluka Resources Limited, Quarterly Production Report, September 2018
[7] Aston Limited web-site, Donald Mineral Sands page
[8] Port of Portland – Port Land Use Strategy – August 2009, page 26.

There is a real possibility that the Maroona-Portland line track rating differential will impact POPL's capacity to effectively compete with Geelong for the potential new mineral sands deposits in the Donald/Horsham region. Whilst Iluka is highly likely to use POPL as the export port for its new mine in the Balranald region due to its pre-existing infrastructure at Portland, the new miners in the Donald/Horsham region have no established links. It will therefore be a simple cost/benefit/risk analysis of lower rail costs to Geelong against Portland's mineral sands handling expertise and the lower risk of congestion at Portland due to the expected reduction in forestry and Smelter-related volumes. If the Portland rail line is maintained at 19 TAL, this could jeopardise competition for this business as the cost of rail transport to Portland will not be attractive to the customer.

The Port will consider the possibility of new infrastructure requirements to support the emerging Donald/Horsham region mineral sands trade when those mines develop closer to production and an appropriate business case is able to be made.

Aluminium

The Portland Aluminium smelter trade is extremely important to the Port as it provides volumes of approximately 1.0 mtpa, comprising approximately 74% in bulk aluminium feedstock imports (alumina, coke and aluminium fluoride) via the Smelter Berth, with the 26% balance comprising other raw material imports and ingot exports. The Smelter Berth is a 100% dedicated facility as part of POPL's agreement with Alcoa Portland Aluminium Pty Ltd. ("APA"). As shown in Table 4 below, the Smelter Berth has experienced consistent long-term low utilisation rates compared to other berths, reflecting the relatively low Smelter volumes over this berth compared to other berths. With the rise of the other trades leading to various levels of berth congestion on other berths, POPL and APA have come to an informal arrangement whereby various break-bulk trades, such as logs, livestock and fertilizer, are now able to be loaded over the Smelter Berth. This eases congestion on Berth Nos. 1, 5 and 6.

As noted in Section 2, POPL has taken a conservative approach in respect to future Smelter volumes and has not included any Smelter trade in any of the forecast scenarios beyond the expiry of the current 4-year State and Federal Government support arrangements. The Port has considered the possibility that the Governments supporting Portland Aluminium will continue their support beyond the current 4-year timeframe. This is a possibility, and maybe the Smelter will get an extension, but to be conservative POPL has assumed for these forecasts that the support will not be extended.

From a strategic point of view, the closure of the Smelter would allow the Smelter Berth to become available for all other trades, which would further assist congestion management. To put this into context, in FY17 Berth No. 6 carried 2.8 million tonnes whereas the Smelter Berth only carried 0.6 million tonnes, so there is considerable operational upside for the Port if the Smelter Berth becomes available. Conversely, if the Smelter trade remains, and the Donald/Horsham region mineral sands production issues are resolved, and the mines go into production, then the Port will need to consider the construction of the new Berth No. 7 to handle the increased trade. The decision by the Governments to continue the Smelter support will therefore have a significant impact on the future infrastructure planning for the Port.

Tower Components

In the second half of 2018 through to 2020 a significant number of ships, exceeding 90, will use the Port to deliver wind tower components. This is not seen as a sustainable trade but demonstrates the contribution of the Port to new renewable energy infrastructure in western Victoria.

Berth availability

POPL's historical berth utilisation statistics show that the Port has successfully managed the significant increases in volumes forecast in the August 2009 PLUS[9], as illustrated in **Table 4**:

Table 4: Historical berth utilisation

Berth	FY14	FY15	FY16	FY17	FY18	*Average*
Berth No 1	64%	54%	66%	64%	67%	63%
Berth No 2	13%	9%	6%	6%	6%	*8%*
Berth No 5	70%	66%	78%	80%	74%	*74%*
Berth No 6	81%	72%	80%	80%	80%	*79%*
Smelter Berth	34%	39%	36%	35%	40%	*37%*
SL Patterson Berth	0%	5%	13%	13%	16%	9%
Total volume (ktpa)	**6,224**	**6,462**	**6,925**	**7,579**	**7,633**	**6,965**

The impact of the large increases in Port volumes since FY08 have been largely mitigated through the implementation of better port management processes to free up valuable berth time. Examples of better processes include using the underutilised SL Patterson Berth (previously a tug berth) as a log fumigation station, allowing log vessels to be loaded at one of the main berths and then moved away to be fumigated in a separate part of the Port. Other initiatives include establishing an informal arrangement with APA for the occasional use of the otherwise dedicated Smelter Berth.

POPL has modelled its future berth utilisation levels on the basis of its 25-year trade forecasts and has found that the forecast future base-case volumes do not *prima facie* justify the construction of a new Berth No. 7 within the next 5 years. Essentially, the easing of forestry volumes and the loss of the Smelter volumes, should they both occur, will provide sufficient berth capability for any new/replacement volumes.

However, there are several important factors that could affect this position, such as whether:

- a significant new trade was established in the POPL catchment region;
- all the mineral sands projects proceeded, for a combined 2.7 + mtpa;
- the forecast reductions in the forestry products trade did not eventuate;
- the grain trade was to significantly increase; and
- the Governments elected to extend their support for the Smelter for a further period.

A combination of these factors may provide the circumstances for a favourable business case to be developed for the construction of a new Berth No. 7 adjacent to the existing Berth No. 6.

[9] Port of Portland – Port Land Use Strategy – August 2009, page 43.

Land availability and issues

The main land availability issues and opportunities can be summarised as follows:

- The Port's location in the middle of the Portland township has meant that it will always have land availability issues. The Port is significantly constrained on all boundaries, with residential properties located within 150 metres from the Port in some areas.
- There are a number of historical agreements that provide some Port tenants with very long leases on premium port-side land in circumstances where the volumes through the Port are relatively low, such as for grain and fertiliser. In an environment where access to valuable port-side land is used as an incentive to attract efficient high-volume trade, these arrangements effectively block the Port's capacity to offer port-side land to potential new trades and customers.
- The forecast reduction in log trade, if it eventuates, makes it feasible that some of the leases at Canal Court will be consolidated amongst the forestry tenants when they expire over the next few years. This will potentially open up to 4.7 hectares of open storage land for potential use by other trades.
- The expected transfer of some of the log storage from Canal Court to the North West Corner of the Port will place increased pressure on infrastructure at the North West Corner. POPL is currently working with the relevant tenants on plans to potentially upgrade this site and to improve facilities such as lighting, water management and dust suppression.
- The potential closure of the Smelter gives rise to a number of opportunities and challenges for the Port, as the Smelter site is physically linked to the Port via the bulk overland conveyor system from the Smelter Berth directly to the Smelter's storage facilities. There are opportunities for the Port to significantly extend its land and infrastructure capabilities through the acquisition of the conveyor infrastructure, the land that the conveyor occupies and some portions of the Smelter property, particularly those areas close to the conveyor head. The challenges for the Port will be to manage the ultimate use of any Smelter land it does not acquire to ensure firstly that it is not able to be used for any development that is inconsistent with Port's existing or future operations, and secondly that it is included in the Port Planning Overlay.
- The Marine Precinct is a POPL-owned buffer area located on the western boundary of the Port land title, separated from the main Port area by the canal that links Fawthrop Lagoon to the harbour waters. With the exception of the tug and pilot boat berths located at the month of the canal, this land is not and has never been used for Port operations, but instead is leased to two tenants engaged in marine-related private businesses: a marine chandler and boat repair business and a fish market. POPL is currently reviewing its options in respect to its options for this land.
- The Port currently leases an area of 2.5 hectares from VicTrack, the Victorian Government's rail track management authority, representing the rail track area, rail lines and associated infrastructure to the west of the Cape Nelson Road bridge. This land, which is currently used only as a conduit for rail transport to the Port, is the intended location for the proposed common-user rail receival facility.
- The Port has considered the feasibility of extending its rail link to provide an additional spur along RB Anderson Road to service the mineral sands and wood chip storage facilities. This project would only be feasible if all of the other rail enhancement projects were to be undertaken.

- The Port quarry is located at Point Danger, approximately 6 kilometres south of the Port. This site, which has 2 hectares of hardstand, is used for open storage purposes, such as for logs and wind farm components. The distance from Port makes this site only feasible for some Port customers, but it is potentially available for development should appropriate uses arise.
- The question of land availability at POPL is a problem that has occasionally been solved in the past by additional land reclamation. Apart from the potential to build a new Berth No. 7 adjacent to Berth No. 6, and possibly extend both berths further out into the harbour, there appears to be little capability to reclaim additional land within the harbour region. Studies have been carried out by POPL in the past for potential land reclamation projects to the east/south east of Incitec Pivot, but the cost would be prohibitive, and the land reclaimed would be small and relatively distant to the berths, so this option is considered to have a low likelihood.

Port planning issues

Many ports around Victoria and Australia are finding that their location within, and surrounded by, cities and local towns means there is pressure on their operations due to noise, dust, traffic and other amenity issues, as well as their expansion. This is an issue that is shared by Port of Portland.

The Environmental Significance Overlay 5 (**ESO5**) under the Glenelg Planning Scheme assists from a planning perspective in managing potential conflicts between operations at the Port and the surrounding land in Portland. The overlay provides that the land within this ESO5 overlay area should not be developed for any purpose that might compromise the long-term protection and expansion of port operations, infrastructure and associated storage facilities

The Overlay aims to minimise the potential for future land use conflicts between the port and port environs, and ensure that any use and intensity of development in the overlay area does not constrain the ongoing operation and development of the commercial port.

The Port is of the view however, that the present scope of ESO5 does not adequately cover all of the off-port land areas that it should in order to adequately protect the amenity of surrounding residents and operations from amenity issues arising from both current and projected port operations. It does not come to this view lightly, but rather using existing and projected sound contour profiles it is possible to identify those areas which may be impacted by amenity issues unless the reverse amenity provisions in the ESO5 Overlay are expanded to cover those areas.

In pursuit of this objective, POPL has recently applied to the Council for an extension of the ESO5 Overlay area to cover the land along the Henty Highway west of the Cape Nelson Road bridge, which is the expected location of the proposed common-user rail receival facility. Other areas should also be considered on an ongoing basis so that ESO5 responds to the Port's dynamic growth.

However, ESO5 provides the most important solution to amenity issues. From a planning perspective POPL will continue to work with the Council and the community to ensure that land use conflicts between the Port and other uses can be avoided through sensible and forward-thinking planning strategies.

Planning controls and zoning of the Port is further discussed at section 8 of this report.

2.4 Port of Portland Strategies arising from the above

Guiding principles

The focus for the Port will be to consolidate its position as the import and export gateway for western Victoria and the Green Triangle region, and to ensure that all new export trades to the region are exported via Portland.

The Port will consider investment in new infrastructure as new trade opportunities emerge and a compelling business case is able to be proven, otherwise it will concentrate on efficiency gains and improvements to enhance the economics of the port and its customers.

Strategic imperatives

The Port's strategic imperatives include:

- Port competitiveness restored through the upgrade of the Maroona-Portland line to 23 TAL;
- calling for rail linkages and receival facilities from the catchment areas to the Port to be protected and improved to make rail competitive to road;
- seeking for regional road infrastructure to be upgraded to improve roads and raise bridges where necessary;
- ensuring the potential new mineral sands and wood pellet volumes go to Portland;
- acquiring or otherwise exercising influence regarding the future use of the Smelter land and the conveyor corridor to port, and protect this land from inappropriate development;
- being aware of and responsive to any potential new trades or businesses looking to commence business in the Portland catchment area;
- working on providing efficiency gains for all port services; and
- protecting current and future Port operations through appropriate planning overlay and control.

2.5 Actions

Linkages – road and rail

Recommendation	Action required
Urgently upgrade the Maroona-Portland line to 23 TAL*.	Federal and State Transport Ministers to consider a submission by POPL, the Glenelg Shire Council and others to upgrade the line.
Reinstate the Mt. Gambier-Heywood line at 23 TAL*.	Victorian and South Australian State Governments to review the decision not to upgrade this line, with Externalities taken into consideration as part of this review.
Build the common user rail receival facility west of the Cape Nelson Bridge*.	Federal and State Transport Ministers to consider this proposal as part of the overall upgrade to the western Victorian rail network.
Upgrade the Hopetoun-Murtoa line to 23 TAL* (currently 19 TAL and outside the MBRP).	Federal and State Transport Ministers to consider this proposal as part of the overall upgrade to the western Victorian rail network.
Raise the height of the Ring Road bridge at Bridgewater Road to allow wind farm components to pass.	The Victorian Department of Transport is currently considering a proposal to raise the bridge height.

Recommendation	Action required
Upgrade all road routes into Portland to enable B-double traffic at 100 km/h rating.	Federal and State Transport Ministers to allocate additional funding to appropriately maintain all western Victorian road transport routes.
Consider the construction of an additional rail spur and bulk receival facility along the RB Anderson Road to provide direct rail service to the existing mineral sands, wood chip and log storage facilities.	Federal and State Transport Ministers to consider this proposal as part of the overall upgrade to the western Victorian rail network. This will be final step in building an efficient "forest/mine to berth" transport link.

* Carried forward proposals from the August 2009 PLUS[10].

Land, harbour and berths

Recommendation	Action required
Consider the construction of Berth No. 7.	POPL will monitor key indicators as identified in this PDS and will construct a new berth if a sound business case is able to be made.
Consider acquiring the Smelter conveyor and specific parts of the Smelter land.	Should the Smelter land become available, POPL will work with APA and relevant Governments to enable additional land to be made available for Port purposes.
Upgrade the North West Corner.	POPL is currently working with North West Corner tenants to determine the level of infrastructure upgrades required, and how these upgrades can be executed.
Finalise the future of Marine Precinct.	POPL is currently reviewing the future of the Marine Precinct.
Better use of the Quarry site.	Any future uses of the Quarry site will be driven by customer requirements. POPL will consider all proposals for alternate uses on this site.
Consider relocating the tug berth to Fishermen's Wharf.	POPL will consider this proposal as part of the review of the Marine Precinct.

Infrastructure

Recommendation	Action required
Replace shiploader on KSA1 (subject to new trades and business case).	POPL is currently working with GrainCorp to determine means by which the KSA1 shiploader can be replaced.
Construct new mineral sands facility at either Canal Court or the Bunker site.	POPL will consider the construction of new mineral sands storage and handling facilities if the proposed mines are developed and a sound business case is able to be made.
Construct new wood pellet facility on Canal Court or the Bunker site.	POPL will consider the construction of new wood pellet storage and handling facilities if the proposed project is developed and a sound business case is able to be made.

