Strategic Plan
for the Eyre Peninsula Natural Resources Management Region - 2017-2027
The Far West includes a large marine area extending along the Great Australian Bight to beyond the Nuyts Archipelago, nearly 80km offshore. The land area extents from Wahgunyah Conservation Reserve in the West to Minnipa in the east, and south to Venus Bay.

Quick stats

**Population:**
Approximately 6,270 (2011)

**Major towns (population):**
- Ceduna (approx. pop 2,290)
- Streaky Bay (approx. pop 1,000)
- Minnipa (350)
- Venus Bay (320)
- Smoky Bay (195)

**Traditional Owners:**
- Mirning nation
- Wirangu nation
- Kokatha nation

**Local Governments:**
- District Council of Ceduna
- District Council of Streaky Bay

**Land Area:**
Approximately 22,200 square kilometres

**Main land uses (% of land area):**
- Dryland agriculture (cropping and grazing) (52% of total land area)
- Conservation (46%)

**Main industries:**
- Agriculture
- Aquaculture
- Fishing
- Health care
- Social assistance
- Retail trade

**Annual Rainfall:**
270 - 380 mm

**Highest elevation:**
Tcharkuldu Hill (215 metres AHD)

**Coastline length:**
1083 kilometres (excludes islands)

**Number of Islands:**
What’s valued in Far West

The beautiful, clean beaches, rocky cliffs, great fishing and remoteness of the Far West are highly valued by the local community and visitors to the area. Favourite coastal areas include Fowlers Bay, Bunda Cliffs, Davenport Creek, Nuyts Archipelago, Smoky Bay, Streaky Bay and Sceale Bay. The pristine, white beaches at Fowlers Bay are loved by locals and visitors. From near Fowlers Bay and the Bunda Cliffs, many visit to catch a glimpse of whales in the Great Australian Bight. Great fishing and spectacular scenery can be found at Tuckamore, and Cactus Beach is a popular surfing destination.

The diversity of the coast around Streaky Bay is highly valued with granite pools, mangroves, crystal clear waters, sandy beaches and cliffs contributing to the area’s appeal. The sea lion and dolphin tours at Baird Bay as well as abundant birdlife and great fishing attract locals and visitors.

"The magnetism of Smooth Pool draws me into a deep stillness which is overlaid with gratitude to be close to such beauty".

Offshore, Nuyts Archipelago including St. Peters Island is valued for its wildlife and wilderness. The diverse marine life found in nearby waters make it a popular destination for recreational and commercial fishers. The arid landscapes of the Far West are integral to the community’s identity.

The tyranny of distance is felt by many in the community who value the remoteness of the region but sometimes struggle to access services and facilities available in more populated areas.

Broad scale cropping and grazing is undertaken across large areas of the Far West. Many farmers have long family connections to their properties and take pride in looking after their land. The distinct seasons are valued for the impact they have on the landscape and biodiversity.

"In spring, everything looks great after the early rains. Quandongs on trees and flowers coming."

The contrasting landscape between coast, plains and scrub are valued in the Far West. Large areas of scrub through the dune country of Yellabina Regional Reserve, and the conservation parks of Yumbarra and Pureba are valued for their wilderness. They further have deep Aboriginal cultural significance, and are popular recreational and tourist destinations. The local community are proud of the working together to protect some of these areas.

The Far West community is aware that Natural Resource Management is about the bigger picture of how humans interact with the natural environment over the longer term including considering the needs of future generations. They recognise the need to find a balance between conserving the natural environment and developing it for human needs. Achieving this will require all of the community to work together to improve the environment and the community.
Landscapes and seascapes

The Far West comprises a land area of around 21,900 square kilometres, with a large marine area extending along the Great Australian Bight to beyond Nuyts Archipelago, nearly 80 km offshore.

Far West experiences a semi-arid to arid climate. Rainfall is highest in southern coastal areas around Streaky Bay and Port Kenny where annual rainfall ranges from 345 to 380 mm, decreasing inland toward Wirrulla (290 mm per year) and west toward Penong (320 mm per year)\(^7\).

