Department of **Water and Environmental Regulation**
Department of **Primary Industries and Regional Development**
GOVERNMENT OF WESTERN AUSTRALIA

HEALTHY ESTUARIES WA

Seagrass snapshot: Leschenault Estuary 2021–22

Through the Healthy Estuaries WA program, the condition and area of seagrass is being monitored in five South West estuaries, including Leschenault Estuary. This snapshot provides an update of the distribution of seagrass in the Leschenault Estuary in February 2022.

It updates information from previous years available at estuaries.dwer.wa.gov.au/seagrass.

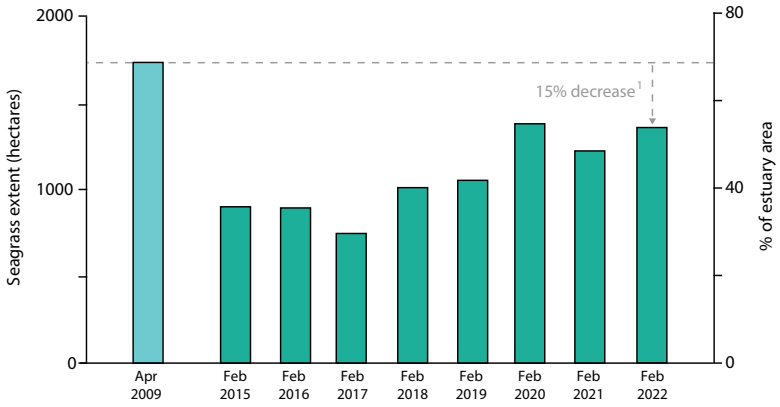
Understanding seagrass condition helps to guide how we manage our estuaries

The Leschenault Estuary is a long, shallow coastal lagoon, north of Bunbury. The estuary is permanently open to the ocean because of an artificial channel called The Cut. Seagrass meadows are a vital component of the estuary ecosystem, as they provide food and habitat for animals and produce oxygen. Yet over the years seagrass has been lost. This is likely because of changes in the catchment that affect water quality, as well as climate change.

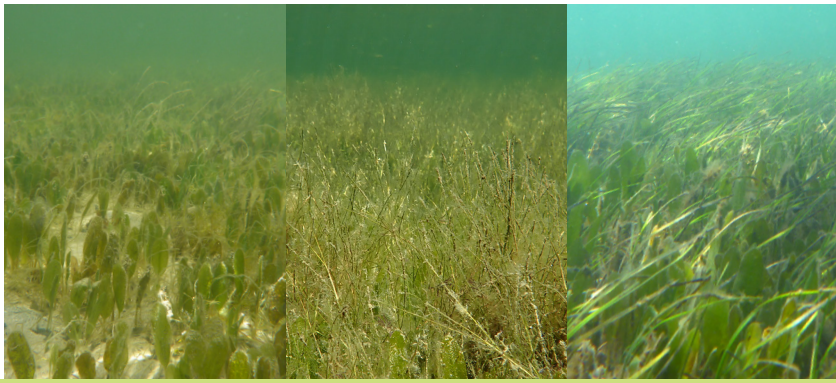
Three species of seagrass occur in the Leschenault Estuary. *Halophila ovalis* (left image below) is dominant and is generally found throughout the estuary basin. *Ruppia megacarpa* (centre image) is often observed along the eastern shoreline. *Zostera muelleri* (right image below) is found near The Cut, where the waters are more marine.

Seagrass over time

- Seagrass has historically been widely distributed in the estuary and only absent in a small area of the central basin.
- In April 2009, seagrass covered 1,741 hectares of the estuary – about 69 per cent of the estuary area.
- By 2014, there was a substantial loss of seagrass, which prompted monitoring to start in 2015.
- Seagrass is slowly recovering but is yet to return to the extent reached in 2009.[1]



The Department of Water and Environmental Regulation (the department) has monitored seagrass annually from 2015 to 2022. Seagrass distribution was estimated to cover 37 per cent of the estuary area in 2015, and this has increased to nearly 50 per cent in recent years. Additionally, in 2020, seagrass had begun to recolonise the northern estuary, which has not been observed since 2009.



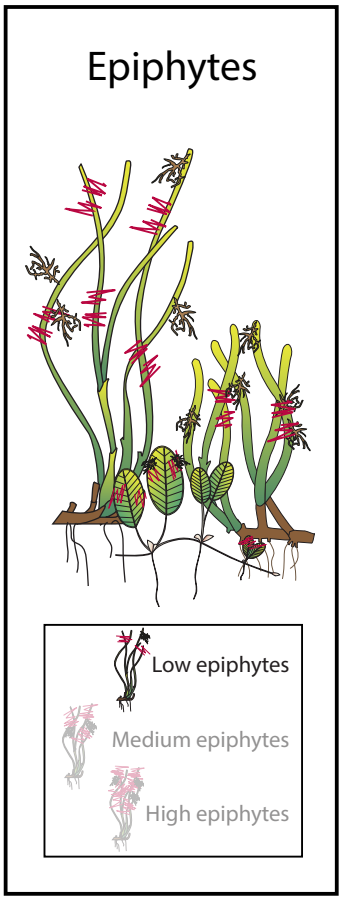
[1] Expressed as seagrass area as a percentage of estuary area.