[10] Port of Portland – Port Land Use Strategy, August 2009, pages 59-64.

Planning

Recommendation	Action required
Ensure that adequate planning controls are implemented over the Smelter site to avoid any development that is averse to the Port's current or potential future operations.	POPL will work with the Glenelg Shire Council and Victorian State Government to ensure that planning protection for the Smelter site is consistent with the Port planning scheme.
Amendments to increase the scope of Port Environmental Significance Overlay area (ESO5).	POPL will work with Glenelg Shire Council to ensure that the scope of ESO5 adequately covers all areas impacted by Port activities.
Ensure that new residential or industrial developments do not impact Port operations.	POPL will work with Glenelg Shire Council to ensure that no new residential or industrial developments have the capacity to impact Port operations.

We note that many of the above recommended actions, such as the upgrades to the rail and road networks and improvements to bridge heights, relate to the wider transport infrastructure framework, and as such fall under the responsibility of relevant State and Federal Government authorities.

The Port's forecasts show that the Green Triangle forestry products trade is a thriving and sustainable long-term industry, and that the new Donald/Horsham mineral sands deposits have a good chance of progressing to operational status. The Port will carry out its role in facilitating export capability within the region and calls on Government to assist in resolving the inadequacies and inefficiencies in the transport network to the benefit of all businesses and residents of western Victoria.

3. Strategic Context

3.1 Previous Port Development Strategy

The current PDS for the Port of Portland is a document titled "Port of Portland – Port Land Use Strategy, August 2009" (the "August 2009 PLUS"). This document was prepared under the *Victorian Port's Strategic Framework*, November 2004 ("VPSF"), as modified by *The Victorian Transport Plan*, December 2008 and *Freight Futures*, December 2008.

As part of preparation of this new PDS, the August 2009 PLUS was reviewed in order to consider its adequacy and inform the task of preparing the new PDS. This review found that, whilst the 5–10 year forecasts contained in the August 2009 PLUS were reasonably accurate and the Port infrastructure planning was acceptable, there had been significant shortcomings in the outcomes in respect to freight network links to the Port. These were particularly so in relation to rail links.

Specifically, the following shortcomings have been identified:

- the failure of Maroona-Portland rail line to be upgraded to 23 TAL rating as proposed;
- the lack of action regarding the development of a new common-use rail receival facility at the western entrance to the Port; and
- the lack of action regarding the reinstatement of the Heywood-Mt Gambier rail line.

These issues are discussed further in Section 7.

3.2 Relevant Legislation

3.2.1 Planning and Environment Act (Vic) 1987

The *Planning and Environment Act* (Vic)1987 sets out the legislative and administrative framework to manage land use and development in Victoria.

The Port is located within the Shire of Glenelg governed by the Glenelg Planning Scheme. The Glenelg Planning Scheme comprises State and Local policies and land use planning controls (zone and overlay controls) and sets out an approval process for the use and development of land including the Port and its surrounding areas.

3.2.2 Ports Management Act 1995 (Vic)

This Act outlines the establishment, management and operation of all trading and commercial ports in Victoria, including the Port. The changes to the Act do not impact the requirements of a PDS or Port Management Plans, which remain in sections 91A-N.

However, it does amend the definitions of relevant ports and provisions surrounding abandoned goods or chattels within ports and the powers ports will have to deal with abandoned items. These are not extensive changes and will be unlikely to change the day to day management of the Port.

3.2.3 Marine and Coastal Act 2018 (Vic)

This *Marine and Coastal Act* (Vic) 2018, introduced on 1 August 2018, repeals and partially reintroduces the previous *Coastal Management Act* (Vic) 1995. It provides the administrative framework for management of the marine and coastal environment of Victoria.

The Act applies to coastal Crown land including the coastal waters of Victoria and the sea-bed.

While no direct obligations are conferred from this Act to port operators, the Act introduces new objectives to provide a simpler, more integrated and coordinated approach to planning and managing the marine and coastal environment:

- integrated coastal zone management;
- ecosystem-based management;
- ecologically sustainable development;
- evidence-based decision-making;
- precautionary principle;
- proportionate and risk-based principle; and
- adaptive management.

These objectives are relevant considerations for the Port's own environmental management plans due to its costal location.

3.3 Relevant policies

3.3.1 'Delivering the Goods' Freight Policy

In July 2018, the Victorian Government released the new State Freight Plan 'Delivering the Goods' (**Policy**). This document sets out the new visions for the transport system in Victoria, particularly focusing on Victoria's future freight volumes in light of Victoria's expected population increase from 360 million tonnes (2014) to 900 million tonnes (2051).

The Policy considers both short-term projects designed to take place within the next 5 years, as well as the long-term direction of Victorian freight and how it will deliver government policy, planning programs and resources to Victoria's freight and supply chain systems.

The Policy discusses the Murray Basin Rail Project (**MBRP**), which is the standardisation and expansion of the rail entire network to improve efficiency. It recognises the importance of the Port, stating that significant volumes of State product are exported via the ports of Portland, Geelong and Melbourne before being transported through the rail network.

The overall aims of the Delivering the Goods are to ensure the freight network must:

- Be fit for purpose;
- facilitate efficient movement of domestic and international freight.
- avoid inflation of supply chain costs because of inefficiency or capacity constraints.

Each of these aims would have direct improvement to the Port, particularly given the current strain on supply chains arising from the limited rail network connections.

The Port notes that, despite the Policy's good intentions, it falls short of providing specific detail of how the network is envisioned to be upgraded. In this way, it remains largely aspirational in nature. It also fails to mention that the rail to Portland was excluded as part of the MBRP.

Further, the Policy does not address plans to upgrade the Maroona-Portland line to 23 TAL, providing no comment on the issues with the Portland line at 19 TAL.

3.3.2 Victorian Coastal Strategy 2017

The August 2009 PLUS report reflected upon the importance of the 2009 Victorian Coastal Strategy. This strategy has since been replaced by the Victorian Coastal Strategy 2017 (**VCS2017**).

VCS2017 raises that an ongoing action requirement for Port Precincts is to monitor risk mitigation strategies adopted by the local and commercial ports for port infrastructure identified as 'vulnerable' to extreme climate events. Where extreme climate events are identified as a risk for a port, plans and appropriate controls and actions will need to be put in place to reflect this classification.

In terms of implementing the recommendations of VSC2017, it is suggested that ports work through the regime set out under *Ports Management Act* (Vic) 1995, under which ports (commercial and local) are required to have Safety and Environmental Management Plans.

3.3.3 Advice on Securing Victoria's Ports Capacity

In May 2016, the Special Minister of State requested Infrastructure Victoria provide an advice on options to secure Victoria's future port's capacity. This advice was released in May 2017.

While the advice centres on the location of a potential new large container port in Victoria (Bay West was the preferred option), the document is still relevant to the Port of Portland for two reasons:

- firstly, the introduction of a large container port may see an initial diversion of ships from Portland to the new Port;
- secondly, it reviews the current Victorian ports and their limitation, providing that Port of Portland is constrained by surrounding residential land uses, is already at full occupation and is over 350km from Melbourne. However, it does note the close proximity of the Port of Portland to agricultural and resources exports in north-western Victoria, signalling the potential to increase the Port's role as a bulk and break-bulk port (as opposed to a container port).

3.3.4 Glenelg Shire Council 'Shaping our Future' Strategic Plan

The Shaping our Future plan, developed by Glenelg Shire Council in 2017, is a 4-year strategic plan for the growth of Glenelg designed to improve the liveability of the towns. A key project the Council has committed to is the development of the Portland Foreshore Masterplan. The degree of impact this will have to the Port's operations is yet to be seen.

3.3.5 Coastal Action Plans

Glenelg Shire Coastal Action Plan (2004)

The *Glenelg Shire Coastal Action Plan* (January 2004) was developed by the Western Coastal Board and the Glenelg Shire Council. The aim of this document is to *guide the future use, development and management of the coastal and marine areas of the Shire*. A range of issues were identified and management actions recommended.

Subject to the state elections of 2018, a *Glenelg Shire Coastal Action Plan (2018)* is anticipated to be ratified by the Minister and implemented in February to March of 2019.

After ratification, further amendments in future renditions in accordance with the *Coastal and Marine Act (2018)* will need review.

The Regional Coastal Plan for the Western Coastal Region (2015)

The Western Regional Coastal Plan (2015-2020), which supersedes its predecessor, the *South West Regional Coastal Action Plan (2002),* was developed by the Western Coastal Board and endorsed by the minister in September 2015. Its plan identifies the regional, environmental and local strategies to guide the management of the western coastal region.

3.4 Stakeholder engagement

3.4.1 Introduction to the stakeholder engagement process

There are two significant factors informing the nature of the stakeholder engagement and consultation process undertaken by POPL:

- firstly, the context of the Port location as an integral part of a small rural community; and
- secondly, that the underlying operations of the Port are very stable and are unlikely to change significantly across the next five years.

The Port as an integral part of a small rural community

The township of Portland has an approximate population of 10,000 people. It is a small, relatively isolated, close-knit, rural community. Workers at the Port, including Port management, live side-by-side with non-Port residents, including members and staff of the Shire Council and the staff of Port tenants and service providers. The regular, everyday interaction between these groups cannot be overstated, and there are many common social interests.

Thus, whilst regular and formal meetings are held between the Port and its stakeholders on a range of matters, there is naturally a high level of informal consultation and conversation that takes place. This closeness of community is very different to the other Victorian ports, which are located in much larger cities, with a greater social disconnect and physical distance between the various stakeholders. The Port considers this informal dialogue equally important to the formal quarterly meetings.

The Port as a specialised but stable rural infrastructure hub

Port of Portland is a very stable enterprise, servicing a small number of local and regional industries, such as forestry products, mineral sands, grain, livestock, aluminium, fertiliser and wind farms. Over the last ten years there has been a significant increase in forestry and mineral sands exports through the Port. However, these volumes were accurately predicted in 2008 as they were based on tangible factors, such as forest planting and logging rates and smelter and mine outputs. A new 25-year forecast has provided the Port with two key findings.

- First, that base case volumes through the Port from forestry, smelter and mineral sands operations will potentially reduce by approximately 35% over the next few years.

- Secondly, that whilst there is potential for new mineral sands mines and wood pellet manufacturing to come on stream, there were otherwise no potential new sources of trade identified within the region over the next five years that would give rise to any significant change to the Port's operations or infrastructure requirements.

Under this scenario, in the absence of any significant new trades within the Port catchment area, the focus for the Port is that all strategic development will be directed at improving port efficiencies for the Port and its customers. The implication for this status quo outlook is that the nature of consultation with stakeholders focusses on incrementally making the Port more efficient and more competitive.

3.4.2 Consultations with tenants

POPL maintains strong relationships with all of its tenants and is engaged in open and regular communication and consultation with them to the extent that Port strategies and operations directly or indirectly impact on their respective tenancies. Tenant consultation meetings are usually held on a quarterly basis.

Over the last two years POPL has undertaken extensive additional consultation with all major existing tenants and potential new tenants and exporters in respect to their trade expectations over the next 25 years. Following the sharp increase in annual volumes at the Port, POPL carried out an extensive study of the drivers of its major trades in 2017 as an input to the current Port Masterplan. POPL's tenants were an integral part of the study, as the exercise focussed on their intentions and their future requirements.

3.4.3 Consultations with other port-related businesses

POPL consults regularly with other port-related businesses, such as the stevedoring and freight companies, in respect to future Port plans impacting on their operations. POPL does not maintain direct economic relationships with most of these businesses as they are service providers to POPL's tenants. The stevedoring and freight companies are invited to the Port User Group meetings which are normally held on a quarterly basis.

3.4.4 Consultations with the Portland community

POPL's physical, economic and social position within the Portland community has meant that since the very early days of settlement, ongoing community consultation and communication has been a necessary and continuous element in the management of the Port. This communication is both formal and informal.

POPL has for many years held formal community information and discussion meetings each quarter, at which all aspects of Port operations and future plans are discussed. Most of the consultation is in respect to day to day management issues, such as dust and noise, but POPL also uses this forum to inform the community of new Port developments and strategies.

In 2017/18 the replacement of the iconic Corkscrew installation on the main breakwater (circa 1964) was discussed and planned in conjunction with community consultation. In late 2018 a new steel Corkscrew structure was installed with over 900 visitations from the community on opening day.

3.4.5 Consultations with Glenelg Shire Council

POPL maintains close relations with the Glenelg Shire Council ("Council") and involves the Council at all relevant stages of any appropriate strategy or project. These specific consultations are generally on an ad hoc basis relevant to the particular project, and thus do not require the formal communication and consultation structures necessary for the tenants and the community.

The Port and Council CEO's are members of the Committee for Portland, which meets on a regular basis (normally every 2 months) to advance civic and commercial life in the township.

3.4.6 Consultations with State agencies

POPL engages and consults with a wide range of State and Federal agencies and personnel in respect to operational, compliance, transport and industry matters.

The transport network issues raised in this PDS would see an increased level of consultation with State Agencies. The Port welcomes the opportunity to work closer with the State Government to increase the efficiency of the Port regarding various projects.

3.5 Development drivers and considerations

The Port is an enabling enterprise, meaning that the key drivers to Port activity levels are in the hands of the current and future Port customers. The Port caters for bulk and break-bulk commodity products sourced from its local catchment area, and it is the future production and export intentions of the existing and potential future customers that own and export these products that will drive future development plans for the Port.

For existing customers, the Port maintains close relationships and regular contact with key customer personnel so that Port Management are aware of any potential changes to tenant requirements and can work with the tenant to implement their new strategies or infrastructure requirements. This is evident in the recent successful expansion of the Portland Chip Terminal, and the ongoing discussions regarding the upgrade to the North West Corner.

For potential new customers, the Port is approached on a regular basis with requests for export solutions and is highly responsive to these new business propositions. The Port acknowledges that these potential new business ventures are generally large and complex, and that at planning stage the export logistics are often a relatively small part of the overall project development. Nonetheless, the Port expends considerable engineering and commercial resources in developing export infrastructure and handling solutions for these new projects, in the knowledge that they may take a long time to come to fruition. A past example of this long lead-time is the forestry industry, which took many years to develop, but is now a mainstay of Port operations. A potential future example is the developing WIM mineral sands industry in the Horsham/Donald region, where very significant volumes might be exported through the Port when the project issues are resolved, and the mines start to produce.

3.6 Role of the port in the wider economy

The Port plays a very significant role in the local and regional economies.

Local involvement

At a local level, the Port is a major employer in the township, with approximately 50 full time equivalent staff and approximately 400 people at work at the Port each day. This is a significant figure with respect to the Portland population figure of 10,000 people.

