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Westport Program Update



Taking a closer look at some of the science, thinking and technical processes behind one of Western Australia's largest ever infrastructure projects.

## Message from the MD

**Following State and Federal funding as part of the 2024-25 Budget, Westport's critical road projects are progressing to the next stage of planning – the definition stage.**

The definition stage includes further design, approvals and capital procurement planning, along with confirming the project's scope, cost and schedule. Ultimately, this stage will position government to make a final investment decision and commence delivery.

Main Roads WA has issued a tender for the provision of consultancy services to define early projects from the Westport Roads Program.

This tender represents an important step towards delivering critical infrastructure to support the construction and initial operations of the new port facilities in Kwinana.

This work will be delivered through an Integrated Planning Team (IPT) arrangement, led by the Office of Major Transport Infrastructure Delivery (OMTID) for Westport.

The IPT will:

- **Complete project definition for upgrading Anketell**

**Road between Leath Road and Kwinana Freeway**, helping to improve access to the Kwinana Industrial Area, facilitate the construction of the port and support eventual operations.

- **Complete project definition for upgrading Kwinana Freeway (Roe Highway to Thomas Road)**, to alleviate existing congestion for commuters and industry and improve connectivity to other freight and logistic facilities north-east of Perth.
- **Progress long-term planning for Anketell Road between Kwinana Freeway and Tonkin Highway in Oakford**, including the amendment of the Perth Metropolitan Region Scheme (MRS) to protect Westport's future freight route.

Pending a Government decision to proceed with Westport in late 2024, it is anticipated that other infrastructure projects under the Westport Program will progress to the definition stage.

I look forward to sharing more information about the future stages of Westport as Government considers the business case.

**Patrick Seares**

Westport Managing Director

## Question: Scalability in design



**How is Westport planning to meet future container volumes over the next 50 years?**

Detailed, independent trade forecasts have been completed to predict container volumes in low, medium and high growth scenarios.

Westport's supply chain design also considered the latest advice on growth patterns in Perth, provided by the Department of Planning, Lands and Heritage, as well as trends on origins and destinations of containers.

Westport's design accommodates anticipated container trade volumes through to 2074. The initial port design caters for the medium growth trade forecast but can scale up to accommodate high trade forecast volumes.

Project definition will continue to make sure the design is scalable with the flexibility to adopt new technologies and innovations, as well as larger ship sizes.



# Resilience - Climate Adaptation Strategy



**As stated in the 2023 Western Australian Climate Adaptation Strategy, “WA is already experiencing the impacts of climate change, including more frequent and severe droughts, heatwaves, high-risk bushfire weather, extreme rainfall events and rising sea levels.”**



To future proof our supply chain and port facilities, which are critical to WA's way of life, Westport has developed a Climate Adaptation Strategy.

Climate adaptation refers to the ability of communities, the environment and economies to continuously adapt to climate change in an efficient, effective, fair and collaborative manner.

The Westport Climate Adaption Strategy will guide Westport to withstand and recover from disruptions associated with climate change and natural hazards. It will also also help ensure the resilience of the terminal and supply chain beyond 2070 (one of the criteria in Westport’s goals).

The Strategy was shaped by investigations and stakeholder engagement. In 2023, Westport invited sustainability experts, emergency services officers, port and supply chain operators, planners and community representatives to a climate change and natural hazards workshop. Participants helped identify and evaluate the climate change and natural hazard variables likely to impact the project and its surrounds, as well as potential treatment options.

## Examples of climate change variables and hazards identified:

Variables	Hazards
 <ul style="list-style-type: none"> <li>• Air temperature</li> <li>• Humidity</li> <li>• Solar radiation / evapotranspiration</li> <li>• Precipitation</li> <li>• Wind, hail, lightning</li> <li>• Sea temperature</li> <li>• Sea level</li> <li>• Ocean pH</li> <li>• Ocean aragonite saturations</li> <li>• Earthquake</li> </ul>	 <ul style="list-style-type: none"> <li>• Extreme temperatures</li> <li>• Heatwaves (land and marine)</li> <li>• Fire (including bushfires)</li> <li>• Drought</li> <li>• Flood</li> <li>• Cyclones/storms</li> <li>• Coastal inundation</li> <li>• Coastal erosion</li> <li>• Acidification</li> <li>• Salination</li> <li>• Modified geomorphology</li> <li>• Modified hydrodynamic/groundwater processes</li> <li>• Ground instability</li> <li>• Structural/physical damage</li> </ul>

Building upon our Climate Adaptation Strategy, treatment options and management actions are being developed to outline the specific activities that will be implemented under different climate scenarios.

The Strategy has been considered as part of Stage 3 design and engineering activities. For example, Westport’s preferred design responds to the threat of rising sea level through suitable quay elevation.

In Stage 4, the Strategy will establish Westport’s approach to climate related risks and be embedded in project development and delivery. It was also be provided to tenderers as part of future procurement processes.



