



Binjareb Boodja  
**Landscapes**  
2025

Appendix

*Coastal and Nearshore  
Snapshot*

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## Appendix H: Coastal and Nearshore Snapshot

The purpose of this appendix is to provide a broad overview of the coastal and nearshore natural resources and related management issues for the Peel-Harvey Region. It largely draws on the Draft Peel-Harvey NRM Plan (Land Assessment, 2005) and Science Strategy for the Peel-Harvey Estuary (Rogers, Hall & Valesini, 2010). The appendix does not specifically cover the Peel-Yalgorup Ramsar System. Readers are encouraged to refer to the Peel-Yalgorup Ramsar Site Management Plan (PHCC, 2009) and related documents for further information on the Ramsar Site and its management.

### Coastal environments

The Region's coastal environments, including beaches, estuarine areas, coastal wetlands and foreshores, are a major drawcard for residents and tourists. Most of the Region's population of 158,000 reside within 5 kilometres of the coast and this has a significant bearing on NRM, including management of coastal areas and the Peel-Yalgorup Ramsar System. The Region includes 83 km of coastline, including the Yalgorup National Park, the Dawesville Cut and mouth of the Peel Inlet.

The following description of the coastal landforms and processes and coastal biodiversity relevant to the Region is taken from Land Assessment (2005).

*"In this portion of Western Australia the coastline is formed by the littoral drift of sand carried northward by currents originating in the roaring forties. A seasonal pattern of accretion and erosion forms a natural cycle whereby sand is deposited on shore in summer leading to a build-up of dune systems, while in winter storms the sand is washed off shore. Where there are extensive reef systems, such as in the Halls Head area, winter erosion is less severe.*

*Dune systems are characterised by an often mobile primary fore-dune and a series of secondary 'nested parabolic' dunes. Vegetation of coastal dune systems is highly specialised for survival in a low water, low nutrient, wind blown and salty environment. Continued coverage of vegetation, particularly of colonising fore-dune species, is critical for dune stability."*

### Coastal Biodiversity

Much of the coastal and estuarine foreshores in the Region have been protected in a near-natural state, especially within the Yalgorup National Park and a number of smaller conservation reserves and enclaves of private land. The *Yalgorup Coastal Lakes including Lakes Clifton and Preston, and other coastal wetlands are of high importance for their biodiversity values and are included in the Peel-Yalgorup Ramsar System. The thrombolites of Lake Clifton are but one internationally significant biodiversity feature of these coastal areas.*

Other threatened or potentially threatened coastal flora and fauna within the catchment include: microbial mat communities within Pamelup pond and Lake Preston, the Hooded plover (near threatened), and the Red-tailed tropicbird (at its southern extremity) (Land Assessment, 2005).

Estuarine salt-marshes are a feature of the coastal landscape and Peel-Harvey Estuary and are threatened by inappropriate development, uncontrolled access and changes in hydrology (such as related to the Dawesville Cut). These natural areas are important for:

- Maintenance of the physical stability of the Estuary and waterways;
- *feeding and nesting for a rich array of wading and migratory birds,*
- *export plant and animal material into the estuary providing food for fish and crustaceans.*

Other threatened or potentially threatened coastal ecological communities include areas of:

- *Samphire Glasswort Low Open Heath*
- *Saltwater Paperbark Low Forest*
- *Swamp Paperbark - Saltwater Paperbark Low Open Forest*
- *Flooded Gum - Swamp Paperbark Woodland*
- *Twig Rush Sedgeland*
- *Shore Rush Closed Rushland*
- *Swamp Sheoak - Flooded Gum Low woodland*

(Land Assessment, 2005)

## **Fish and aquatic macro-invertebrates**

The following is taken from the Science Strategy for the Peel-Harvey Estuary (Rogers, Hall & Valesini, 2010). It is provided to illustrate the Region's biodiversity and some of the relevant management issues.

*"About sixty species of fish and larger crustaceans have been recorded for the Peel-Harvey Estuary (Brearley, 2005). Most are marine species, such as the popular Blue Swimmer Crab, King Prawn, Yellow-eye Mullet, Sea Mullet, Yellow-finned, School, Trumpeter and King George Whiting, Tailor and Mulloway, which spend most of their juvenile stages in the estuary. Others such as Estuarine Cobbler, Yellowtail Grunter and School Prawn, are true estuarine species, spending their entire life cycle in the estuary. Both River Prawn and Cobbler populations have practically disappeared, probably due to a general decline in estuarine and river health and, perhaps for the latter species, also excessive fishing pressure.*

*Commercial fishing in the estuary has continued to decline both in tonnage of fish caught and numbers of active fishermen due, in part, to an active government program to reduce the number of commercial fishers in the estuary. Today, there are less than a dozen or so licensed commercial fishermen actively earning a living from the estuary, taking approximately 94 tonnes of fish and 85 tonnes of crabs in 2008. In contrast, recreational fishing has grown enormously over the decades, and is an important tourist activity and focal point in attracting new residents to Mandurah and adjoining areas. Blue Swimmer crabs have become "iconic" to Mandurah as a festival tourist attraction. The fishing pressure in the Peel-Harvey Estuary is now so great that much needed seasonal fishing controls and tighter limits on catches by commercial and recreational fishers have become essential elements of fisheries management and research by the Western Australian Department of Fisheries. Without adequate management, the crab stocks and some fish species in the estuary will become, and, in some instances, have already become, overfished. Tighter controls will be critical for sustainability into the future.*

*With more people living in the area and forecast growth in residential developments, the numbers of recreational fishers in the estuary will continue to increase, exerting additional fishing pressure on fish stocks. At some point in time, it seems likely that the number of fishers will substantially impact on, and possibly already has impacted on, the quality of recreational fishing, thereby invoking a real need to limit total catches of key species to ensure sustainability." (Rogers, Hall and Valesini, 2010).*

## **Coastal land use**

The social and economic values of the Region's coastal environments are significant. People prefer to live near the coast, beaches and water bodies because of the recreational, lifestyle and landscape opportunities these natural places provide. Indicatively, the economic value of the Peel-Harvey Estuary and waterways is conservatively estimated at \$361 million per annum, and possibly over \$1 billion pa (Economic Consulting Services, 2008).

Urban populations near significant natural assets provide both opportunities and risks for NRM. The opportunities include the potential to generate funds for NRM and people willing to participate in coastcare

groups. The risks, all manageable with sufficient resources, include high levels of recreational pressure, inappropriate development and lack of knowledge to inform management practices.

## **Coastal management**

Management of coastlines, beaches and coastal and estuarine foreshores in the Regions rests with the Department of Parks and Wildlife, local governments and a small number of private landholders. Most coastal public reserves, including the Yalgorup National Park and local foreshore reserves, have formal, publicly available management plans (Department of Planning, undated). The Department of Transport has responsibility for management of boating, while the Department of Fisheries manages commercial and recreational fishing.

There is a strong and growing awareness amongst communities of the south west of WA, particularly local governments, of the importance of managing coastal areas for impacts of climate change. Coastal areas of the south west of Western Australia have been identified as the most vulnerable in the state to inundation and coastal erosion as a result of climate change (Peron Naturaliste Partnership, 2013).

The Peron Naturaliste Partnership, involving all of the local governments of the south west of WA, including Mandurah, Murray, Waroona and Harvey, is a project specifically established to prepare coastal communities for the risks and opportunities that are arising from climate change

## **References used in Appendix H**

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