The Port actively supports visits by cruise ships to the town, in conjunction with the Glenelg Shire Council. While this initiative has resulted in irregular visits to date in summer months (1-3 visits), the Port continues to work with the Council to attract these visits which are valuable to the local economy.

The Port is a major supporter of all facets of Portland community life, providing a wide range of sponsorships and donations across educational, sporting and social endeavours.

The Port also plays an active role within the Portland business community. It is a member of the Committee for Portland and maintains a close cooperative relationship with the Glenelg Shire Council on a range of civic initiatives.

Regional Involvement

At a regional level, the Port is a key enabler for over 7.6 million tonnes of imports and exports each year, worth $2 billion per annum, to reach their respective markets. As efficiency and low-cost export logistics are vital to the businesses of these customers, the Port's capacity to serve the local region remains a key priority. This has a significant flow on effect to all the communities within the region, as much of that $2 billion per annum flows back to the Port's catchment area.

State Involvement

The Port's involvement beyond its regional boundaries into the wider State economy is limited. While the $2 billion in exports is vital to the Victorian and South Australian economies, the Port maintains its focus on assisting its customers within the region.

4. Projections of Trade

4.1 Trade catchment

The Port of Portland is a bulk commodity port servicing the agricultural, industrial, mining and forestry industries of western Victoria and eastern South Australia. The Port services the aluminium smelter at Portland, the Green Triangle forestry region of Victoria and South Australia, the western Victorian grain export industry, the western Victorian wind farm operations, the livestock (beef cattle) export industry and the Murray Basin mineral sands mining operations. The Port is a vital element within the logistics networks for all of these industries, enabling them to import or export their respective cargos in the most cost-effective manner. The Port contains the largest hardwood chip handling facility in the world, a specialised alumina bulk unloading facility, and it owns and operates a purpose-built mineral sands storage and ship-loading facility.

The majority of the trade volume exported through the Port are high volume, low value forestry commodities, wood chips and logs, where close proximity to port and efficient storage and loading facilities are key factors to profitable operations. Likewise, the other exporters, such as the mineral sands and grain exporters, rely on access to a port in close proximity to minimise their logistics costs and enhance competitiveness on world markets. These factors are the fundamental drivers in setting the natural trade catchment area for the Port.

It is very unlikely that the Port will expand into containerisation, as containers are the natural transport mode for items such as consumer goods, vehicles, machinery parts and manufactured or packaged foodstuffs. These goods are not currently produced in a consistent volume in the Portland region so there is no trade imperative for export container facilities at the Port. Furthermore, consumer markets for these goods do not exist to any material volume in the Portland region, so any such imports would need to be transported by road to the nearest major cities, being Adelaide, Melbourne or Geelong, all of which are serviced by established and efficient container terminals.

4.2 Port competition

The Port of Portland is located between Port Adelaide, 555km to the west, and Geelong Port, 288km to the east.

Port of Adelaide

The Port of Adelaide is not considered to be a competition port to Portland due to the distance from Adelaide to Portland's trade catchment area, and the high levels of sensitivity to logistics costs for most of that trade. For example, in FY15 Adelaide handled less than 100,000 tonnes of timber products, most of which were logs[11].

[11] Ports Australia web-site – Trade statistics 2014/15 – Timber exports

Geelong Port

Geelong Port is considered to be a competitor port to Portland due to its proximity to the Port of Portland's trade catchment area and the high quality, 23 tonne axle load ("TAL") rail line linking Geelong Port to the wider freight network.

This premium quality rail service is a significant factor in the grain export industry, as most of the western Victorian rail network has recently been upgraded to the 21 TAL rating, whereas the Maroona-Portland line is only rated at 19 TAL. This rating differential between the line to Portland and Geelong gives rise to a material reduction in port competitiveness, as there is a 15% cost differential[12] between a 19 TAL rated line and a 23 TAL rated line.

Geelong Port is also a competitor to Portland in the export of woodchips, with Geelong handling over 1.3 million tonnes of timber products in FY15[13].

There is potential for the track rating differential between the Maroona-Portland line and the Geelong line to significantly impact port competitiveness in the emerging mineral sands export trade. Whilst the mineral sands trade in Victoria is currently on pause, there are major developments under way in the region:

- Iluka is at feasibility stage in developing new deposits near Balranald;
- Iluka is also at feasibility stage in solving issues in the development of its WIM deposits; and
- a number of other mining companies are in the process of developing WIM deposits in the Donald/Horsham region.

[12] As advised to POPL by Department of Economic Development, Jobs, Transport and Resources (DEDJTR)
[13] Ports Australia web-site – Trade statistics 2014/15 – Timber exports

The track rating differential, and associated cost difference, will be a material factor in Portland's ability to compete effectively for this trade.

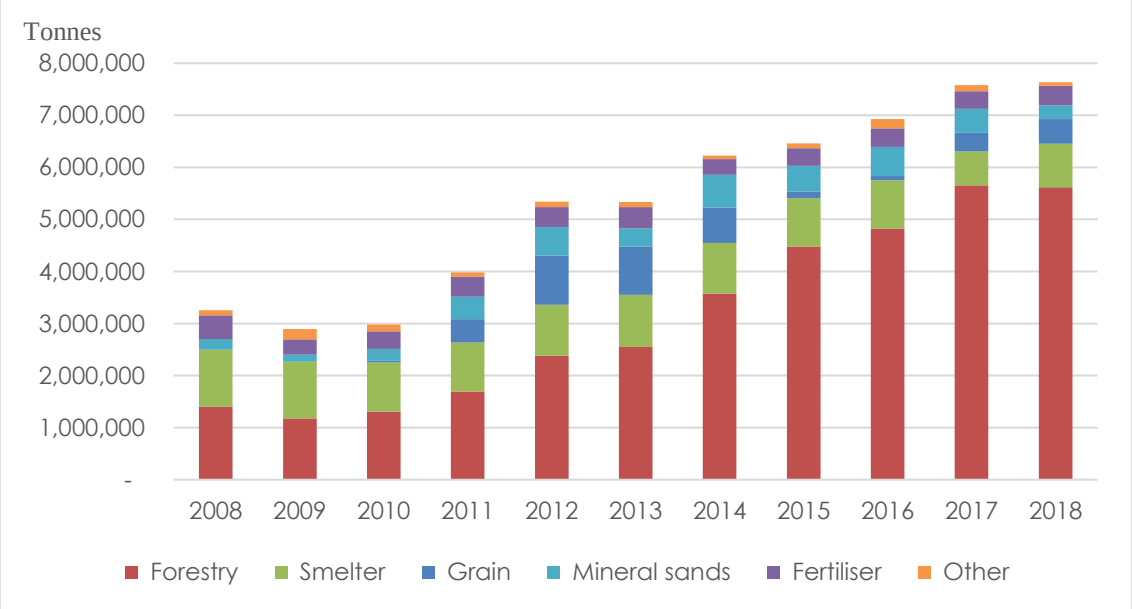
In a similar manner, the poor quality of many of the roads within the POPL catchment area is a clear barrier to efficient port competitiveness. Through reductions in load limits and speed restrictions, poor roading infrastructure impacts negatively on transportation costs, leading to higher costs to the exporters and overall reduced profitability and international competitiveness.

4.3 Historical trade levels

From 1987 to 2010, the Port handled relatively stable volumes of around 3 mtpa, with approximately equal volumes of forestry, smelter and other commodities. This changed from FY11 with the maturing of the Green Triangle plantations and the rapid increase in forestry products exports.

As illustrated in **Chart 1** below, the significant increase in Green Triangle forestry product volumes over the last 10 years has been the driving force behind the 135% increase in total trade through the Port during this period, from 3.3 million tonnes in FY08 to 7.6 million tonnes in FY18.

Chart 1 - Port of Portland historical volumes by commodity FY08 to FY18 (tonnes)



This increase was forecast in the August 2009 PLUS[14], with the 5-10 year high case presented in that document being very close to the FY17 and FY18 actual outcomes, as shown in **Table 5**:

[14] Port of Portland – Port Land Use Strategy, August 2009, page 43.

Table 5: Comparison of August 2009 PLUS forecast volumes to FY17 and FY18 actual (tonnes)

Commodity	August 2009 PLUS forecast Tonnes ('000) Low estimate*	August 2009 PLUS Tonnes ('000) High estimate*		Actual Tonnes ('000) FY17	Actual Tonnes ('000) FY18
Forestry Products	2,950	4,850		5,652	5,618
Smelter Products	1,100	1,650		652	836
Grain	500	1,000		359	471
Fertiliser	350	500		338	375
Mineral Sands	200	500		464	265
Other	50	100		114	68
Total	**5,150**	**8,600**		**7,579**	**7,633**

**The low and high estimates relate to a non-specific year between FY13 and FY18*

While the reasons for the individual commodity variances are detailed and diverse, they can be briefly summarised as follows:

- Forestry products increased at a greater rate than anticipated, mainly due to a higher than expected initial harvesting rate and the rationalisation of uneconomic plantations. It is noted that these factors are expected to contribute to a decline in annual forestry product volumes over the FY19 to FY26 period.
- Smelter product volumes initially held to the lower range of the forecast, but the expected 3rd pot line anticipated in the forecast smelter volumes did not eventuate and volumes stagnated at this lower level of approximately 1 million tonnes p.a. The power outage in December 2016 severely disrupted volumes for FY17, with FY18 also impacted.
- The 10-year actual volumes show that grain volumes are volatile and unpredictable due to weather impacting on growing conditions. Volumes in FY17 and FY18 are reasonably indicative of the average volumes over the FY14 to FY18 forecast period.
- Fertilizer is a very stable commodity, with the FY14 to FY18 average of 344 ktpa being in line with the lower end of the forecast.
- As forecast in the August 2009 PLUS, a mineral separation facility was constructed in Hamilton (but not in Horsham), and mineral sands volumes did increase significantly, with the FY14 to FY18 average of 480 ktpa being just below the August 2009 PLUS high forecast[15]. Volumes of this commodity reduced significantly in FY18 as a result of the exhaustion of Iluka's Murray Basin deposits and the mothballing of its Hamilton mineral separation plant. There is significant potential for large-scale mineral sands mining to re-commence within the Port catchment area within the next 5 years.
- Other commodities mainly consist of livestock (beef cattle), with some wind farm components. Livestock volumes over the FY14 to FY18 period have been stable at approximately 65 ktpa, with the wind farm components imports being volatile, but occasionally contributing somewhat similar volumes. Both trades are dependent on external factors, particularly the wind farm components, which are subject to energy company capital expenditure plans and government policies.

[15] Port of Portland – Port Land Use Strategy, August 2009, page 43.

4.4 Trade forecasting assumptions and scenarios

The significant increase in trade volumes through the Port of Portland over the last five years has required the Port to focus on future trade prospects and berth capacity planning. Extensive forecasting projects undertaken over the last two years have incorporated data from Port customers, suppliers and local and international experts across a number of commodity areas to identify possible outcomes for the Port over the next 25 years. These views were distilled into three separate scenarios, being base, high and low cases, for trade through the Port of Portland over the forecast period. The base case by commodity is shown in Chart 2, and the base, high and low scenarios in total are shown in Chart 3

Chart 2: POPL base case 25-year forecast by commodity (tonnes)

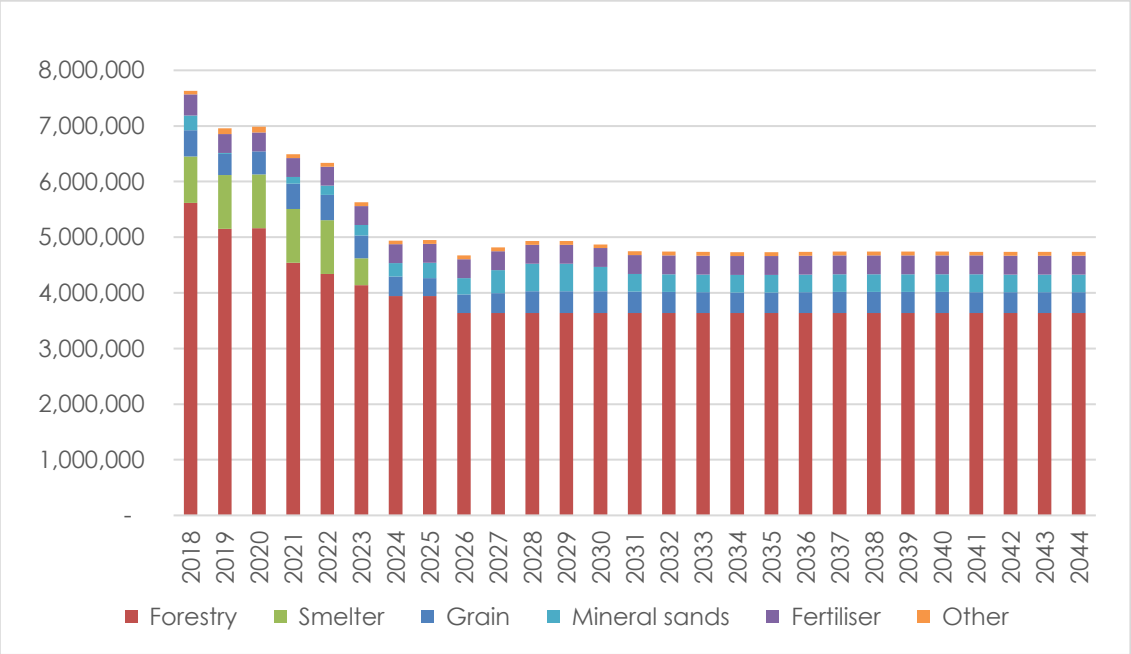
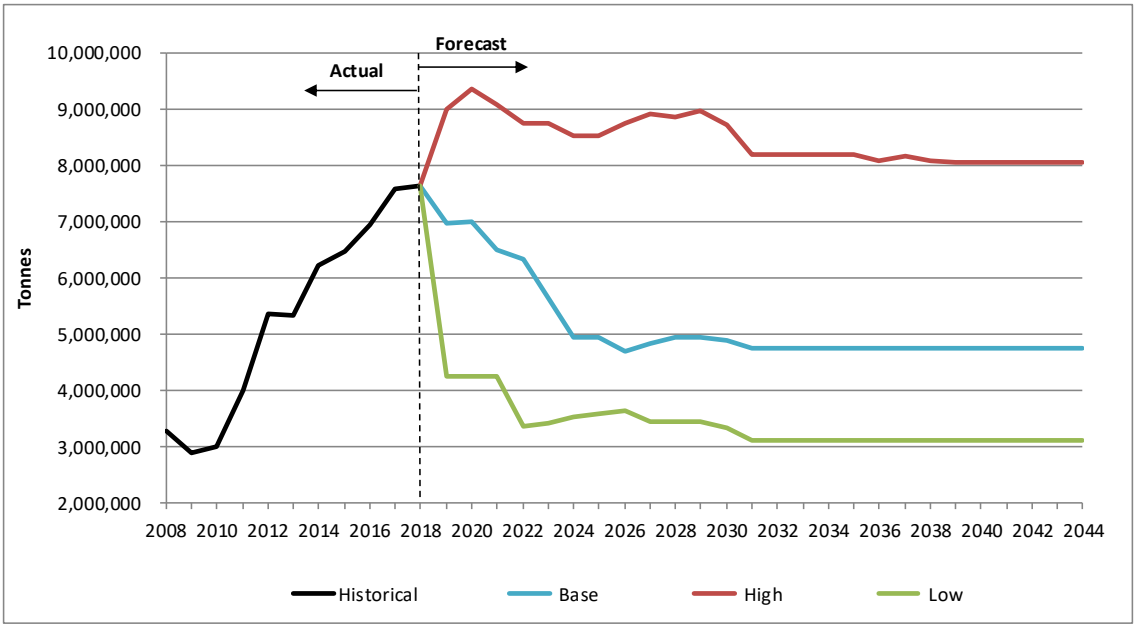