Soil type and rainfall influence land use in the Far West. Between Penong and Poochera, calcareous, sandy loam soils support cropping. West of Penong, soils are similar however rainfall limits agricultural production. South of Poochera toward the Venus Bay, soils are similar but shallower and there is less cropping\(^1\).

Across the centre of the Far West subregion from Bookabie to Minnipa, the undulating plains have been cleared for cropping. Prior to clearance, mallee dominated by Red Mallee (Eucalyptus oleosa) and Gilga (Eucalyptus brachycalyx) were the dominant vegetation type. Dune fields run north-west to south-east in the north and the east. Elevation increases moving east toward the Gawler Ranges, with the subregion’s highest point of 215 m occurring about 3 km east of Minnipa.

The landscape of the western part of the Far West along the Nullarbor Plain comprises low limestone dune ridges that support mallee woodland dominated by Yorrell (Eucalyptus gracilis) and Red Mallee (Eucalyptus oleosa). Close to the coast, the sandy beaches are backed by low shrubland of Nitre bush (Nitraria billardierei) and Bladder Saltbush (Atriplex vesicaria) that grow on deep sands. The semi-arid climate in this area is too dry to support field crops.

North of Bookabie, there has been little clearance of native vegetation. East to the NRM Regional boundary mallee woodland dominated by Red Mallee (Eucalyptus oleosa) is found across the low dunes. Moving north, the landscape is undulating with some sand dunes vegetated by low woodland of Western Myall (Acacia papyrascarpa). Further north toward the Yellabinna Regional Reserve, low shrubland dominated by Bladder Saltbush (Atriplex vesicaria) is found on the generally flat landscape, scattered with small shallow depressions.

Nearly 20% of the subregion’s land area is within National Parks and Wildlife Reserves, the largest areas being part of Yellabinna Regional Reserve and Pureba Conservation Park. Conservation areas extend off the coast including the eastern end of the Great Australian Bight Marine National Park and Nuyts Archipelago Wilderness Area.

Since December 2013, the Yumberra Co-management Board has been responsible for the control and management of the Yumberra Conservation Park and provided advice on the management of a number of other parks. Co-management enables Department of Environment, Water and Natural Resources to work in partnership with Aboriginal groups to cooperatively manage parks, recognising the connection between people, place and country.

The Far West’s coastal landscapes are diverse, featuring sandy beaches, rocky cliffs and headlands and protected bays. Areas of mangroves provide fish nursery habitat in the protected bays at Tourville Bay as well as near Smoky Bay and Streaky Bay. Dune systems exist behind about one third of sandy beaches both along the bays and along the Bight. Offshore habitats include seagrass meadows, sandy seafloors and rocky reefs, where nutrient-rich marine waters support commercial fish species, sharks, whales and sea lions.

A large area of the marine environment from offshore of Cape Adieu to Smoky Bay is protected within the Nuyts Archipelago Marine Park. This Marine Park is the largest in the South Australian Marine Park network and protects a range of habitats from coastal estuaries, cliffs and reefs to mangroves. Offshore and mangrove habitats include seagrass meadows, sandy seafloors and reefs, where marine waters support commercial fish species, sharks, whales and sea lions. The West Coast Bays Marine Park includes Scale, Venus and Baird Bays and protects mainland and island breeding colonies of the conservation rated Australian sea lion (Neophoca cinerea).

There are no permanent surface watercourses and few defined drainage lines. Minor watercourses drain runoff from the Nundroo Range and near Calca. Several salt lake systems are found including within the Calpatanna Waterhole Conservation Park, Lake Yaninee south of Minnipa, Lake Macdonnell and near the eastern boundary of the NRM Region within the Gawler Ranges Conservation Reserve.

A number of fresh groundwater lenses have been identified across the Far West subregion. Several lenses are used to supply potable water to towns not connected to the SA Water distribution network including Penong, Port Kenny and Venus Bay. Streaky Bay relied on the Robinson Lens located south-east of the town, for potable supply however increasing salinity of the Robinson lens required the town to be connected to the SA Water network to allow supply from the Tod-Ceduna supply network.

