

- South Fremantle
- Former Fremantle Tip Site
- South Beach
- Fremantle Village Caravan Park
- Beelie Regional Reserve
- Freight Rail
- Switch Yard
- Power Station
- Port Coogee

Figure 5\_Cockburn Coast site location

# 4.0 The Place

## 4.1 Locational Context

Cockburn Coast is a 330 hectare site located approximately 18 kilometres south-west of the Perth CBD and 4 kilometres south of Fremantle between the recent developments of South Beach and Port Coogee.

The site is bound by the Indian Ocean to the west and is afforded spectacular views across the ocean for the length of the site, including magnificent views to Carnac, Garden and Rottnest Islands. Beeliar Regional Park is located to the east of the site, which includes Manning Lake, Azelia Homestead and provides a wilderness experience in the natural bushland and sand dunes within the reserve (refer Figures 5 and 6).

The project area historically accommodated a range of industrial businesses and includes the South Fremantle Power Station and switchyard. While there are a number of industrial uses still operating, a majority of the land is now ripe for redevelopment.

Cockburn Coast Road runs through the project area and currently functions as the primary north-south route for road freight and regional traffic. The freight rail line is a significant barrier to east-west connectivity between the high amenity of the regional park and coastline



Cafe at South Beach, located to the north of the project area



New development at South Beach

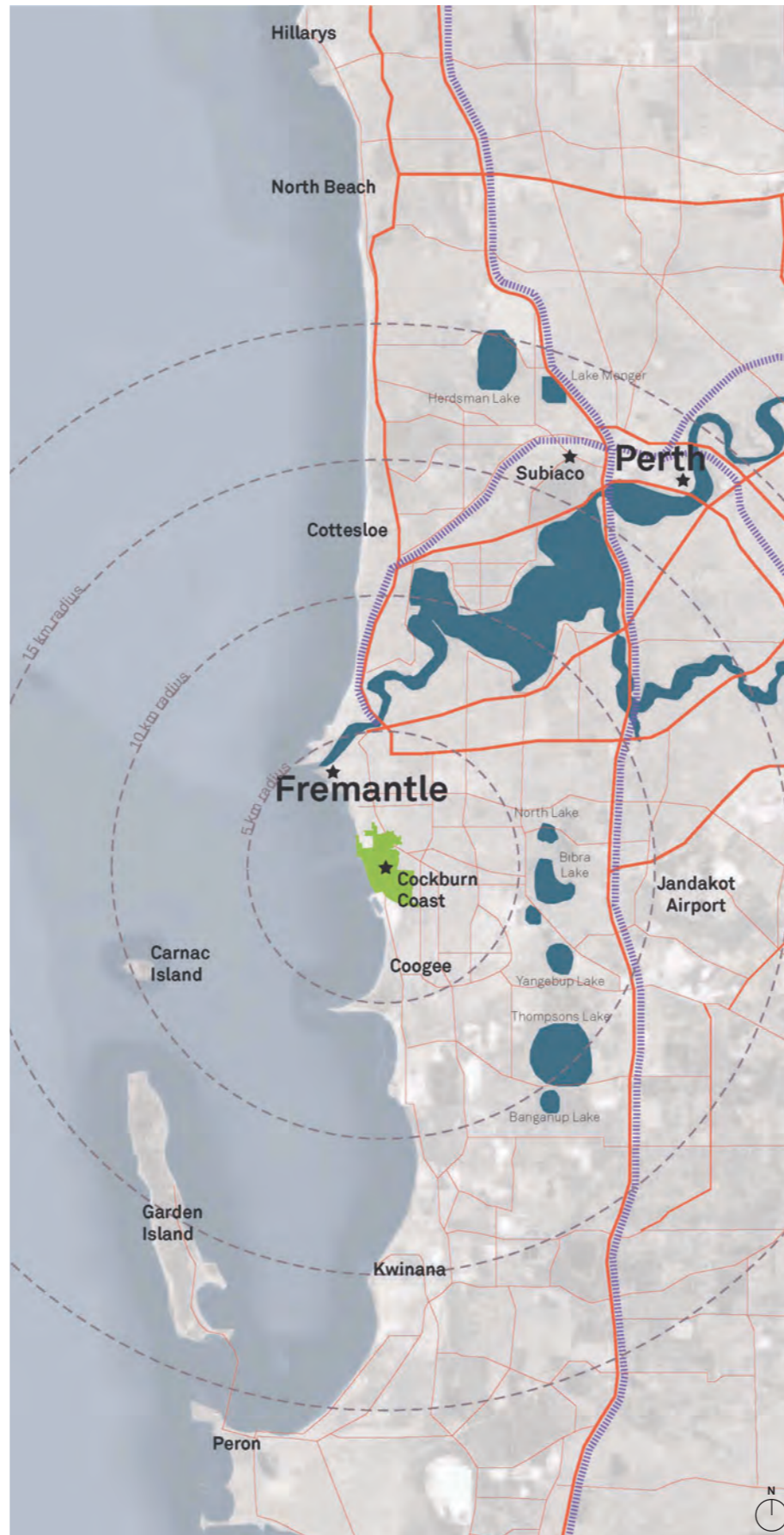


Figure 6\_Location Plan



The coastline is unique in its own right and an integral feature of the locality



Views from Emplacement Crescent looking north-west over project area to Indian Ocean



South Fremantle Power Station is a monolithic and historically an important structure

# 4.0 The Place

## 4.2 Functional and Economic Context

Cockburn Coast is well located between economically significant centres in the southern metropolitan area of Western Australia, namely Fremantle, Rockingham, Kwinana and Henderson. It is also well connected to other major employment areas at Cockburn Central (via Rockingham Road/Beeliar Drive) and Spearwood industrial area.

While the site itself is a former industrial area, the surrounding areas of South Fremantle, Coogee, Hamilton Hill and Spearwood are existing residential suburbs.

The South West subregion, encompassing the Cities of Cockburn, Kwinana and Rockingham, has experienced considerable economic and population growth driven by continued high demand for coastal locations, historically strong demand for lower density suburban development, and a consistently high level of industrial activity. Within the South-West Sub-region, Rockingham is the principal centre of mixed use activity and is classified under Directions 2031 as a Primary Centre; Kwinana and Henderson are strategic industrial centres with a major focus on heavy industrial and export-oriented industry, employing over 10,000 workers.