Chart 3: POPL 25-year forecast showing base, high and low scenarios (tonnes)



The following factors have been taken into consideration in the above forecasts and scenarios:

- Forestry products – Are expected to peak in the base case in FY18 at the 5.6 million tonne per annum level, then gradually decline until FY26 and remain steady thereafter at approximately 3.6 million tonnes per annum. This is a very difficult commodity to forecast as eventual volumes will be a function of land use economics and replanting rates beyond initial harvesting, with uneconomic plantations from the early MIS days reverting to alternate uses after harvest. One major customer indicated the range of possibilities, with a suggestion that one third of plantations will definitely be replanted, one third will definitely not be planted, and the remaining third will be subject to the specific economics at the time. The base, high and low scenarios reflect the range of different plantation yields and percentage replanting rates, and the timeframes over which those changes could occur. It is noted that POPL's base case leaned towards the conservative spectrum in respect to the decline, and that eventual short to medium-term volumes may be slightly better than the base case forecast. This is indicated by the actual November 2018 year to date volumes being 8% lower than for the same period last year, but 11% higher than the forecast – i.e. a reduction in volumes, but maybe more gradual than suggested in the base case.
- Mineral sands – POPL's forecasts correctly predicted the mothballing of Iluka's Hamilton facility pending the possible success of its new technology-dependent deposits near Balranald. The expected world-wide long-term shortfall in supply of mineral sands leads POPL to expect that this project plus at least one of the three Donald/Horsham region WIM mineral sands miners to commence production in its base case volumes at relatively low volumes. These WIM deposits are very large, with mine production lives expected to be beyond our forecast horizons, but there are technical issues for these types of deposits related to both extraction and processing. The high and low case scenarios reflect different views as to the likelihood and speed to which these projects can be developed into producing mines and their respective potential production levels. High case volumes exceed 2.7 million tonnes per annum on the basis that the technical difficulties will be overcome and all projects will proceed, whilst low case volumes assume that the technical difficulties will not be resolved and that only Balranald will procced to production at lower output levels.
- Aluminium – the future of the Portland Aluminium smelter is uncertain beyond the 4-year Governmental support arrangements extended to the company in 2017. The Smelter has agreed that it will run at not less than 90% of capacity during the 4-year support period, but beyond this arrangement the long-term future is tenuous given the increasing cost of electricity in Australia compared to other parts of the world, especially China. POPL has taken a conservative approach and has not included smelter volumes in any of the scenarios post the end of the 4-year period.
- Grain – POPL has assumed the long-term (10-year) average for its grain base case, with the high case at approximately 50% above this level and the low case nil.
- Fertiliser – This commodity is quite stable, so all three scenarios use the long-term (10-year) average.

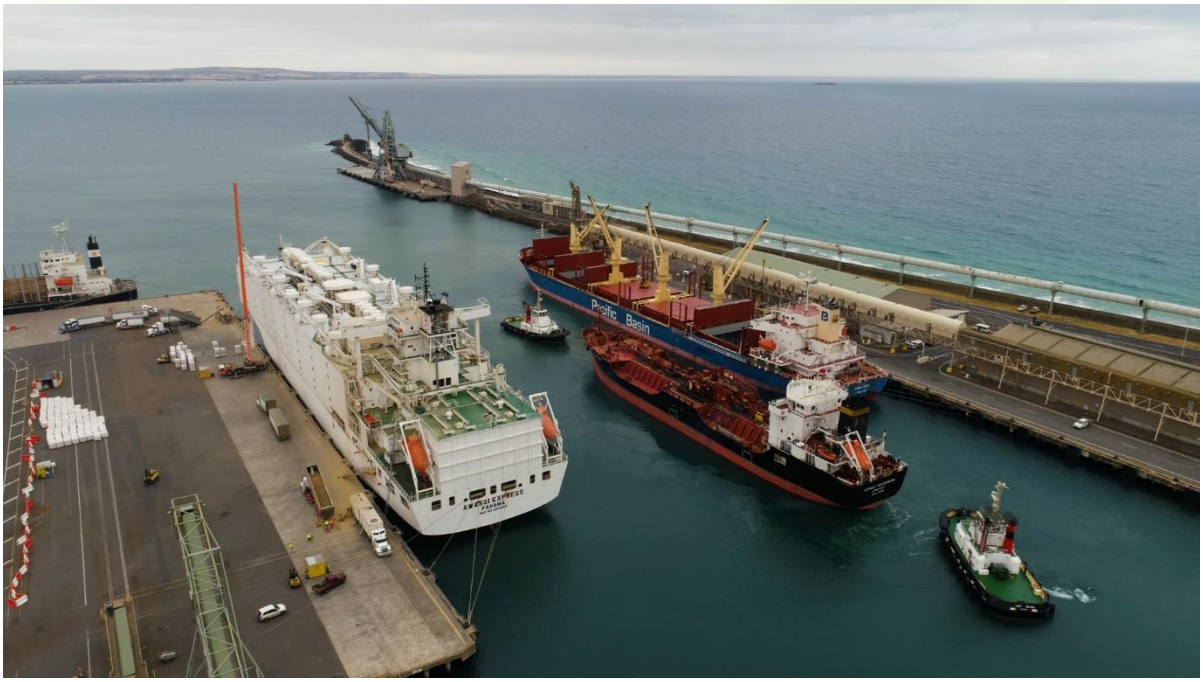
4.5 Projected Berth utilisation rates

Table 6 below provides a useful summary of potential berth utilisation rates that have been modelled by POPL as part of the forecasting process to determine whether the high utilisation rates experienced in FY17 and FY18 would continue. The forecast reduction in overall volumes, particularly in forestry products, is expected to ease berth utilisation to more manageable levels. It is noted that a 60% berth utilisation rate is considered to be a "good" occupancy rate and over 80% to be very high, so in the base case scenario the reduction in utilisation rates to these lower levels is considered to be a normalisation of Port activity levels.

Table 6: Projected berth utilisation

Commodity	FY18 Actual		FY21 Base case	FY21 High cash		FY25 Base case	FY25 High case
Berth No 1	67%		57%	78%		41%	64%
Berth No 2	6%		7%	18%		5%	15%
Berth No 5	74%		54%	79%		35%	85%
Berth No 6	80%		74%	91%		59%	68%
Smelter Berth	40%		49%	59%		42%	62%
SL Patterson Berth	16%		17%	25%		16%	22%
Total volume (ktpa)	**7,633**		**6,489**	**9,069**		**4,948**	**8,515**

The forecast berth utilisation rates under the high case scenario indicates that utilisation rates will remain very high well into the forecast period. If these volumes do eventuate, a business case may be able to be made to construct a new berth.



5. Ship Fleet Projections

5.1 Historical ship fleet characteristics

In 2017 POPL carried out an analysis of the changing nature of the ship fleet over the previous 20 years. This analysis concluded that the size of the vessels visiting the Port is increasing, and that the percentage of larger vessels visiting the Port is increasing.

In respect to the size of vessels, POPL found that in FY97 the peak size for vessel visiting the Port was in the 180-190 metre range, whereas by FY17 the peak size was 190-200 metres.

Likewise, the study found that in FY97 the percentage of vessels over 198 metres visiting the Port was only 20%, whereas by FY17 this percentage had doubled to 40%.

POPL is of the view that this trend to larger vessels is likely to continue, as exporters and shipping companies strive for the economies of scale and higher operating efficiencies that these vessels offer.

5.2 Ship fleet forecasting assumptions and forecasts

The potential for increased numbers of larger vessels visiting the Port has implications for existing and future Port infrastructure, particularly in respect to tug and shiploader requirements, with both areas facing challenges in recent years.

The POPL Board has recently addressed the tug capability issue through the provisional approval to purchase two larger tugs and to increase its tug fleet from two to three. This purchase, when completed, will resolve the occasional heavy weather tug availability issue and an ongoing tug maintenance rotation issue, both of which created operational problems for the Port. A search is currently under way to find suitable tugs.

POPL experiences shiploading issues with some larger vessels, particularly on the GrainCorp Limited ("GrainCorp") owned and operated shiploader servicing KS Anderson Berth No. 1. This shiploader is of 1960's vintage and is too low to effectively cater for modern-sized, high sided wood chip transport vessels when they are empty. On these occasions the vessel is required to take on ballast to either lower or list the vessel to enable it to fit underneath the shiploader gantry. This is a necessary but inefficient process, which will become more prevalent as more larger vessels visit the Port. POPL and GrainCorp are exploring means by which a new, larger shiploader can be funded.

Other than the issues related to tugs and the GrainCorp shiploader, the increasing size of vessels visiting the Port is not expected to create any specific problems or have any impact on POPL's volume forecasts.

6. Land, terminal and shipping channel capacity

6.1 Land allocation requirements

The Port's primary role is to provide an intermodal link between land and sea transport. Such a link requires that land is available within the Port environs to reasonably cater for current and future uses.

As discussed in the August 2009 PLUS[16], and in the sections above, POPL has significant constraints in respect to increasing its land footprint as a result of the Port location adjacent to the Portland township and foreshore. There has been no change to this position in the last 10 years, with land availability for potential new trades remaining a key challenge in the management of the Port.

Within the main Port area there are historical constraints to efficient land use, with large parts of the Port tied to long-term leases with tenants that do not transact large export volumes. In particular, the tenancies involved in the grain and fertiliser trades are inefficient on this metric, as they occupy approximately 20% of the prime on-port Port area (i.e. excluding Canal Court and the Quarry), but only account for 11% of Port volumes. This is a long-term issue that will not be resolved until the relevant leases expire.

POPL recognises that the Smelter land, should it become available, is a natural expansion point for the Port. The smelter site comprises large tracts of industrial-usage land, including large hardstand areas, and already has a bulk commodity transport link to the Port via the overland conveyor direct to the Smelter Berth.

6.2 Terminal / berth development requirements

As discussed in Section 4.5, POPL's long-term trade forecasts and berth utilisation modelling in the base case indicate that the Port's existing berth infrastructure can handle the expected levels of trade, whilst the high case, should it occur, indicates that consideration will be required to construct a new berth.

POPL is aware of the implications arising from the high case and has identified a number of important factors that will influence the decision to construct a new berth, including:

- If a significant new trade was established in the POPL catchment region,
- If all the mineral sands projects proceeded, for a combined 2.7 mtpa,
- If the forecast reductions in the forestry products trade did not eventuate,
- If the grain trade was to significantly increase,
- If the Governments elected to extend their support for the Smelter for a further period.

A combination of these circumstances may provide the circumstances for a favourable business case to be developed for the construction of a new Berth No. 7 adjacent to the existing Berth No. 6.

[16] Port of Portland – Port Land Use Strategy, August 2009, page 53

6.3 Channel allocation requirements

The Port of Portland is a natural deep-water port with open access to Portland Bay and the Southern Ocean. Apart from the requirement to undertake sand bypass operations near the end of the Main Breakwater each year, the Port does not currently have any channel allocation issues or requirements.

The access to Portland harbour is governed by a Channel Operating Agreement with the Victorian Regional Channel Authority (VRCA), a Victorian State Government entity. This agreement covers infrastructure arrangements, including minimum channel depths to be maintained and protocols regarding channel bed levelling and port access.

6.4 Port Precinct Plans

The following is a brief summary of the current development plans as they impact the various Port precincts:

6.4.1 Breakwaters

The two breakwaters are well maintained and are in excellent condition. There are no plans to further develop or modify the breakwaters.

6.4.2 Berths

Whilst berth utilisation levels have been high in recent years, the reduction in mineral sands volumes and the forecast reduction in forestry and Smelter volumes, should they eventuate, will reduce utilisation levels to more manageable levels. In the base case there is currently no compelling reason for any additional development at berth level, whilst at high case, under circumstances already covered in this PDS, there may be a business case to be made for the construction of a new berth.

Any future berth development will be a function of any new volumes to the Port and will ultimately be driven by the future needs of the Port's customers.

6.4.3 Main Port precinct

The Main Port precinct is home to a wide range of tenancies, covering facilities for grain, wood chips, logs, fertiliser and mineral sands.

All of the large tenants in the main Port area have long-term leases to support their export operations, so there is a very low likelihood that the Port would seek to (or be required to) develop these areas beyond the present tenant's needs.