Along the Far West coast, there are numerous wetland systems including Davenport Creek, Streaky Bay (including Acraman Creek), Point Labatt and Baird Bay which are listed in the Directory of Important Wetlands in Australia. Migratory shorebirds use coastal and marine wetlands at Laura Bay, Seagull Lake (between Venus Bay and Streaky Bay), Venus Bay, Tourville Bay, Scale Bay and Murat Bay\(^9\).

Far West has a moderate diversity of flora and fauna, with more biodiverse areas around the Ceduna coastal area. The subregion has a relatively low number of endemic plants (found only in the subregion) and a lower number of flora species of conservation significance than other subregions. Iconic species and communities of conservation significance are show in Table 10. About 55% (1,200,000 ha) of the subregion’s land area contains remnant native vegetation. Just over 30% of this native vegetation is protected within Conservation Parks and Regional Reserves. About 130,000 ha (11%) of native vegetation is protected through Heritage Agreements in the subregion.
Livelihoods

The Far West landscapes and seascapes support the industries and businesses that sustain the communities’ livelihoods.

Cropping is the main agricultural land use in Far West, mostly occurring west of Penong where rainfall is higher. Crops including wheat, barley, oats and pulses are rotated. Far West produces on average about 20% of the Eyre Peninsula wheat crop, which is about 10% of South Australia’s total production80. Sheep grazing occurs south of Streaky Bay and north of Bookabie.

Commercial wild fisheries and aquaculture are key industries in the subregion. Farming of Pacific oysters has been undertaken for nearly 30 years and Denial and Smoky Bay are two of the largest producing areas in South Australia significantly contributing to local employment and the economy. Commercial wild catch fisheries export prawns, rock lobster, scallop and abalone.

The Far West relies heavily on transport infrastructure that supports market access for agricultural, mineral and seafood commodities as well as local tourism and business. Key infrastructure includes the Eyre and Flinders Highways, Ceduna Airport, Port of Thevenard and rail lines from Thevenard to Port Lincoln and Penong.

Mains water is supplied to Ceduna, Streaky Bay, Smoky Bay and Minnipa via the Tod-Ceduna pipeline from groundwater basins in the south of Eyre Peninsula. Penong, Port Kenny and Venus Bay townships rely on groundwater and rain water tanks for water supply.

Across the subregion, about 15% of employment is in agriculture, 12% in the health care and social assistance sector and 10% in retail trade. The majority of employment in the health care sector occurs in Ceduna which is a major centre for health and community services. About 5% of employment is in aquaculture81.

The Far West’s tourism industry centres on the natural coastal environment. Whale watching, recreational fishing and boat charters, diving with sea lions, and beach visits are popular tourist activities. Food-related tourism is increasing with visitors from Australia and overseas learning about and enjoying local seafood.

Mining is a key industry in the Far West. The Lake MacDonnell gypsum mine is Australia’s largest gypsum mine and exports from Thevenard. A number of smaller mines and quarries produce gypsum, calcrite and sand. Developing mineral projects include the Poochera kaolin mine and Tripitaka mineral sands north of Penong. Three percent of the subregion’s employment is currently in mining but is expected to grow in coming years82.

Lifestyles

Ceduna, located on the coast almost in the middle of the subregion, is the main urban centre of the subregion. Other larger townships are located at Streaky Bay, Port Kenny, Minnipa, Poochera and Penong.

Far West is home to around 6,270 people, nearly 90% of whom live within the District Council of Ceduna and the District Council of Streaky Bay. The western end of the subregion is outside Council boundaries and about 250 people live in this area. In the south of the subregion most of the remaining population reside within the townships of Port Kenny and Venus Bay (District Council of Elliston) and Minnipa (Wudinna District Council)83.

The population of the District Council of Ceduna has seen a small decline in population in recent years of about 2% from 1998 to 2011. Population projections for the Council area expect a small increase to 2026. The District Council of Streaky Bay has seen an increase in population from 1998 to 2011 of 7%. This was above projected rates of population change which project a small decline in population of about 2% to 2026 84.

