



Binjareb Boodja  
**Landscapes**  
2025

Appendix

*Regional Natural Assets  
Register*

**D**



## APPENDIX D: Peel-Harvey Regional Natural Assets Register

This listing of major natural assets in the Peel-Harvey Region is presented as follows:

1. Terrestrial Biodiversity
2. Aquatic Biodiversity
3. Water Resources
4. Agricultural Land
5. Coasts and Near-shore Environments
6. NRM Based Cultural Heritage

Only high level descriptions of natural assets are included in the table below. Specific details of sites, locations, ecological communities, species, and local level assets are not included and are being gathered through separate processes by the Peel-Harvey Catchment Council.

References used in this Appendix:

### 1. Terrestrial Biodiversity

Gibson N, Keighery BJ, Keighery GJ, Burbidge AH & Lyons MN (1994) *A Floristic Survey of the Southern Swan Coastal Plain*. Unpublished Report for the Australian Heritage Commission, prepared by the Department of CALM and the Conservation Council of WA (Inc.) CALM,

Hedde E, Loneragan O & Havel J (1980) *Vegetation of the Darling System*. In: Department of Conservation and Environment 1980 Atlas of Natural Resources, Darling System, Western Australia, DCE, Perth, Western Australia.

Tuart Response Group and Ecoscape (2003) *An Atlas of Tuart Woodlands on the Swan Coastal Plain in WA*.

### 2. Aquatic Biodiversity

Hale, J. and Butcher, R. (2007), *Ecological Character Description of the Peel-Yalgurup Ramsar Site*, Report to the Department of Environment and Conservation and the Peel-Harvey Catchment Council, Perth, Western Australia.

Hill A, Semeniuk C, Semeniuk V & Del Marco A (1996) *Wetlands of the Swan Coastal Plain, Volumes 2a & b*, Water Authority of Western Australia, Perth, Western Australia.

WAWRC (1991) *Safeguarding our Water Resources: Perth Bunbury Draft Regional Water Resources Allocation Plan*, State Water Planning, Publication No. 5/91.

### 3. Water Resources

Land Assessment Pty Ltd (2005) *Peel-Harvey Catchment Natural resource management Plan*, A report by Land Assessment Pty Ltd for Peel-Harvey Catchment Council, March 2005, Mandurah.

### 4. Agricultural Land

Department of Agriculture WA (2001) *Soil-landscape Systems Mapping Version 3*, In: Land Assessment Pty Ltd (2005) Peel-Harvey Catchment Natural resource management Plan, A report by Land Assessment Pty Ltd for Peel-Harvey Catchment Council, March 2005, Mandurah.

### 5. Coasts and Near-shore Environments

South West Catchments Council (2012) *South West Regional NRM Strategy*, SWCC, Bunbury, Western Australia.

### 6. NRM Based Cultural Heritage

O'Connor R, Quartermaine G & Bodney C (1989) *Aboriginal Significance of Rivers and Wetlands of the Perth to Bunbury Region*, WA Water Resources Council, Perth, Western Australia.