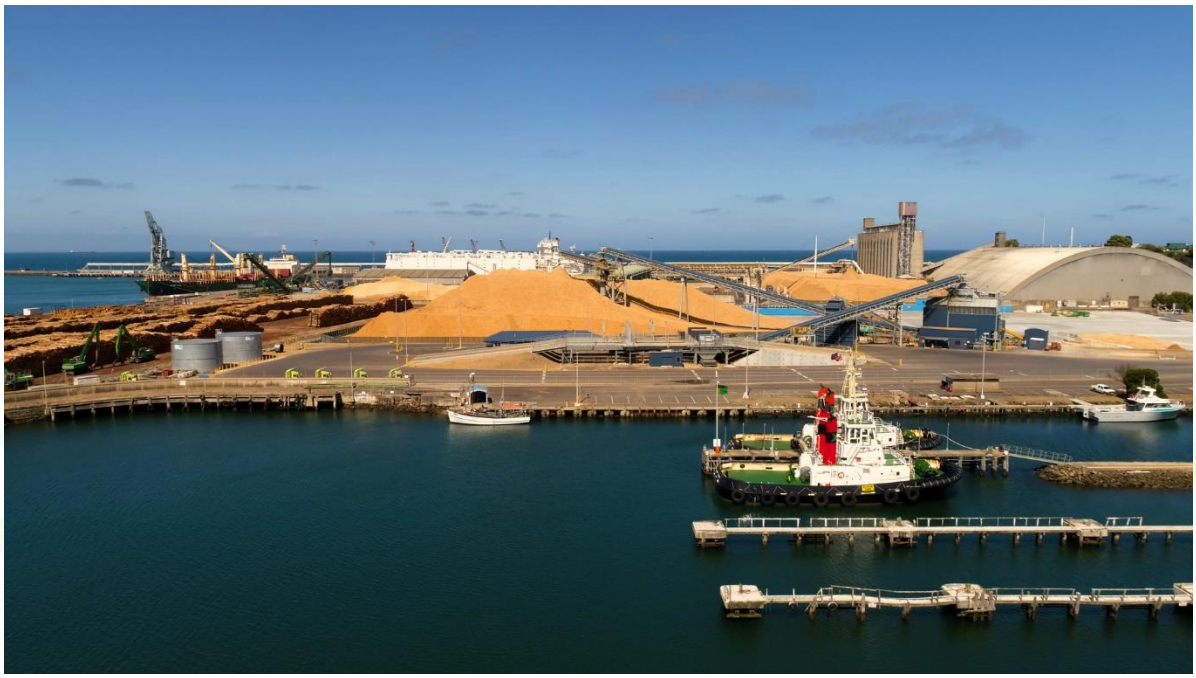
In some cases, such as the North West Corner or the Portland Chip Terminal, individual tenants may seek to improve the facilities on their tenancies in order to gain operational efficiencies. The Port is involved in the planning of these improvement projects to ensure that they meet the Port's standards, particularly in respect to safety, environmental and community amenity, but otherwise funding and execution is a matter for the tenants involved.

For those sites that are not covered by long-term tenancies, particularly the larger Bunker and No. 2 Quay sites, the Port makes these areas available for occasional importers and exporters, such as for the importation of wind farm components. Whilst the Port has no current plans to develop these sites, they are available if an alternate use is presented. For example, the

Bunker or No. 2 Quay sites could support either a second mineral sands facility or a wood pellet facility if those projects were to proceed.

As noted, the shiploader servicing the KSA Berths is old and inefficient. The Port is working with GrainCorp, the owner and operator of this facility, to potentially replace it with a modern facility.

The addition of a new rail spur along RB Anderson Road would significantly improve the logistics economics for exporters using the existing mineral sands, wood chip and log storage facilities adjacent to Berth Nos. 5 & 6, although this would only be feasible if the other rail system improvements proceeded.



6.4.4 Canal Court precinct

The Canal Court precinct comprises open hardstand of 4.7 hectares and is currently used for log storage under three separate tenancies. The expected reduction in log volumes may allow the current tenants to consolidate their log activities to the North West Corner, potentially making this site available for alternate uses such as mineral sands or wood pellets.

Canal Court is adjacent to the POPL rail yard and the proposed common-user bulk rail receival facility, so significant development could occur on and around this site if the State and Federal Governments were to improve and upgrade the rail links to the Port. This development could include additional covered bulk storage facilities and conveyor systems to move the product to the berths.

6.4.5 Marine Precinct

The Marine Precinct is an important site in that it creates the necessary buffer between the Foreshore precinct and the Port. This precinct is home to the tugs and pilot boats, but otherwise has limited operational uses due to its close proximity to the township and its distance from the berths.

The future of the Marine Precinct is currently under consideration, but there is no likelihood that it will be developed for Port operating purposes. There is some potential for the Tug Berth to be relocated to the southern section of Fishermens Wharf, but this proposal is of low priority at this stage.

6.4.6 Administrative Precinct

The Administration Precinct at Kunara Crescent is relatively new, with the main office constructed on this site in 2012. The Port has no plans to materially change this precinct.

6.4.7 Potential Smelter Precinct

The Portland Aluminium (Smelter) site covers an area of approximately 600 hectares, of which 100 hectares is used for operations and the balance is retained as a buffer between the Smelter and the township. The site is located approximately 4 km SSE of the Port. A bulk commodity conveyor links the Smelter Berth to large bulk storage facilities located on the north east corner of the Smelter site.

If the Government support for the Smelter is withdrawn and the Smelter ceases operations, this site could provide additional land resources for the Port.

6.4.8 Quarry site

The Quarry site covers approximately 37 hectares, some 6 km from the Port. Approximately 2 hectares of the area is hardstand and is currently used for log and wind farm component storage. There is potential to further develop this site if an appropriate use presented, but the site is remote and rugged, so potential alternate uses are limited.

7. Landside transport infrastructure requirements

7.1 Existing road and rail networks and constraints

7.1.1 Existing rail networks

Maroona-Portland line

The Port of Portland is connected to the Victorian Rail Network via the Maroona-Portland Line, which is a 172km stretch of standard gauge track currently rated at 19 tonnes axle limit ("TAL").

The Maroona-Portland line has been managed by the Federal Government via the Australian Rail Track Corporation ("ARTC") since its transfer from the Victorian Government in March 2009. As of the date of this PDS, this transfer has proven to be somewhat counterproductive: on one hand, it was initially beneficial as on acquisition ARTC expended approximately $15 million to refurbish the line, but on the other hand, the line was excluded from the recent Murray Basin Rail Project ("MBRP"), which raised the load limit on most Murray Basin rail lines from 19 TAL to 21 TAL (refer Figure 1 below), whilst the Maroona-Portland line remained at 19 TAL. This exclusion appears to have occurred because the MBRP was a Victorian State initiative, whilst ARTC is a Federal Government corporation. The result of this exclusion is that the Maroona-Portland Line, and thus the Port of Portland, has been effectively stranded from the rest of the Victorian rail network, because it is uneconomic to under-load or off-load trains to comply with the lower track rating.

Following the completion of the MBRP in 2020, this disparity between the wider rail network and the Maroona-Portland line will result in significantly less rail transportation to the Port of Portland, as there is a 15%[17] difference in rail cost per net tonne per kilometre between 19 TAL and 23 TAL. A potential consequence of this disparity is that under-utilisation of a rail line leads to lower maintenance expenditure, which leads line load or speed downgrading and to even lower utilisation. This is a vicious cycle that ultimately leads to rail line closure.

Whilst the Portland line remains at a rating of only 19 TAL there is a financial and operating disadvantage for any exporter considering the Port of Portland as an alternative to the other ports or to road transport, thereby significantly reducing port and modal competition in Victoria. Conversely, there are significant advantages to exporters if the Maroona-Portland line is upgraded to 23 TAL:

- Existing and prospective exporters through the Port of Portland can benefit from reduced supply chain costs arising from increased productivity and lower transport costs as a result of a higher capacity rail link,
- Conversely, if the Maroona-Portland line is not upgraded, this structural barrier to competition will be a significant disadvantage to all businesses considering exporting through the Port of Portland.

This is a critical issue for the Port of Portland and its mineral sands clients, as there is the potential for over 2 million tonnes of mineral sands per year to be exported from the Donald/Horsham region (probably via the 23 TAL-rated Murtoa interchange) and from the

[17] As advised to POPL by Department of Economic Development, Jobs, Transport and Resources (DEDJTR)

Balranald region. Without the Maroona-Portland line upgrade to 23 TAL there is a strong possibility that this trade will bypass Portland to be exported via Geelong Port.

Alternately, if the mineral sands are exported via Portland, without the rail line upgrade there is a strong possibility that the product from the Donald/Horsham region will be transported to Port by road. At 2 mtpa production levels, this would add a further 37,000 x 54 tonne loads (equivalent to 74,000 truck trips) to the already busy Henty highway, which already carries significant woodchip traffic.

A 2017 joint request by POPL and the Glenelg Shire Council to the Federal Department of Transport for funding to upgrade the Maroona-Portland line to 23 TAL to be equivalent to the link to Geelong Port is currently being considered by the Victorian and Federal governments.

The Mt Gambier-Heywood rail line

The August 2009 PLUS raised the prospect of the resumption of a rail freight service on the defunct Heywood-Mt Gambier line[18], shown on Figure 1 in blue, with the proposal also included in the *Victorian Freight Network Review*[19] and the *Green Triangle Region Freight Action Plan*[20]. There was an expectation in 2009 that this line would be reopened and converted to standard gauge to allow forestry products to be transported by rail from the Green Triangle region to the Port. This did not eventuate, resulting in 100% of the 5.6 million tonnes of forestry products being transported by road to the Port last year.

POPL is still of the view that the Mt Gambier – Heywood rail link is an important piece of infrastructure, with the capability of removing several millions of tonnes of wood chip freight from the roads.

The upgrade to this line could potentially result in higher replanting rates of hardwood from the MIS period, which would increase Victoria's future export value.

Hopetoun-Murtoa line

Whilst the Hopetoun-Murtoa line did receive a refurbishment in 2014-15, it did not receive the upgrade recommended in the *August 2009 PLUS*[21], and its rating remains at 19 TAL. This line was also excluded from the MBRP, and, as with the Maroona-Portland line, is now effectively stranded from the 21 TAL-rated, wider Victorian rail network.

The upgrade to this line could potentially result in higher replanting rates of hardwood from the MIS period, which would increase Victoria's future export value.

Conclusions re existing rail links to the Port of Portland

Successive State and Federal Governments have not assisted the exporting businesses of western Victoria and eastern South Australia in respect to the provision of high-quality transportation infrastructure in the region. Despite there being over 6.3 million tonnes of bulk transportable commodities exported via the Port in FY18 (refer to **Table 7** in this regard), only a very small proportion was carried by the more efficient and environmentally-friendly rail

[18] Port of Portland – Port Land Use Strategy, August 2009, page 26
[19] Victorian Rail Freight Network Review, Victorian State Government, 2008, page 58
[20] Green Triangle Freight Action Plan, Victorian and South Australian State Governments, 2009, page 51
[21] Port of Portland – Port Land Use Strategy, August 2009, page 60

system, whilst the vast majority was carried by truck through the streets and towns and along the highways of country Victoria and South Australia.

Whilst there has been a significant increase in volumes since the August 2009 PLUS was released, those volumes were accurately predicted in that report and recommendations made to improve rail infrastructure to take advantage of the increase in trade[22], and reduce the loss of amenity experienced by local communities caused by heavy road transport. The opportunity to take advantage of a better transport system over the last 10 years has been lost, but POPL's forecasts show that this trade at 5 million to 8 million tonnes per annum levels is expected to continue beyond the 25-year forecast period.

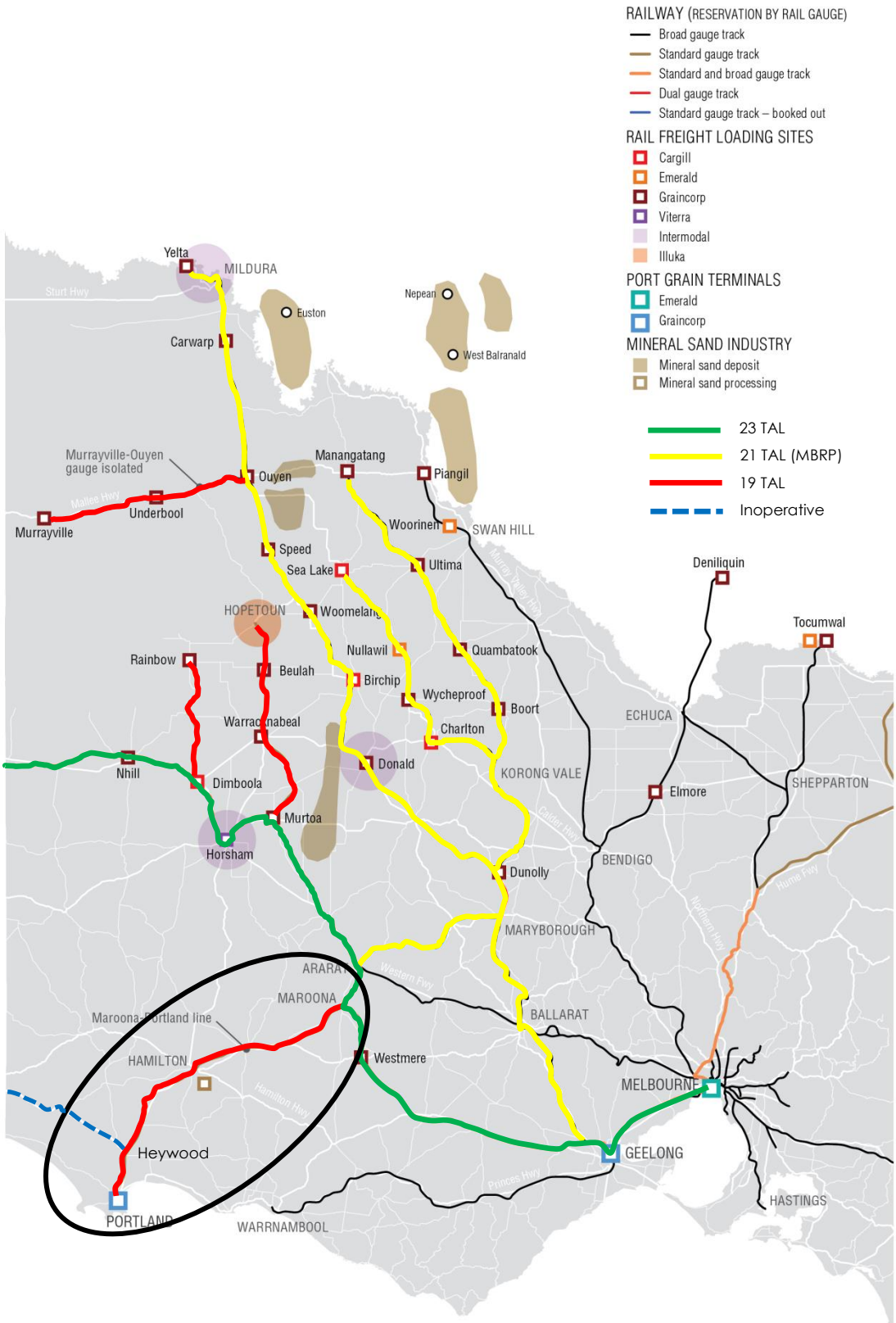
It is noted that at the time of preparing the August 2009 PLUS, it appears the concept of "Externalities" was not taken into consideration in rail business cases. Externalities is the term used to take into consideration the hidden costs of a particular transport project, such as the need to properly maintain alternate transport routes, the impact on local communities, the amenity of the residents and factors such as increased car accidents. Externalities quantify these hidden costs so that they can be included as favourable elements in rail project feasibility studies. It is understood that these elements were not considered in the business cases for the re-instatement of the Mt Gambier-Heywood line and Maroona-Portland line, and that if those businesses cases were prepared today including the Externalities the result will be very different.

