

Westport Seagrass Planning and Management



Avoid | Minimise | Restore

April 2024

The importance of seagrass

Seagrass is the underwater equivalent of a forest. Growing in 'meadows', seagrass is critical to the underwater eco-system, providing habitat for fish, improving water quality and storing carbon. Healthy seagrass is essential for healthy oceans.

Seagrass in WA

Seagrass habitats can be found all along the coast of WA, with significant seagrass communities in Shark Bay, Cockburn Sound, Geographe Bay and the South Coast.

The seagrass habitat of Cockburn Sound experienced significant losses from the 1950s to the 1990s due to a notable increase in nutrients and pollutants from industrial activities in and around Kwinana. Since then there have been concerted and widespread efforts to improve water quality in Cockburn Sound, and active restoration of seagrass habitat.

Westport and seagrass

Westport's proposed design for the new port and marine infrastructure at Kwinana covers four different marine zones including Cockburn Sound, Owen Anchorage, Gage Roads and the Deep Water Channel near Fremantle. There are areas of seagrass in all four zones.

Westport has actively worked to avoid and minimise impacts to seagrass in its proposed marine infrastructure, which is currently being assessed by the Environmental Protection Authority.

These strategies include:



Avoiding seagrass habitat

where possible through the port design process. Extensive benthic habitat mapping produced through the WAMSI Westport Marine Science Program to shift the breakwater and port footprint away from existing seagrass meadows.



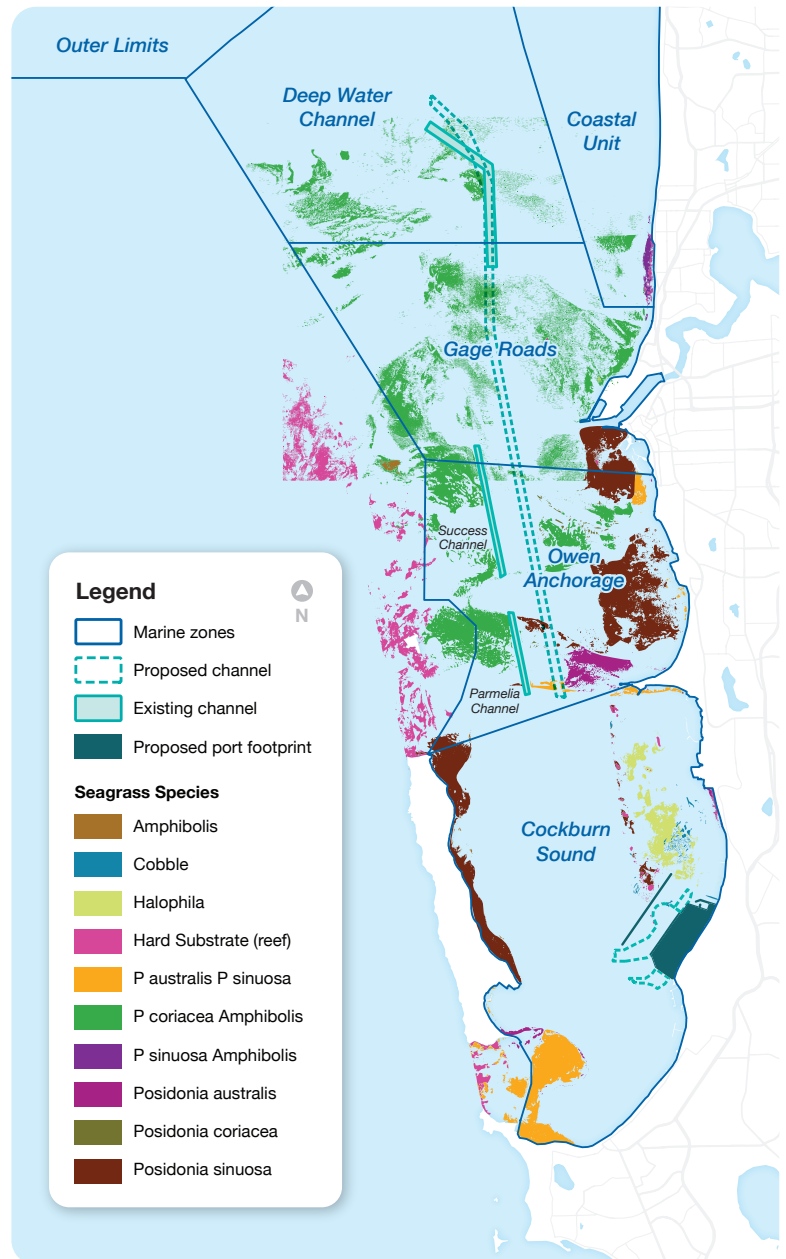
Minimising and managing impacts to seagrass

during port development. This will include water quality monitoring during dredging to maintain conditions for healthy seagrass.



Restoring seagrass

before and after development to support habitats. This activity will aim to significantly increase overall seagrass habitat in Cockburn Sound, improving on the current, pre-development status.



Projected seagrass impacts from the port development

The port footprint avoids existing seagrass meadows in Cockburn Sound.

The channel footprint, which runs through Gage Roads, Owen Anchorage and the Deep Water Channel, will impact 1.5% of the total seagrass across those three marine zones.

As part of the \$13.5million WAMSI Westport Marine Science Program, studies are underway to map the benthic habitat, including seagrass, across the four marine zones. This research is providing us with the best understanding we've ever had of the seagrass communities along this stretch of coastline.

Marine Zone	Extent ha	Direct loss	
		ha	%
Deep Water Channel	386.0	12.5	3.2
Gage Roads	1,232.0	27.8	2.3
Owen Anchorage	1,619.0	18.3	1.1
Cockburn Sound	795.0	-	0.0
Total	4,032.0	58.6	1.5



Further minimisation through planned dredging activities

Seagrass can be impacted by dredging. For example, activities like dredging cause sedimentation to be stirred up, resulting in a reduction in sunlight reaching the seafloor.

Through the WAMSI Westport Marine Science Program, research has been undertaken to better understand the thresholds for healthy seagrass. This is informing minimisation and mitigation strategies for the Westport dredging program, such as staging dredging and water quality monitoring to maintain minimum requirements.



Seagrass and snapper

Seagrass beds are critical habitat for many fish species. In Cockburn Sound this includes snapper, whiting and blue swimmer crabs.

The port infrastructure in Cockburn Sound will avoid these seagrass beds. Minimisation strategies, like potential dredging shutdowns during key spawning seasons, will further protect the eco-system for marine species in the Sound.



Seagrass mapping and restoration

Over the years, more than 100 seagrass restoration programs have been undertaken to restore seagrass habitat. One of the marine research projects assessed all of these different restoration programs to understand what methods and approaches worked, and what didn't. These learnings about best practice seagrass restoration will underpin a significant expansion of restoration programs in the future.

Find out more

Learn more about the science informing Westport's design, planning and development activities on our website www.westport.wa.gov.au.

An environmental impact assessment is currently underway on Westport's proposed marine infrastructure. To get more information go to <https://westport.wa.gov.au/environment/environmental-impact-assessment/>