# 1. TERRESTRIAL BIODIVERSITY – major natural assets

MAJOR ASSET	SUB ASSET	ASSET DESCRIPTION	THREATS
<b>1A</b> Swan Coastal Plain (SWA2 Subregion) – ecosystems and natural areas	All occurrences of vegetation complexes as described by Heddlé <i>et al</i> (1980), including the fauna habitat and fauna. Vegetation complexes are described within the major geomorphic units: <ul style="list-style-type: none"> <li>• Quindalup and Spearwood Dune System</li> <li>• Bassendean Dune System</li> <li>• Pinjarra Plain</li> <li>• Foothills</li> </ul>	Includes: <ul style="list-style-type: none"> <li>• All natural areas and native vegetation occurrences</li> <li>• All fauna habitat</li> <li>• All fauna and flora species and genetic diversity</li> <li>• Significant (rare and threatened) species and ecological communities</li> <li>• All floristic community types as identified in Gibson <i>et al</i> (1994)</li> <li>• Bush Forever &amp; Swan Bioplan (Peel Sector) Sites</li> </ul>	<ul style="list-style-type: none"> <li>• poorly planned development</li> <li>• native vegetation clearing</li> <li>• weeds &amp; invasive species</li> <li>• altered fire regimes</li> <li>• feral animals</li> <li>• grazing</li> <li>• climate impacts</li> <li>• recreational impacts</li> <li>• pathogens (phytotophthora)</li> <li>• fragmentation &amp; isolation</li> </ul>
<b>1B</b> Jarrah Forest (JF1 Subregion) – ecosystems and natural areas	Major vegetation units as described in Beard (1990) including habitats and fauna: <ul style="list-style-type: none"> <li>• Marri-Wandoo Woodlands</li> <li>• Jarrah Forest – Lateritic Plateau</li> <li>• Rock outcrops</li> </ul>	Includes: <ul style="list-style-type: none"> <li>• All natural areas and native vegetation occurrences</li> <li>• All fauna habitat</li> <li>• All fauna and flora species and genetic diversity</li> <li>• Significant (rare and threatened) species and ecological communities</li> </ul>	<ul style="list-style-type: none"> <li>• altered fire regimes</li> <li>• climate impacts (drought)</li> <li>• feral animals</li> <li>• pathogens (phytotophthora)</li> <li>• recreational impacts</li> <li>• mining</li> <li>• logging</li> </ul>
<b>1C</b> Avon Wheatbelt (AW2 Subregion) – ecosystems and natural areas	Major vegetation units as described in Beard (1990) including habitats and fauna: <ul style="list-style-type: none"> <li>• York Gum woodlands</li> <li>• Scrub heath on sandplains</li> <li>• Acacia - Casuarina thickets on ironstone gravels</li> <li>• Halophytes on saline soils</li> </ul>	Includes: <ul style="list-style-type: none"> <li>• All natural areas and native vegetation occurrences</li> <li>• All fauna habitat</li> <li>• All fauna and flora species and genetic diversity</li> <li>• Significant (rare and threatened) species and ecological communities</li> </ul>	<ul style="list-style-type: none"> <li>• weeds and invasive spp</li> <li>• altered fire regimes</li> <li>• climate impacts (drought)</li> <li>• feral animals</li> <li>• fragmentation and isolation</li> <li>• salinity.</li> </ul>

## 2. AQUATIC BIODIVERSITY – major natural assets

MAJOR ASSET	SUB ASSET	ASSET DESCRIPTION	THREATS
2A <b>Peel-Harvey Estuarine System</b>	<ul style="list-style-type: none"> <li>• Peel – Harvey Estuary (Water body)</li> <li>• Foreshore and riparian habitats, exposed mudflats and transitional zones</li> </ul>	<p>Includes:</p> <ul style="list-style-type: none"> <li>• all natural areas and fauna habitat</li> <li>• all fauna and flora species and genetic diversity</li> <li>• significant (rare and threatened) species and ecological communities.</li> </ul>	<ul style="list-style-type: none"> <li>• declining water quality: eutrophication &amp; organic matter</li> <li>• physical disturbance of seagrass beds, sediment and benthic layers</li> <li>• sediment accumulation</li> <li>• hydrocarbons &amp; heavy metals</li> <li>• lack of co-ordinated management</li> <li>• poorly planned development</li> <li>• recreational impacts</li> <li>• impacts of climate change – sea level rise</li> </ul>
2B <b>Wetlands</b>	<ul style="list-style-type: none"> <li>• Wetlands of the Peel-Yalgorup Ramsar Site</li> <li>• All other lakes, sumplands and damplands</li> <li>• All palusplains</li> </ul>	<p>Includes:</p> <ul style="list-style-type: none"> <li>• all areas of open water, seasonal inundation and waterlogging associated with the wetlands</li> <li>• all habitats including those within buffers</li> <li>• all fauna and flora species and genetic diversity</li> <li>• significant (rare and threatened) species and ecological communities.</li> </ul>	<ul style="list-style-type: none"> <li>• water quality</li> <li>• loss of riparian zone/buffers</li> <li>• eutrophication &amp; sedimentation (organic sediment)</li> <li>• altered water regimes – climate impacts</li> <li>• acidification</li> <li>• poorly planned development</li> <li>• weeds and feral animals</li> </ul>