If the above rail improvements were to proceed, this could lead to the construction of a new on-port rail spur and receival point along RB Anderson Road to service the existing mineral sands, wood chip and log storage facilities adjacent to Berth Nos. 5 & 6. This mine or forest infrastructure link directly to the wharf would significantly enhance the export fundamentals for all of these trades and contribute to the feasibility of the other rail projects.

Port statistics show that one truck enters the Port every 43 seconds[23], most of which are carrying forestry products from the Green Triangle region. With the benefit of hindsight, the negative impact of an additional 4.6 mtpa has had on the roads and communities between the Green Triangle and the Port is self-evident.

[22] Port of Portland – Portland Use Strategy, August 2009, page 48.
[23] Port of Portland – Fast Facts

Figure 1: Axle load ratings across Western Victoria



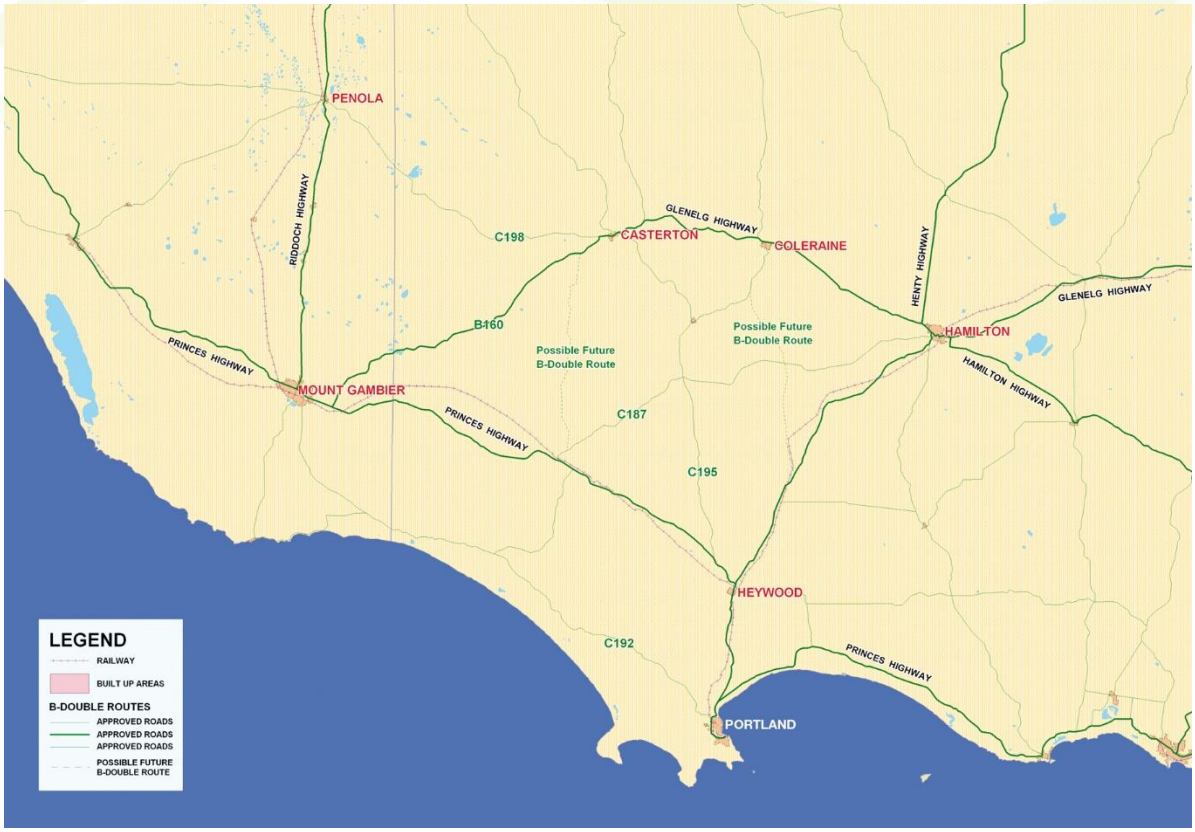
7.1.2 Existing road networks

Regional/State Road Network (freight routes)

Port related traffic, including semi-trailers and B-double trucks, relies on freight routes which are able to carry high volumes of large vehicles between key destinations and the Port. The key routes in Victoria and south east South Australia that serve the Port include:

- Princes Highway (A1).
- Portland - Nelson Road (C192).
- Henty Highway (A200).
- Glenelg Highway (B160).
- Portland-Casterton Road (C195).
- Casterton-Dartmoor Road.
- Condah-Coleraine Road.

The key issues relating to the regional/state road network in western Victoria and eastern South Australia is that it is overused by heavy transport, and that it is underfunded. As noted in Section 6.2.1, the large increases in forestry and mineral sands volumes from the Green Triangle and Murray Basin regions were forecast in the August 2009 PLUS[24]. A range of rail-related measures were proposed to efficiently and effectively handle these increases, but none were implemented. The result of the lack of action on rail, and the lack of necessary investment in road infrastructure has led to the current situation where large numbers of heavy transport vehicles compete with local residents and other road users on an increasingly degraded road network.



[24] Port of Portland – Portland Use Strategy, August 2009, page vi.

Princes Highway (A1)

The A1 is a key east-west corridor through south-western Victoria, providing a strategic transport link to Melbourne, western Victoria, south east South Australia and Adelaide. The route serves domestic and export markets via the Ports of Geelong and Portland.

- Condition
  - This road is in a satisfactory condition.
- Strengths
  - Approved B-double route.
  - Two to four lanes with regular overtaking lanes being constructed.
  - Provides key connection to larger cities including Mount Gambier and Warrnambool.
- Principal Freight Carried to the Port of Portland
  - Major freight route for hardwood and softwood timber from the south east of South Australia, including those plantations around Mount Gambier, Penola and Millicent, carries approximately 50% of all forestry products to the Port.
  - It also provides the means to transport large (oversized infrastructure) such as wind farm components and turbines.
- Future Demands
  - Will continue to provide key route for forestry, grain and wind farm components.

Portland-Nelson Road (C192)

This route provides an additional east - west link between South Australia and the Port. It also passes through extensive areas of softwood and hardwood plantations and has direct linkage with the Henty Highway bypass of the Portland town centre.

- Condition
  - This road requires heavy patching and sectional resealing.
- Strengths
  - Approved B-double route.
  - Provides key connection between south-west pine plantations and the Port.
  - Has limited towns en-route to slow traffic flow.
  - Direct connection into Portland city limits.
- Principal Freight Carried to the Port of Portland
  - The C192 provides a major freight route for hardwood and softwood timber from the south west of Victoria, carrying most of the 50% balance of the forestry products to the Port
- Future Demands
  - Will continue to provide key route for forestry freight.

Henty Highway (A200)

The Henty Highway (A200) is a key transport corridor which connects Portland to Hamilton and Horsham and beyond to Warracknabeal and Mildura in the far north. The Henty Highway shares part of its route with the Princes Highway between Heywood and Portland North and then follows the Portland Ring Road. The Henty Highway north of Heywood is a key route servicing the major grain supplies and mineral sand deposits in the Western District, Wimmera and Mallee regions of western and north-western Victoria. This road carries very high levels of

heavy transport and is in very poor condition from Hamilton to Portland, particularly on the loaded (eastern) side of the road.

- Condition
  - This road is in very poor condition from Hamilton to Portland, particularly on the loaded (eastern) side of the road. It requires rehabilitation, some heavy patching and sectional resealing.
- Strengths
  - Approved B-double route.
  - Provides key connection between grain district and mineral sands supplies and the Port.
  - Direct north-south connection across western Victoria extending to Murray-Darling Basin in north.
- Principal Freight Carried to the Port of Portland
  - The A200 provides the major freight route for grain and mineral sands from the mid-west and north-west districts of Victoria.
  - The section from Heywood to Portland carries most of the forestry products to the Port
- Future Demands
  - Is likely to carry most of the potential 2 million tonnes of mineral sands per annum from the new Donald/Horsham region mines, if the Maroona-Portland rail line is not upgraded.
  - Will continue to provide key route for grain which has distinct seasonal trends.

Glenelg Highway (B160)

The Glenelg Highway (B160) is a major east-west highway between Ballarat and Mount Gambier. The B160 crosses the Henty Highway at Hamilton and several other north-south secondary freight routes. Whilst the Glenelg Highway does not directly link with the Port, it provides an important route for freight using the region and connects to other freight routes which provide a more direct links to the Port.

- Condition
  - This road requires heavy patching and sectional resealing
- Strengths
  - Approved B-double route.
  - Provides connection between timber industries, mineral sand and grain districts.
- Principal Freight Carried to the Port of Portland
  - The B160 provides a major freight route for timber from the Green Triangle Region and commercial freight bound between Melbourne and Mount Gambier.
- Future Demands
  - Will continue to provide key route for forestry and grain freight.

Portland-Casterton Road (C195)

This is a north-south route that primarily services the pine plantations of western Victoria. It passes to the east of softwood and hardwood plantations located between the Glenelg and Princes Highways, but provides a shorter route for freighting timber products to the Port rather than using the major highways. This road carries very high levels of heavy transport and is in very poor condition.

- Condition
  - This road requires rehabilitation, heavy patching and sectional resealing
- Strengths
  - Provides key connection between mid-west pine plantations and the Port.
  - Has limited towns on route which slow traffic flow.
  - Comes out in close proximity to Heywood.
- Principal Freight Carried to the Port of Portland
  - The C192 provides a major freight route for hardwood and softwood timber from the south west of Victoria.
- Future Demands
  - Will continue to provide key route for forestry and grain freight.

Casterton-Dartmoor Road

This is a north-south route traversing the heart of the Green Triangle Region and is currently in the control of Glenelg Shire Council. The route has undergone numerous upgrades via State Government (VicRoads) funding opportunities as it has a significant role in freighting timber products from the Green Triangle Region. This route provides strong connectivity for plantations from east of Penola, at Casterton and at Dartmoor. It connects both to Princes Highway and onwards south to the Portland-Nelson Road.

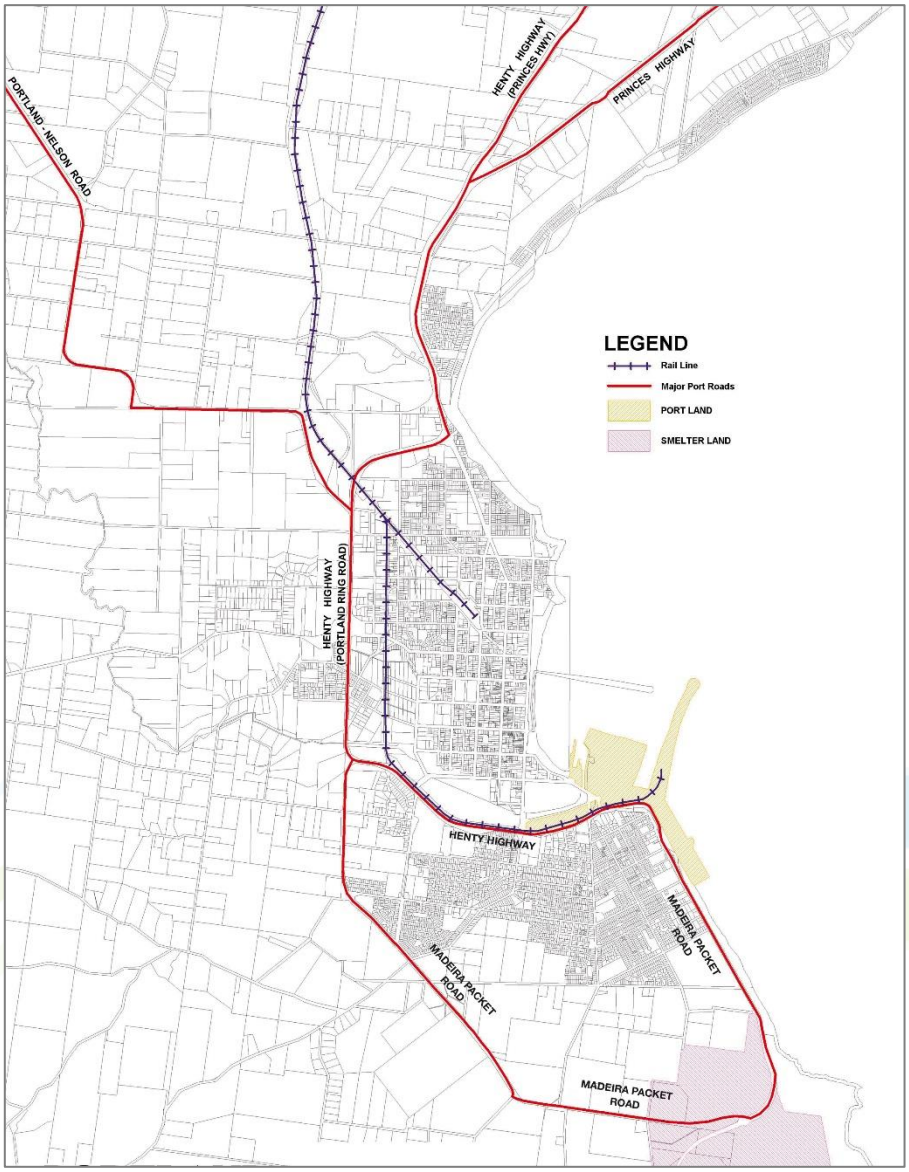
- Condition
  - This road requires sectional patching.
- Strengths
  - Support for elevation in hierarchy to accommodate B-doubles.
  - Strong connectivity across Green Triangle Region towards the Port.
  - Has limited towns on route which slow traffic flow.
- Principal Freight Carried to the Port of Portland
  - This route provides primarily for forestry products; however it is currently limited in its ability to carry large freight loads.
- Future Demands
  - Will continue to provide key route for forestry freight.

Condah-Coleraine Road

This road runs north-south between Coleraine (Glenelg Highway) and Condah (Henty Highway). It has been identified as providing value as a short cut between Coleraine and Heywood (by-passing Hamilton).

- Condition
  - New to satisfactory
- Strengths
  - Approved B-double route.
  - Short route between Glenelg Highway and Henty Highway.
  - Has limited towns on route which slow traffic flow.
- Principal Freight Carried to the Port of Portland
  - This route provides primarily for forestry products freight from north-west Victoria.
- Future Demands
  - Provides an additional resource for freight transport (from north) reducing reliance upon Princes Highway and parts of Henty Highway (north of Heywood).