The age distribution of the Far West is similar overall to that of the broader Eyre region around a third aged under 25 years, just over half aged between 25 and 64 years, and around 15% aged 65 years and over. Within this subregional distribution, there are some age groups that show particular differences. The population of 5 to 14 year olds is lower in the Far West than across all of the region, and there is a greater proportion of older residents aged over 65 in the Far West 85.

<table>
<thead>
<tr>
<th>Fauna</th>
<th>Flora</th>
<th>Vegetation communities</th>
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<tbody>
<tr>
<td>Brush-tailed Bettong <em>(Bettongia penicillata ogilbyi)</em></td>
<td>Club Spear-grass <em>(Austrostipa nullanulla)</em></td>
<td>Drooping Sheoak <em>(Allocasuarina verticalata)</em> grassy low woodland</td>
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<tr>
<td>Southern Brown Bandicoot <em>(Isoodon obesulus obesulus)</em></td>
<td>Bead Samphire <em>(Halosarcia flabelliformis)</em></td>
<td>Smooth Cutting Grass <em>(Gahnia filum)</em> sedgeland</td>
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<tr>
<td>Humpback Whale <em>(Megaptera novaeangliae)</em></td>
<td>Silver Candles <em>(Pleuropappus phyllocalymmeus)</em></td>
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<tr>
<td>Southern Right Whale <em>(Eubalaena australis)</em></td>
<td>West Coast Mintbush <em>(Prostanthera calycina)</em>.</td>
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<tr>
<td>Australian sea lion <em>(Neophoca cinerea)</em></td>
<td>Seagrass <em>(Thalassia testudinum, Syringodium filiforme, Halodule wrightii, Halophila johnsonii, Halophila decipiens, Halophila engelmanni, Ruppia maritima)</em></td>
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<tr>
<td>Mallee Fowl <em>(Leipoa ocellata)</em></td>
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Table 10 – Selected fauna, flora and vegetation communities of conservation significance
Over 25% of the population for the District Council of Ceduna identify as having Aboriginal or Torres Strait Islander heritage. This is the highest of any Local Government area in South Australia, and well above the region total of 4%. Only 1% of the population of the District Council of Streaky Bay identify as having Aboriginal or Torres Strait Islander heritage. The Far West comprises areas of the traditional land of the Mirning, Wirangu and Kokatha Aboriginal people. A number of registered and reported Aboriginal Heritage sites exist along the Far West coast and there are likely to be many other unrecorded sites.

In 2013, the Far West Coast Native Title Claim determined that native title exists for this area which extends from south of Smoky Bay west to the State border. The Barngarla people were recognised as the Traditional Owners of the area from Minnipa to Wirrulla in 2015. The Wirangu No 2 Native Title Claim covers the area south of Venus Bay.

North and west of Ceduna, a number of Aboriginal Homeland communities have been established, maintaining Aboriginal communities' connection with country. Adjoining the region to the west is the Yalata Indigenous Protected Area where there is an agreement with the Australian Government to manage the country for biodiversity and cultural conservation.

Recreational fishing is a way of life for many locals in the Far West, where casting off the beach or their boats forms a vital part of their identity and wellbeing. Surfing, diving and other water sports are also popular recreational activities.

Volunteering rates provide an important indicator of community connection. Volunteering rates are slightly lower in the District Council of Ceduna than across most of Eyre Peninsula (28%) and higher in the Streaky Bay Council at 37%. Sport provides opportunities for community connectedness with many residents participating in football, netball, tennis, cricket and golf.

**Systems understanding**

The Far West is a complex system of connections and interactions between people, industries and natural resources. These connections and interactions mean that when one feature is impacted, flow on effects will be experienced by other features in the system. Developing this understanding can help identify the factors that make the system resilient or vulnerable to change. The Far West system is conceptually depicted in Figure 22, where the arrows represent the connections between the system's features.

Key features of the system include agriculture, seafood industries and the coast. A number of connections in the system are integral to the viability of the Far West subregion. This includes the connection between transport and export industries and the productive industries of agriculture, fishing, aquaculture and mining, who are reliant on road and rail networks to export products. The reliance on the food and water from outside the subregion is reflected in the arrow between food, water and the community.