# Westport's interface with HMAS Stirling

We frequently receive questions about the interface between naval and submarine operations with freight vessels in Cockburn Sound.

“Managing interactions between naval and freight vessels is a normal practice in ports around the world,” said Patrick Seares, Westport’s Managing Director.

“This is the day-to-day role of experienced captains, pilots and the Harbourmaster.”

“Freight ships, surface navy vessels, submarines and thousands of smaller recreational vessels have operated safely together for decades through a single channel into Cockburn Sound, which is much smaller than the proposed second channel will be.”

Collins class submarines currently access Garden Island (HMAS Stirling Naval Base) using the existing channel shared with over 850 freight vessels per year that service the Kwinana Industrial Area. This includes bulk cargo vessels transporting alumina, grain and fuel.

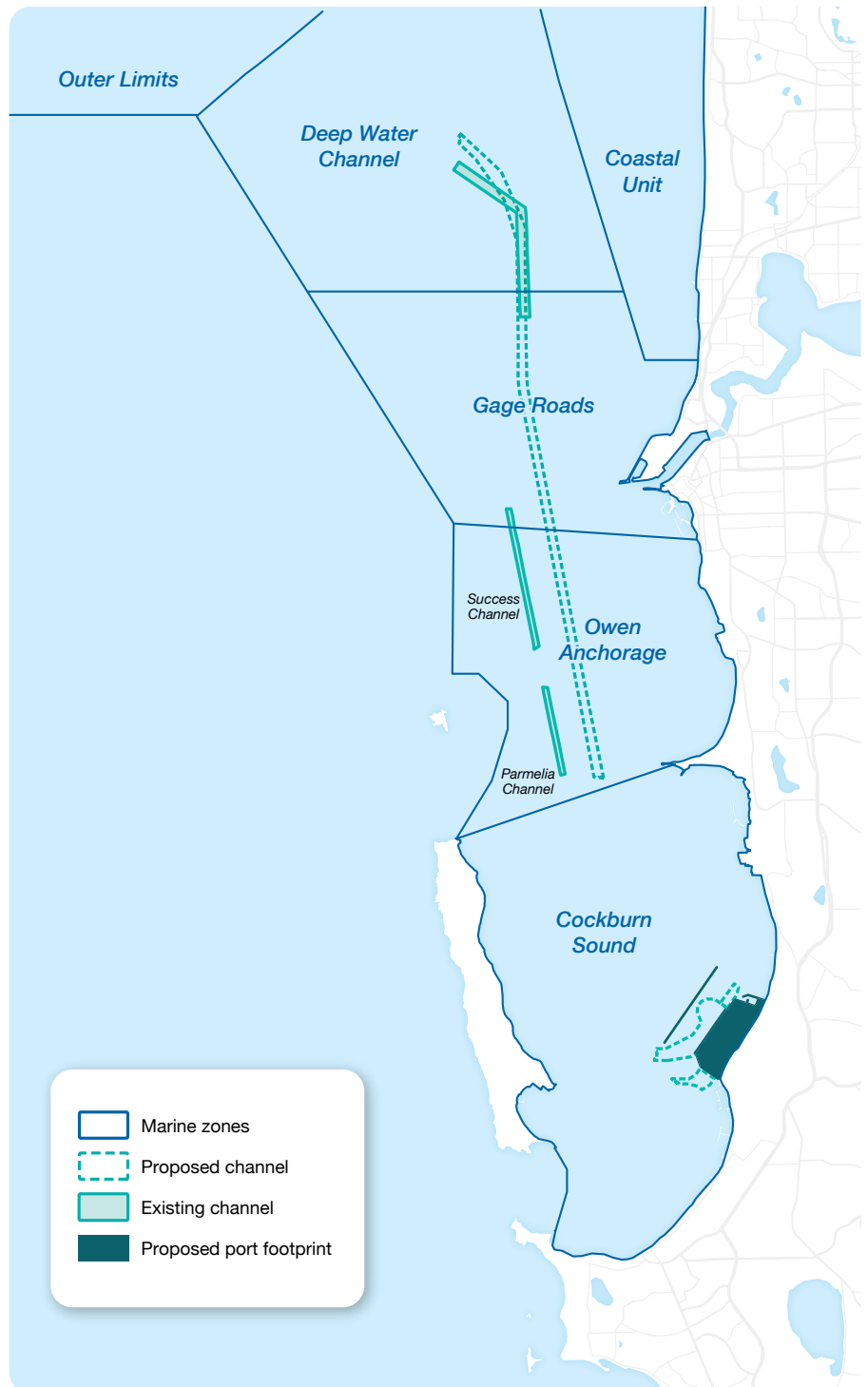
As outlined in Fremantle Ports' 2023 **Annual Report**, 22 million tonnes of freight passed through the Outer Harbour between 2022 and 2023, with exports increasing by more than 20 per cent.

As part of Westport’s preferred design, a new channel will provide additional access options for vessels. The Harbourmaster will manage vessel movements, in close communication with HMAS Stirling officials.