Local Road Network



Port Access

There are currently five separate access points to the Port owned land from Henty Highway / Madeira Packet Road. They include:

- R B Anderson Road providing entry to and exit from the timber, grain and mineral sands storage areas;
- A secondary exit-only gate (No 2 Quay Road) is situated about 300 metres further east, generally assisting with vehicles leaving the Port area from the above entry;
- A third access point a further 400m east is used to access/egress the Smelter and livestock berth areas;
- A fourth access point that provides direct entry/exit to the Incitec Pivot plant which is located approximately 50m south of the Smelter access point; and
- A fifth entry/exit gate is 10 metres east of No. 2 Quay Road, for over-dimensional freight leaving the Port and needing to turn left into Madeira Packet Road.

There are also a number of access points to the marine industry facilities in the Marine Precinct. These are provided directly from Cliff Street. Access to Fishermen's Wharf remains via Fishermen's Breakwater Road.

Prior to the opening of the Cliff Street overpass in October 2006 the road network adjoining the Port was constrained by conflicts between trucks and passenger vehicles. However, with the completion of the Cliff Street overpass, Port related traffic has been segregated from local traffic to improve access for trucks and provide safer traffic conditions for residents. This overpass has been critical in assisting access to the Port as trade volumes increased over time.

Henty Highway - Madeira Packet Road

This section of the Henty Highway is a two-lane road that provides direct access to the Port via the Portland Bypass. Beyond the Port it becomes Madeira Packet Road and follows the coast to the Portland Smelter and returns to reconnect with the Portland Bypass. Whilst promoted as a key access road to the Port and smelter it also services local communities to the south of Portland and provides a tourist route. Ensuring uninterrupted flow of traffic using this road is critical to maintaining continual access to the Port, particularly during peak periods.

Henty Highway (Portland Bypass or Portland Ring Road)

The Henty Highway ring road provides direct access from the Port to the regional strategic road network including the Princes Highway and the Portland-Nelson Road.

It is located adjacent the western boundary of Portland township. The Henty Highway is a two-lane road with an 'A' classification within the VicRoads road hierarchy. Approximately 3,500 vehicles travel along the Henty Highway heavy vehicle bypass on a daily basis.

The pedestrian crossing on the Henty Highway mentioned as a safety concern in the August 2009 PLUS has been removed and replaced with a pedestrian bridge (the Reg Saunders Bridge)[25].

There are sections of the Henty Highway that are considered sub-standard with poor delineation and adverse sight distance. Although grade separation is provided at Bridgewater Road, Bentinck Street-Cape Nelson Road and now Cliff Street-Wellington Road, many local roads which intersect are inconspicuous and poorly defined. An increase in vehicle traffic along Henty Highway will further test these existing concerns.

7.2 Anticipated network developments and improvements

The *Green Triangle Freight Action Plan*[26] sets out a plan for the upgrade and maintenance of the roads within the Port catchments area. Whilst many of the road initiatives proposed in the plan have been completed, the clear conclusion to be drawn from the current state of these roads is that they are not being adequately maintained to cater for the high levels of heavy transport that use them.

[25] Port of Portland – Portland Use Strategy, August 2009, page 22.
[26] Green Triangle Freight Action Plan, Victorian State Government, 2009, page 44

In addition to increased investment in road maintenance for both regional and local roads, additional Governmental investment is required to upgrade a number of bridges within the Port catchment area:

- The Ring Road bridge at Bridgewater Road is too low to allow wind tower components to pass, and
- The Wattle Creek bridge is too narrow and has weight limit concerns.

These upgrades will improve the efficiency of movement for large loads and reduce the interface issues created when heavy vehicles need use suburban streets in order to bypass low bridges.

7.3 Forecast road and rail network demand

Bulk transported commodities

For the Port of Portland, bulk transported commodities in this context represents the grain, forestry products and mineral sands being transported from the Green Triangle and Murray Basin/Donald/Horsham regions. The transportation of these commodities is of significant concern to road and rail network planers due to the very high volumes being transported – some 6.4 million tonnes in FY18, most of which was transported by road.

As illustrated in **Table 7** below, POPL's base case 25-year forecast indicate that these bulk commodities will have peaked in FY18 at 6.4 mtpa and will steadily decline to 4.5 mtpa by FY24 and stabilise at this point, with the majority of the decline attributable to forestry products.

In the high case forecast for bulk commodities, Table 7 indicates an overall increase of in bulk volumes of 1.7 mtpa by FY24, reflecting a smaller decline in forestry products and additional mineral sands trade of approximately 2.2 mtpa from the Donald/Horsham region (rising to 2.7 mtpa in FY27).

Ignoring the impact of grain, which is sporadic, relatively low volume and partly transported by rail, these forecasts suggest that there is a long-term sustainable bulk commodity transport requirement of between 4.2 mtpa and 7.2 mtpa to be transported from the Green Triangle and Donald/Horsham regions to the Port.

Table 7: Comparison of bulk transportable commodities – FY18 Actual v FY24 base and high case scenarios (tonnes)

Commodity	Actual Tonnes ('000) FY18		Forecast Tonnes ('000) FY24 Base case	Forecast Tonnes ('000) FY24 High case
Grain	471		356	900
Forestry Products	5,618		3,940	5,040
Mineral Sands	265		238	2,161
Total	**6,354**		**4,534**	**8,101**
% Change from FY18 actual			**-29%**	**+27%**

The August 2009 PLUS anticipated an increase in bulk commodity trade of 4.7 mtpa from FY08 to FY18[27]. With the benefit of hindsight, we know that this forecast was accurate, as the actual increase for FY18 for these commodities was 4.7 mtpa. The August 2009 PLUS discussed a range of initiatives to avoid these additional volumes being diverted into the road transport system[28], including:

- the upgrade to the Maroona-Portland line,
- the re-instating of the Mt Gambier-Heywood line,
- and the construction of a new common-user rail receival facility on land adjacent to the Port.

Unfortunately, none of these initiatives came to fruition, resulting in 100% of the additional volumes being transported to Port by road.

If the base case scenario comes to pass the levels of road transport will reduce, but still remain high, but if the mineral sands technical problems are overcome, those communities will see a possible 27% increase in the volumes transported by road within the next 6 years.

On the basis of the existing long-term sustainable forestry products trade, and the potential mineral sands trade, the Port requests that the Victorian State Government institutes a review of these rail projects, with Externalities to be included, to determine if there is a business case for the transportation of between 4.5 mtpa to 8.1 mtpa to Port by rail.

Other transportable commodities and goods

Apart from the bulk transportable commodities of grain, forestry and mineral sands, there are relatively low volumes of other trades transported to or from the Port, and most are transported over relatively short distances, as shown in **Table 8**:

Table 8: Comparison of other trade volumes – FY18 Actual v FY24 base and high case scenarios (tonnes)

Commodity	Actual Tonnes ('000) FY18		Forecast Tonnes ('000) FY24 Base case	Forecast Tonnes ('000) FY24 High case
Smelter Products	836		-	-
Fertiliser	375		340	340
Other	68		67	90
Total	**1,279**		**407**	**430**
% Change from FY18 actual			**-56%**	**-24%**

- Bulk alumina, coke and aluminium fluoride imports are transported directly from the vessel to Smelter via the overland conveyor. These raw materials make up 74% of all Smelter volumes, with the balance comprising other Smelter raw materials 3% and ingots 23% being transported between Smelter and Port by road (approximately 5 km).

[27] Port of Portland – Portland Use Strategy, August 2009, page 43.
[28] Port of Portland – Portland Use Strategy, August 2009, page 60.

- Fertiliser raw material imports are transported from the Port to the Incitec Pivot site by road (approximately 500 metres) or to the storage facilities of Wengfu Australia located 1km north-west of the Port
- Livestock (included in Other) is exported in relatively low volumes from various sources across western Victoria and is 100% transported by road. The 10-year average is 67 ktpa,
- Wind farm components (balance of Other) are imported as required, with annual volumes ranging from nil to 94 kt in any year, with a 10-year average of 44 ktpa.

Of these other trades, it is only the wind farm components that pose a significant transportation issue for the importers (the energy companies) and for the community. Recent Victorian State Government actions and energy company capital expenditure programmes have seen a large increase in wind farm approvals and wind farm component imports, with two projects currently under way through the Port and a further 6 projects planned over the next two years. Given that there will be a practical limit to the total number of wind farms that can be built, it is unlikely that this trade through the Port will be ongoing over and beyond the 25-year forecast cycle, but it is feasible that the wind farm components will continue to be imported through the Port in significant volumes for the next few years. For the Port this trade is of very low volume, and has minimal storage issues, with the components only requiring unloading and transport by road to either a staging area (potentially on-port or off-port) or to the wind farm site. These wind farm components are very large – up to 72m long for the blades and 6.5m circumference for the tower sections. Apart from widespread damage to local roads from the heavy vehicles, the main transportation issue is that the Ring Road Bridge at Bridgewater Road is too low to allow the components to pass, so a longer route through the Portland suburbs needs to be undertaken to transport the components to their destination[29]. The need to bypass this bridge and transport these oversize components through the suburbs creates interface issues with local road users and residents. The upgrading of this bridge is currently being considered.

A potential second bridge issue is in respect to the Wattle Hill Creek bridge, which is narrow and has weight capacity questions for heavier mass vehicles.

It is understood that the increased cost to the energy company arising from the need to divert these components is significant. This cost will ultimately be paid by Victorian energy consumers.

[29] *Over Dimensional Roads – Portland Ring Road Project Draft Report*, GHD Advisory for the Victorian Government, November 2018, page 11

8. Land use planning considerations

8.1 Overarching land use issues

The Port's location adjacent to the Portland township means that there will always be land use planning issues to consider. These issues can arise in relation to:

- the Port's existing or planned operations (i.e. within the Port); and
- the changing plans or developments initiated by the local community or residents themselves (i.e. external to the Port).

Issues within the Port

The Port is a large-scale industrial port catering for customers who export high-volume commodities. By their nature, customer operations involve the use of large vessels, high levels of heavy transport, rail, heavy mobile equipment such as bulldozers and heavy conveyor equipment such as shiploaders. The Port is required to operate 24 hours per day, 7 days per week.

These operations give rise to a range of land use issues that have the potential to impact on the surrounding community. The August 2009 PLUS[30] provided a neat summary of these "Boundary issues", which still remain relevant 10 years later:

- Risk
  - Conflict between recreational and commercial vessels;
  - Storage of hazardous goods and materials;
  - Interaction between land-based structures and large vessels;
  - Spillage of fluid and potential fire hazards; and
  - Accidents involving vehicles.
- Emissions
  - Noise from heavy vehicles and loading and unloading operations;
  - Dust and odour generated through the movement of bulk commodities and livestock;
  - Contamination of waters surrounding the Port through the release of storm water; and
  - Light spill and glare generated by night time activities and security lighting.
- Amenity
  - Noise generated by heavy vehicles and shipping activities within the Port;
  - Visual impact of the Port on the foreshore environs;
  - Truck movements to and from the Port; and
  - Rail movements to and from the Port.

The Port works actively with its tenants, local residents and the Glenelg Shire Council to manage these issues as it takes its environmental responsibilities seriously. In many cases, the Port is working with its tenants as the Port is the land manager, but the emissions arise from the various tenants on the Port.

[30] Port of Portland – Port Land Use Strategy – August 2009, page 54

Most ports around Victoria and Australia, like the Port of Portland, are finding that their location within, and surrounded by, cities and local towns means there is pressure on their operations due to the noise, dust, traffic and other amenity issues discussed above.

To assist with this the Glenelg Planning Scheme includes a planning provision called the Environmental Significance Overlay 5 (**ESO5**) which assists from a planning perspective in managing these potential conflicts between land in the port environs and the adjoining land in Portland. The overlay provides that the land within this overlay area should not be developed for any purpose that might compromise the long-term protection and expansion of port operations, infrastructure and associated storage facilities

The Overlay aims to minimise the potential for future land use conflicts between the port and port environs and ensure that any use and intensity of development in the overlay area does not constrain the ongoing operation and development of the commercial port.

The Port is of the view however, that the present scope of ESO5 does not adequately cover all of the land areas that it should in order to adequately protect both the current and projected operational areas. It does not come to this view lightly, but rather existing and projected sound contour profiles are a useful guide in showing areas where noise impacts from the Port may impact on amenity unless the reverse amenity provisions in the Overlay are expanded to cover all impacted areas.

In pursuit of this objective, POPL has recently applied to the Council for an extension of the Overlay area to cover the land along the Henty Highway west of the Cape Nelson Road bridge, which is the expected location of the proposed common-user rail receival facility. The Port also intends to make application to Council to extend the Overlay area to a set radius from the Port.

From a planning perspective POPL will continue to work with the Council and the community to ensure that land use conflicts between the Port and other uses can be avoided through sensible and forward- thinking planning strategies.

Issues external to the Port

The reverse side to the Boundary issues equation relates to actions by the local community which have the potential to negatively impact on the Port's operations. These include:

- Residential developments in close proximity to the Port,
- Increases in the number of residents in proximity to the Port, and
- Other industrial developments within the local area or a broader area that can pose a risk to Port operations. These risks can be active or reactive in that these operations may impose a direct and physical risk to the operations that the Port undertakes and thereby directly impact on the Port's operations. But equally, they may be industrial operations such as aquaculture which could be impacted by the Port's activities (such as dredging, sand bypassing or channel management) and claim that the Port needs to limit or control its activities to minimise or avoid that impact. This is a reverse impact but is equally a risk to ongoing port operations.

The Port actively protects its rights under the Port Planning Overlay ESO5 reverse amenity provisions to ensure that all residential developments (including new residences and renovations) within the Port precinct comply with the planning requirements specified under

the Overlay and protect themselves against amenity impacts (due to double glazing etc). This ensures that their amenity is not impacted on an ongoing basis and that the parties can happily coexist. Furthermore, the Port is active in ensuring that other potential industrial developments or commercial businesses do not have the capacity to affect or impinge on current or potential future Port operations.

8.2 Port environs issues and considerations

The following potential initiatives may give rise to future planning issues at the Port:

- Building Berth No. 7.
- Building mineral sands facilities on either Canal Court or the "Bunker" site.
- Building wood pellet facilities on either Canal Court or the "Bunker" site.
- Building the common-user rail receival facility.
- Building an additional rail spur and receival facility along RB Anderson Road.
- Replacing the GrainCorp/KSA1 shiploader.
- Use of the Smelter property.
- Aquaculture developments at Dutton Way or in other areas proximate to POPL's sand bypassing operations or harbour dredging.
- Raising the height of the Ring Road bridge.
- Upgrading the North West Corner.
- Usage changes within the Marine Precinct.
- Increase in the usage of the 300-tonne slipway.
- Moving the tug berth to Fishermen's Wharf.
- Alternate uses for the POPL quarry.