## 2. AQUATIC BIODIVERSITY – major natural assets

MAJOR ASSET	SUB ASSET	ASSET DESCRIPTION	THREATS
<p>2C  <b>River, creek and drainage systems (including floodplains &amp; coastal plain arterial drainage systems)</b></p>	<p>Rivers, creeks and drains of the:</p> <ul style="list-style-type: none"> <li>• Serpentine River catchment</li> <li>• Murray River Catchment,</li> <li>• Hotham and Williams Rivers</li> <li>• North and South Dandalup Rivers</li> <li>• Harvey River</li> <li>• Gazetted Drainage Districts</li> </ul>	<p>Includes:</p> <ul style="list-style-type: none"> <li>• all watercourse channels, bed, banks and riverpools</li> <li>• associated floodplains and other habitat</li> <li>• all fauna and flora species and genetic diversity</li> <li>• significant (rare and threatened) species and ecological communities</li> </ul>	<ul style="list-style-type: none"> <li>• water quality</li> <li>• loss of riparian zone</li> <li>• grazing</li> <li>• fire regimes</li> <li>• eutrophication</li> <li>• sedimentation</li> <li>• erosion</li> <li>• organic sediment</li> <li>• reduction in flow – climate impacts.</li> <li>• poorly planned development</li> </ul>

## 3. WATER RESOURCES

MAJOR ASSET	SUB ASSET	ASSET DESCRIPTION	THREATS
3A <b>Surface water resources</b>	Public surface water supply areas gazetted as Catchment Areas (CA) and Water Reserves (WR)	Includes: <ul style="list-style-type: none"> <li>• Wungong Brook Catchment Area</li> <li>• Serpentine Dam and Catchment Area</li> <li>• North Dandalup Pipehead Dam Catchment Area</li> <li>• South Dandalup Dam Catchment Area</li> <li>• Dwellingup Catchment Area</li> <li>• Boddington Dam Catchment Area</li> <li>• Stirling Dam Catchment Area</li> <li>• Harvey Dam Catchment Area</li> </ul>	<ul style="list-style-type: none"> <li>• altered fire regimes</li> <li>• weeds and invasive spp</li> <li>• feral animals</li> <li>• climate impacts</li> <li>• contamination</li> </ul>
	Private surface water supplies	Includes: <ul style="list-style-type: none"> <li>• dams on and off-watercourses,</li> <li>• stock watering points</li> </ul>	<ul style="list-style-type: none"> <li>• over-exploitation of resource</li> <li>• climate impacts</li> <li>• contamination</li> <li>• inefficient use of water resources</li> <li>• sedimentation and erosion</li> </ul>
	Gazetted and non-gazetted coastal plain drainage systems	Includes: <ul style="list-style-type: none"> <li>• Mundijong Drainage District</li> <li>• Waroona Drainage District</li> <li>• Harvey Drainage District</li> </ul>	<ul style="list-style-type: none"> <li>• water quality</li> <li>• organic matter and sediments</li> <li>• weeds</li> <li>• physical disturbance</li> <li>• contamination</li> </ul>

### 3. WATER RESOURCES

MAJOR ASSET	SUB ASSET	ASSET DESCRIPTION	THREATS
3B Groundwater resources	Public groundwater supply areas	Includes: <ul style="list-style-type: none"> <li>existing groundwater supply Jandakot UWPCA</li> <li>proposed groundwater supply areas (Karnup – Dandalup UWPCA and Reserve)</li> </ul>	<ul style="list-style-type: none"> <li>over-exploitation of resource</li> <li>climate impacts</li> <li>contamination</li> <li>inefficient use of water resources</li> </ul>
	Commercial and private groundwater use	Includes: <ul style="list-style-type: none"> <li>licenced groundwater users</li> <li>unlicenced users</li> </ul>	<ul style="list-style-type: none"> <li>over-exploitation of resource</li> <li>climate impacts</li> <li>contamination</li> <li>inefficient use of water resources</li> </ul>