Key features are the coast and marine biodiversity as it underpins tourism, biodiversity, seafood industries and the community's lifestyles. It was identified that coastal degradation is a challenge facing the subregion. Figure 23 depicts the factors affecting coastal degradation.

![Figure 22 – Interconnections of the Far West subregion](image-url)
Coastal degradation is increasingly impacting beaches in the Far West. Beaches and dunes are naturally fragile to wind erosion and high swells, however increasing visitors are leading to increased erosion of beaches and dunes. Visitation is also disturbing coastal biodiversity such as shorebirds and increasing litter on the coastline. Shorebird nesting is further disturbed by dogs off leashes, and roaming foxes.

Figure 23 – Coastal Degradation
Key NRM challenges and opportunities

NRM is integral to sustaining the livelihoods and lifestyle of the people of Far West who rely on the subregion’s natural resources for employment, recreation and wellbeing. A range of opportunities were identified by the community and stakeholders to address the key challenges facing natural resources in the Far West subregion. Table 11, identifies key NRM challenges and opportunities to address them.

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Opportunities to address challenges</th>
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<tr>
<td><strong>Agricultural viability</strong></td>
<td>A1. Support extension officers and agronomists to facilitate practice change and promote sustainable agriculture practices, this includes information sharing with farming groups and agricultural bureaus</td>
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<td>A3. Promote practices that prepare landholders to be drought ready, and promote practices that build soil health, and address the causes of soil erosion, dryland salinity and soil structure decline</td>
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<td>A8. Support the development and utilisation of water efficiency measures and alternative water supply infrastructure including sheeted catchments</td>
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<td>D6. Promote the adoption of restorative farming practices that build soil life and diversity, and maximise ecosystem services</td>
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<td><strong>Declining biodiversity</strong></td>
<td>D1. Protect and restore coast and marine habitats, particularly for priority areas identified in the Coastal Action Plan and Marine Parks’ plans</td>
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<td>D2. Protect and restore remnant terrestrial habitats and establish biodiversity corridors that link habitats. Priority areas include</td>
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<td>D4. Develop and implement integrated pest management strategies that address the impacts and causes of pest persistence or incursion. Particular attention is required for overabundant herbivores, feral predators, woody weeds and new pest incursions such as buffel grass</td>
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<td>D5. Develop and implement strategies and plans to protect threatened species and ecological communities, includes implementing threatened species recovery plans</td>
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<td>C1. Monitor and evaluate natural resources management actions, and their effect on natural resources’ condition and trends</td>
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<td>C3. Increase participation in citizen science initiatives that assist understand trend and condition of natural resources</td>
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<td><strong>Coast and marine degradation</strong></td>
<td>B1. Support local and regional partners implement the Off-Road Vehicle Strategy, including investigations for designating areas for biodiversity protection and recreational use</td>
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<td>B2. Facilitate the development of tourism infrastructure, facilities, information and signage to enable sustainable access and use of the coast and parks</td>
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<td>B3. Support on-ground works to protect and enhance coastal and park condition including track rationalization, fencing, erosion control, access tracks, revegetation and pest control</td>
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<td>B4. Raise awareness about coast and marine conservation including education about human impacts</td>
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<td></td>
<td>A4. Partner with seafood industry on mutually beneficial projects including water quality monitoring and works, habitat protection, and marine debris reduction and clean-up</td>
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<td><strong>Aboriginal involvement in NRM</strong></td>
<td>F2. Support native title groups in co-managing public land, including supporting the Far West Traditional Owners Group implement the Healthy Country Plan</td>
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<td>F3. Support traditional owners, Recognised Aboriginal Representative Bodies, Aboriginal Regional Authorities and Aboriginal communities manage natural resources and record sites of Aboriginal cultural significance</td>
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<td></td>
<td>F4. Provide training and career pathways into NRM related employment</td>
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<td>F5. Support awareness raising activities about Aboriginal cultural knowledge and law</td>
</tr>
</tbody>
</table>

Table 11 – Key NRM Challenges and opportunities for the Far West subregion
References


77 Department of Environment, Water and Natural Resources (2007) Soil Landscapes spatial data.