8.3 Interactions of the PDS with planning scheme and approval requirements

8.3.1 State Planning Policy Framework

The State Planning Policy Framework (**SPPF**) sets out a State wide context for spatial planning and decision making. The SPPF provides general principles for land use and development planning and specific sectoral policies that must be taken into account and given effect when considering land use issues.

The SPPF forms part of all Victorian planning schemes. Port land use and planning is considered at Clauses 18.03 and 18.03-2S.

Clause 18.03-1S – Planning for Ports

Objective

To support the effective and competitive operation of Victoria's commercial trading ports at local, national and international levels and to facilitate their ongoing sustainable operation and development.

Strategies

Provide for the ongoing development of ports at Melbourne, Geelong, Hastings and Portland in accordance with approved Port Development Strategies.

Identify and protect key transport corridors linking ports to the broader transport network.

Manage any impacts of a commercial trading port and any related industrial development on nearby sensitive uses to minimise the impact of vibration, light spill, noise and air emissions from port activities.

Clause 18.03-2S – Planning for Port Environs

Objective

To plan for and manage land near commercial trading ports so that development and use are compatible with port operations and provide reasonable amenity expectations.

Strategies

Protect commercial trading ports from encroachment of sensitive and incompatible land uses in the port environs.

Plan for and manage land in the port environs to accommodate uses that depend upon or gain significant economic advantage from proximity to the port's operations.

Ensure that industrially zoned land within the environs of a commercial trading port is maintained and continues to support the role of the port as a critical freight and logistics precinct.

Identify and protect key transport corridors linking ports to the broader transport network.

Ensure any new use or development within the environs of a commercial trading port does not prejudice the efficient and curfew free operations of the port.

Ensure that the use and intensity of development does not expose people to unacceptable health or safety risks and consequences associated with an existing major hazard facility.

Ensure that any use or development within port environs:

- Is consistent with policies for the protection of the environment.
- Takes into account planning for the port.

8.3.2 Local Planning Framework

The Municipal Strategic Statement (**MSS**) is also part of the Glenelg Planning scheme at Clause 21. The MMS is a concise statement of the key strategic planning, land use and development objectives for the municipality and the strategies and actions for achieving the objectives.

The MMS recognises that the Shire's economy is based on, amongst other things, the Port of Portland, which is *'the international gateway for water-based freight for the Green Triangle Region as well as for select commodity producers beyond this region'* as well as being *'as a regional centre that provides State significant industry.'*

It also recognises the '*increasing role of the Port in relation to western Victoria and south-east South Australia, with the potential for the Port to act as a major maritime industry service centre'*.

In relation to the Port specifically, the MMS provides as follows.

- ***Clause 21.02-95 - Port of Portland (Key issues)***

Planning for the Port of Portland that enables the port to meet forecast demand for port related storage, ensure efficient and safe road and rail access and to provide effective land use buffers.

- ***Clause 21.02-96- Port of Portland (Objectives)***

To support the growth and development of the Port of Portland, as a port of State significance.

To ensure that the Port of Portland's development is not limited by other land uses and developments in nearby areas, either onshore or offshore.

- ***Clause 21.02-97- Port of Portland (Strategies)***

Ensure that the Port of Portland's operations minimise external amenity impacts and meet relevant State Environment Protection Policies.

Protect the Port of Portland from encroachment of sensitive and incompatible land uses in the port's environs.

Plan for and manage land in the port environs to accommodate uses which depend upon or gain significant economic advantage from proximity to the port's operations.

Ensure that industrially zoned land within the environs of the Port of Portland is maintained and continues to support the role of the port as a critical freight and logistics precinct.

Identify and protect key transport corridors linking the Port of Portland to the broader transport network.

- ***Clause 21.02-98 – Port of Portland (Implementation of Future Strategic Work)***

Review the application of the Environmental Significance Overlay Schedule 5 – Port of Portland Environs to reflect the modelled acoustic impact area and to ensure the continued protection of port operations.

8.3.3 Land Use Zoning Provisions

The Port land falls in under the Port Zone to the Glenelg Planning Scheme.

Port Zone (PZ)

Clause 37.09 of the Victorian Planning Provisions provides the purpose of the PZ is:

To implement the Municipal Planning Strategy, Planning Policy Framework and Port Development Strategies.

To recognise the significant transport, logistics and prime maritime gateway roles of Victoria's commercial trading ports in supporting Victoria's economy.

To provide for shipping, road and railway access and the development of each of Victoria's commercial trading ports as key areas of the State for the interchange, storage and distribution of goods.

To provide for uses which derive direct benefit from co-establishing with a commercial trading port.

To provide for the ongoing use and development of Victoria's commercial trading ports that support the relevant port development strategy prepared pursuant to the Port Management Act 1995.

8.4 Planning Overlay Controls

8.4.1 Removal of Heritage Overlay (HO165 - Portland Heritage Precinct)

Heritage Overlay HO165, set out in the previous 2009 PLUS Report, has been removed and no longer affects Canal Court.

8.4.2 Schedule 5 to the Environmental Significance Overlay (ESO5)

ESO5 of the Glenelg Planning Scheme affects some, but not all, areas adjacent to the Port of Portland footprint. The overlay manages potential conflicts between land in the port environs and the adjoining Port of Portland. Land within this overlay should not be developed for any purpose that might compromise the long term protection and expansion of port operations, infrastructure and associated storage facilities.

ESO5 provides as follows:

1.0 Statement of environmental significance

The overlay manages potential conflicts between land in the port environs and the adjoining Port of Portland. Land within this overlay should not be developed for any purpose that might compromise the long term protection and expansion of port operations, infrastructure and associated storage facilities.

2.0 Environmental objective to be achieved

Minimise the potential for future land use conflicts between the port and port environs.

Ensure that any use and intensity of development in the overlay area does not constrain the ongoing operation and development of the commercial port.

9. Environmental and social considerations

9.1 Existing social context, issues and considerations

The township of Portland has long identified as a community with a port at the centre of its life – physically, economically and commercially. Whilst this influence is now matched by the Smelter and various Government institutions, the Port is still a very significant economic and physical presence in the town, being the focal point of 7.6 million tonnes in trade in FY18, valued at over $2 billion.

As the Port is situated in the middle of the township, its operations interface with resident's houses on almost all of the Port precincts, and Port-related activities interact with residents and visitors on the streets and roads around the town and out on the open highways.

Thus, whilst the Port brings significant economic benefits to the community and the region that would otherwise have not arisen, there are also significant adverse impacts related to living and working near a large commercial port operating 24/7. Such impacts include noise and dust issues for those residents close to the Port perimeter, and constant and continual heavy vehicle traffic on the streets and highways.

Overlaying this scenario is the acknowledgement by State and Local authorities that the Port plays a vitally important role in the economic prosperity of the State and the Region and has therefore been awarded special land zoning and planning policy considerations to protect the Port from any development that would compromise the Port's operations.

POPL is acutely aware of both the positive and negative aspects of its location at the centre of town and takes active measures to address existing community interface issues, and to avoid future issues through careful planning and execution of new trades and facilities. These measures are underpinned by regular, open and honest communications between the Port, Port tenants and residents. These meetings are held on a quarterly basis at the Port offices, with formal minutes taken and action items agreed to. Most of the issues are practical, such as safety, noise and dust, but it is also used as an effective forum to advise and consult with residents on new developments and strategies and changes to operational processes.

POPL considers this grass-roots process to be very effective, allowing it to "feel the pulse" of the community and respond quickly if any issues of public concern arise.

9.2 Existing environmental condition and management

The Port takes its environmental responsibilities extremely seriously, and actively manages its existing and potential environmental exposures through its Safety, Health and Environment Manager and the Port Safety and Environmental Management Plan.

The Port's role as a bulk commodity handling terminal means that most of the environment-related issues are under the direct control of the Port's tenants and their agents. To this end, most of the Port tenancy agreements include specific environmental management system requirements as part of the lease documentation.

Existing and on-going environmental managements issues include:

Noise

The Port operates 24/7 in most precincts, and it is located close to residential properties, so noise from Port tenant operations is an on-going management issue. The fact that noise is a factor in Port operations is recognised within the Port Planning Overlay, but nonetheless, the Port and its tenants have a responsibility to address resident's complaints promptly and effectively. An example of such an arrangement is in the Canal Court log storage area, where all tenants have voluntarily restricted operations so that log receival does not occur between 22:00 to 6:00. This restriction only applies to log receivals, as all log companies work around the clock when they are shiploading.

Dust

As with noise, dust is a natural element of a bulk commodity facility, particularly during the summer. The Port encourages its tenants to actively manage their dust issues in a pro-active manner, such as damping down woodchip stockpiles and maintaining and improving shiploaders to minimise dust leakage. This is an on-going management issue for the Port and its tenants, and is dealt with as required in a sensible and timely manner.

Water run-off

Some parts of the Port have intermittent storm water management issues, leading to the occasional storm water run-off into the harbour. This is a rare occurrence, and the Port has installed water treatment facilities at risk points, but nonetheless it is an issue that the Port actively monitors.

Sand bypass

The Port is obliged to move a minimum of 25,000 cubic metres of sand per year and a total of 150,000 cubic metres over a 3-year period from the water directly off the end of the Main Breakwater. Sand build-up in this area is an on-going problem which the Port manages according to its obligations.

It is important that developments in the broader Portland area (and adjoining areas at Dutton Way) are not such that they impose any limitation on these ongoing sand bypassing operations.

Contamination at the Marine Precinct

The Port Marine Precinct includes slipways of 100 tonnes and 300 tonnes which have been used for many decades to slip local vessels for repairs and defouling. The shallow waters adjacent to the slipways show signs of potential contamination arising from years of nautical antifouling, rust removal and painting activities, accumulating from when the slipways were first built. A range of potential contaminants have been identified, which appear to be of low risk if contained on land or undisturbed in the seabed, but are potentially toxic to marine organisms in the water if the materials are disturbed. Whilst use of these products ceased some time ago, the historical issue remains to be dealt with pending a resolution re the future use of the Marine Precinct.

9.3 Port development environmental approvals requirements

The Port recognises that the Port Planning Overlay ESO5 is an important means of managing its environmental issue, particularly in respect to noise, as it regulates all proposed building development within the overlay area in order to eliminate all building and development activities that could have a detrimental impact on the operations of the Port. The most common uses of the overlay are to ensure that adequate sound-proofing is installed for all house renovations and extensions, and to prevent new housing developments that are too close to Port.

The Port is of the view that the current Planning Overlay does not cover all areas surrounding the port which its sound contours show may be impacted by port operations. It is important that the ESO5 covers all such impacted areas so that future developments and their occupants can be appropriate protected from amenity impacts through the use of the ESO5 controls, and the Port will work with Council to expand the operation of ESO5.

10. Implementation and evaluation

10.1 High level implementation plan for significant port investment

As noted in Section 2, the Port of Portland's Port Development Strategy, and thus its investment programme, will be determined by its outlook for future trade within the Port's catchment area, and its assessment of how best to address the issues that arise from that outlook.

With the likelihood of declining volumes from existing trades and no potential new trades evident, the main focus for the Port will be to consolidate its position as the import and export gateway for western Victoria and the Green Triangle.

The Port will therefore consider significant new infrastructure investment only if there is a material change to the forecast volumes for its existing trades or a viable new trade emerges, and a compelling business case is proven. Otherwise the Port will concentrate on efficiency gains and improvements to enhance the economics of the Port and its customers.

The Port has identified a small number of potential business opportunities within the existing trades in its catchment area, such as the development of the mineral sands deposits in the Donald/Horsham region and the construction of a wood pellet plant within the Green Triangle region. The Port acknowledges that the logistics solutions from plant to port is just one part of what are complex business proposals, and that it is the customers who decide the timing and ultimate fate of their projects and not the Port. The Port will work with these potential customers to assist them in their plans and will consider any investment requirements as those plans develop.

10.2 Implementation of other significant infrastructure investments

The Port and its current and potential new customers are heavily dependent on State and Federal Governments to provide suitably engineered transport infrastructure to enable these vital export trades to prosper. Inefficiencies in transport infrastructure systems lead to distortions in competition and increased export logistics costs, which ultimately lessen the competitiveness of Australian businesses in the wider export markets.

The large increases in Port volumes from FY08 to FY18 were forecast in the August 2009 PLUS[31], and sensible suggestions were made in that document in respect to the provision of quality, efficient and cost-effective transport systems to handle the explosion in transported bulk commodities[32]. Inaction in respect to rail infrastructure by Government has ultimately led to 100% of the 5.6 million tonnes of forestry products and the majority of the 0.4 million tonnes of mineral sands products being transported to the Port by road in FY18. This has resulted in higher transport costs for the exporting companies, higher road maintenance costs for the surrounding councils and a significantly reduced amenity for the residents in the towns and along the transport routes. The issues with road maintenance and local amenity are highlighted by the Port statistic showing that one truck enters the Port every 43 seconds.

[31] Port of Portland – Portland Use Strategy, August 2009, page 43.
[32] Port of Portland – Portland Use Strategy, August 2009, page 59-64.

This concentration of port-related transport onto the road routes has led to significant degradation in the road network. Insufficient resources have been allocated to upgrade or maintain heavy transport routes to cope with the increased usage.

The Port calls on the State and Federal Government to co-operate to implement the major infrastructure projects mentioned in the ***Linkages – road and rail*** elements in Section 2.5 of this PDS, being:

- the upgrade to the Maroona-Portland and Hopetoun lines to 23 TAL;
- the re-establishment of the Mount Gambier-Heywood line at 23 TAL;
- the construction of a common-use rail receival facility to the west of the Cape Nelson Road bridge[33];
- Upgrade the Hopetoun-Murtoa line to 23 TAL;
- Raise the height of the Ring Road bridge at Bridgewater Road;
- Upgrade all road routes into Portland to enable B-double traffic at 100 km/h rating; and
- Consider the construction of an additional rail spur and bulk receival facility along the RB Anderson Road.

Furthermore, the Port calls for State and Federal Governments to allocate additional funding for the maintenance of regional and local roads to allow existing traffic to be safely and effectively managed until alternate rail options become available.

10.3 Proposed PDS monitoring and reporting framework

POPL proposes that each PDS be reviewed at the mid-point of the 5-year PDS cycle.

On this basis, POPL proposes that a formal review of this document be undertaken by 30 June 2021, at which time and preparation of the next PDS can commence.

[33] Port of Portland – Port Land Use Strategy, August 2009, page 60.