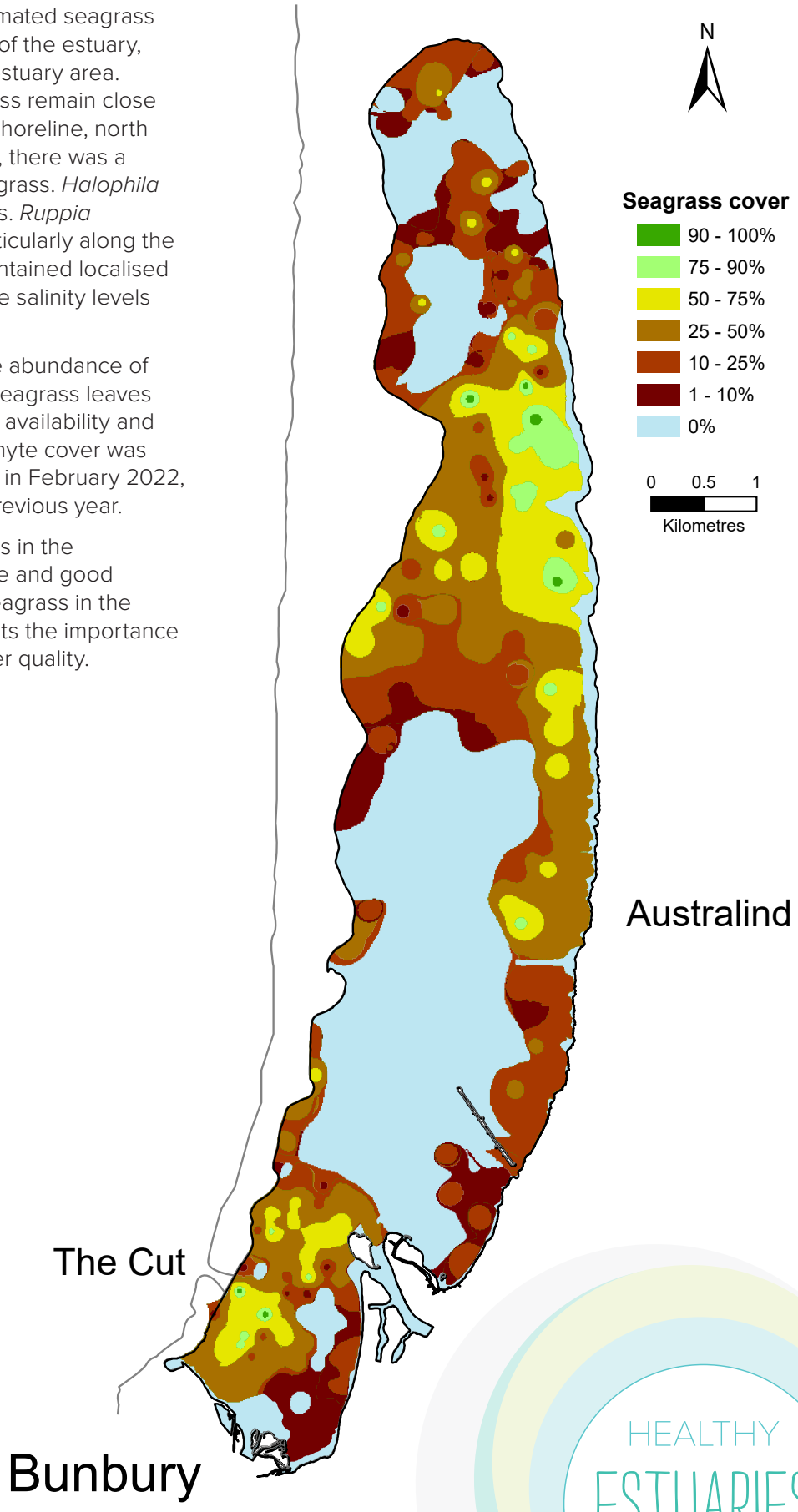
Seagrass distribution in February 2022

In early 2022, the department estimated seagrass was spread across 1,362 hectares of the estuary, which is about 54 per cent of the estuary area. The areas with the densest seagrass remain close to The Cut and along the eastern shoreline, north of Australind. Compared with 2021, there was a slight increase in the extent of seagrass. *Halophila* remains the most dominant species. *Ruppia* continues to expand its range, particularly along the eastern shoreline. *Zostera* has maintained localised distribution close to The Cut, where salinity levels are more stable.

The department also observed the abundance of small organisms that grow on the seagrass leaves (epiphytes), which can reduce light availability and impact seagrass growth. The epiphyte cover was low on average across the estuary in February 2022, compared with high cover in the previous year.

Overall, in February 2022, seagrass in the Leschenault Estuary was in a stable and good condition. However, recovery of seagrass in the northern basin is slow and highlights the importance of continuing work to improve water quality.





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