## 4. AGRICULTURAL LAND



MAJOR ASSET	SUB ASSET	ASSET DESCRIPTION	THREATS
4A Swan Coastal Plain	Coastal Zone	Includes: soil – landscape systems: Quindalup South, Spearwood & Vasse	<ul style="list-style-type: none"> <li>• wind erosion</li> <li>• biosecurity</li> </ul>
	Bassendean Zone	Includes: soil – landscape systems: Bassendean	<ul style="list-style-type: none"> <li>• wind erosion</li> <li>• soil acidification</li> <li>• nutrient loss</li> <li>• loss of carbon</li> </ul>
	Pinjarra Zone	Includes: soil – landscape systems: Forrestfield, Pinjarra	<ul style="list-style-type: none"> <li>• land salinity</li> <li>• acidification</li> <li>• loss of carbon</li> <li>• nutrient loss</li> <li>• erosion</li> </ul>
4B Darling Plateau	Western Darling Range	Includes: soil – landscape systems: Darling Plateau, Lowden Valleys, Murray Valleys	<ul style="list-style-type: none"> <li>• contamination</li> <li>• land clearing</li> </ul>
	Eastern Darling Range	Includes: soil – landscape systems: Eulin Uplands, Marradong Uplands, Quindanning & Wundowie	<ul style="list-style-type: none"> <li>• water erosion</li> <li>• salinity</li> <li>• soil structure decline</li> <li>• compactions loss of soil carbon</li> </ul>
	Southern Zone of Rejuvenated Drainage	Includes: soil – landscape systems: Delyanine, Dryandra, Narrogin, Pumphrey's Bridge and Pingelly	<ul style="list-style-type: none"> <li>• wind and water erosion</li> <li>• soil structure decline</li> <li>• compaction and water repellence</li> <li>• salinity</li> <li>• loss of organic carbon</li> <li>• biosecurity</li> </ul>



## 5. COASTS AND NEARSHORE ENVIRONMENTS

MAJOR ASSET	SUB ASSET	ASSET DESCRIPTION	THREATS
5A Foreshore landforms	Foreshores, dunes, beaches, rock outcrops	Includes 83 km of foreshores and beaches in the Region	<ul style="list-style-type: none"> <li>recreational impacts of foreshore and near shore environment</li> <li>poorly planned developments</li> <li>erosion</li> <li>climate impacts (rising sea levels)</li> <li>weeds</li> <li>litter</li> </ul>
5B Habitats	Foreshore and nearshore habitats and fauna	Includes habitats for significant wildlife and fish identified in SWCC (2012) such as: <ul style="list-style-type: none"> <li>Little Penguin</li> <li>West Coast rock lobster</li> <li>Dolphins</li> <li>NZ fur seals</li> <li>cormorants</li> <li>marine raptors</li> <li>migratory birds</li> <li>pelicans</li> <li>tern species</li> <li>hooded plover</li> <li>abalone</li> <li>West Coast demersal scalefish</li> <li>all marine fish stocks</li> <li>tailor</li> </ul>	<ul style="list-style-type: none"> <li>recreational impacts of foreshore and near shore environment</li> <li>poorly planned developments</li> <li>erosion</li> <li>climate impacts (rising sea levels)</li> <li>weeds</li> <li>litter</li> </ul>

## 6. NRM-BASED CULTURAL HERITAGE

MAJOR ASSET	SUB ASSET	ASSET DESCRIPTION	THREATS
<p><b>6A</b> Places of Significance to Aboriginal People</p>	<p>Registered sites or archeological and ethnographic significance</p>	<p>All sites of archaeological and ethnographic importance registered under the Aboriginal Heritage Act 1972</p>	<ul style="list-style-type: none"> <li>Physical disturbance</li> <li>Loss of knowledge</li> <li>Lack of maintenance</li> </ul>
	<p>Sites of significance to local dialect groups/clans</p>	<p>Includes sites identified in O'Connor R, Quartermaine G &amp; Bodney C (1989):</p> <ul style="list-style-type: none"> <li>Murray River Environs</li> <li>Serpentine Falls and river mouth</li> <li>Island Point</li> <li>Goegrup Lakes</li> <li>Winjan (Halls Head)</li> <li>Egg Island</li> <li>Dylans Grave (Boddington)</li> <li>Pinjarra Massacre Site</li> </ul>	<ul style="list-style-type: none"> <li>Physical disturbance</li> <li>Loss of knowledge</li> <li>Lack of maintenance</li> </ul>
<p><b>6B</b> Sites of recreational, tourism and other cultural significance</p>	<p>Natural areas which are publicly accessible and may/may not have formal or built facilities.</p> <p>Iconic fauna, such as dolphins, crabs, waterbirds.</p>	<ul style="list-style-type: none"> <li>Beaches and foreshores</li> <li>Rivers and Estuaries</li> <li>Public conservation estate and state forest</li> <li>Other Natural areas in local reserves</li> </ul>	<ul style="list-style-type: none"> <li>Decline in water quality</li> <li>Physical disturbance</li> <li>Uncontrolled access</li> <li>Litter</li> <li>Altered fire regimes</li> <li>Habitat loss</li> </ul>