Throughout planning, Westport will continue to consult with Defence West, the Department of Defence and the HMAS Stirling Naval Base.



The Western Trade Coast and Garden Island



Existing channel and proposed channel



## Baseline sediment quality surveys

### WAMSI-Westport Marine Science Program - Project 3.1: Water and sediment quality monitoring

From the 1960s to the early 2000s, nutrient discharges from surrounding industry contributed to a loss of seagrass and ecosystem degradation in Cockburn Sound.<sup>1</sup> Sources of contaminants that impacted water quality included wastewater/sewerage discharge, industrial waste and groundwater.

Since then, there have been notable improvements in water quality and seagrass due to Government, community and industry interventions that diverted and treated some of the major sources of contamination.

With planning for new port facilities progressing, a comprehensive understanding of the sediment quality in Cockburn Sound and Owen Anchorage was needed to better monitor changes during future construction of a new channel and breakwater.

As part of the WAMSI-Westport Marine Science Program, researchers collected and analysed sediment samples from 22 sites in the region for various contaminants, such as metals, hydrocarbons, herbicides and PFAS (various synthetic chemicals), and compared them with environmental quality guidelines.

The survey aimed to establish a sediment quality baseline dataset and compare the data with the environmental quality guidelines for different protection areas.

The study found that none of the sites surveyed exceeded the median or individual concentration limits for any of the target contaminants. Data collected indicated that the sediment quality was generally good, with findings similar to a previous survey undertaken in 2006.

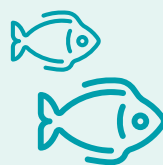
**Findings suggest the sediment contaminant levels were influenced by:**

- **The particle size distribution, with finer sediments having higher concentrations of metals and metalloids.**
- **The proximity to industrial and maritime activities, such as the Kwinana Bulk Jetty and Careening Bay.**

This report provides an initial understanding of current sediment contamination in the Sound and what to expect when sediment is disturbed during development, as well as a baseline for monitoring sediment quality into the future.

Our improved understanding of sediment contamination will inform planning activities, to help us support the long-term health of Cockburn Sound.

Read the full report **here** or **view** our new Science Reports webpage.



## Understanding invasive species in our marine systems

### WAMSI-Westport Marine Science Program - Project 4.7: Marine invasive species literature review.

The introduction of invasive species into marine areas is a worldwide issue, often resulting from shipping activities with the species catching a ride.

Modern inspection and quarantine procedures are in place across Australia's port network to reduce the chance of new species being introduced. Many invasive species are relatively harmless, but some can cause damage through displacing native species and changing the ecology of the system.

With the proposed development of new port facilities in the Kwinana Outer Harbour progressing, researchers reviewed the literature on current marine invasive species in Western Australia to identify the potential risks to Cockburn Sound above-and-beyond those already existing from the substantial shipping and other vessel use in this area.

This literature review forms part of the WAMSI-Westport Marine Science Program. It considered the knowledge of invasive marine species in other ports across WA, including Fremantle, and reviewed options to reduce risks.

**Findings included:**

- **There are around 80 species listed as being of potential concern for Australian waters.**
- **The Fremantle marine region that has served as the primary shipping port since 1897 (including Cottesloe to Cockburn Sound and the Swan River) had the greatest number of introduced marine species, with 46 reported species in the area.**
- **27 introduced marine species have been reported in Cockburn Sound and all 46 known regionally may already be established in Cockburn Sound and/or Owen Anchorage.**

This report will be used to increase understanding and awareness of the potential risks of invasive marine species in Cockburn Sound during construction and operations. It will help inform risk management measures, such as vessel inspections, quarantine and cleaning procedures already undertaken by the Department of Primary Industries and Regional Development. The report will also support considerations around increasing biological diversity in the area, to reduce the risk of invasive species establishing themselves in Cockburn Sound and Owen Anchorage.

Read the full report **here**.



Westport staff talking to a community member at Coogee Live

## Engaging with the local community

**Stage 3 saw a huge amount of engagement with key stakeholders including supply chain operators, local government and Kwinana industry to develop a future container supply chain optimised to achieve Westport's goals.**

We've also been working closely with the local community to share information on the preferred design, answer questions and understand what's important to them.

The Westport team has been engaging with Kwinana, Cockburn and Rockingham communities with multiple events at popular locations over the last few months.

Since the beginning of the year we've attended Kwinana Marketplace, Coogee Live, Rockingham Centre, Cockburn Gateway, the Cockburn Power Boats Club, Coogee Shopping Centre and the Local Farmers Market in Wandii.

It has been great to see local interest in the project and for our team to get a better understanding of the topics and issues most important to the community. The health of Cockburn Sound, roads planning and delivery timelines are common topics of interest in the local area. In addition to in-person events, we are also seeking to address important community topics and issues through our **community newsletter** and **community webinar** series.



Westport staff talking with the community at Rockingham Centre

To learn more about upcoming community events and share the information with your networks **visit our website.**