According to the employment targets set within Directions 2031, the south-west sub-region is expected to increase its employment self-sufficiency rate to 70% by 2031, requiring the creation 41,000 new jobs, an increase from the already existing 52,000 in 2008. If the Cockburn Coast economy is to fully mature, it would provide a significant lift to the sub regional economy by improving the economy's competitive edge and value propositions on offer. In addition, it should directly contribute between 2,310 and 3,125 jobs (depending on the Scenario) towards the Directions 2031 employment target of 41,000 new jobs. These targets can most effectively be achieved by integrating with existing major industries within the sub region such as those at Rockingham, and the strategic industrial centres of Kwinana, Henderson and the proposed Latitude 32 (Hope Valley – Wattleup). Cockburn Coast will not become as economically productive as these other centres, but it should still play a valuable role in providing high quality employment within the Sub-region.

Generally, Cockburn Coast should compete with, but not cannibalise, existing and future economies in other centres within the South-West Sub-region, and those immediately to the north in the Central Sub-region, including Fremantle.

Fremantle's economic role encompasses primarily port/logistics activities, and consumer services. Economic development has been constrained due to a number of factors including (but not limited to) land use capacity constraints, heritage regulations and availability of appropriate locations for commercial developments. Cockburn Coast can potentially assist in enhancing economic activity within its immediate vicinity, including Fremantle, by contributing to an internationally competitive value proposition for the area, increasing the likelihood of major infrastructure investment.

Intrinsic to the economic development of Cockburn Coast is the formation of strategic links with surrounding activity within the south-west industrial corridor known as the Western Trade Coast.

The 2007 Western Trade Coast Economic Impact Assessment report identified the major strategic centres of:

- \_ The Australian Marine Complex at Henderson
- \_ Hope Valley – Wattleup Industrial Area
- \_ The East Rockingham Industrial Area
- \_ The Kwinana Industrial Area
- \_ The planned Fremantle Outer Harbour Development

These industrial precincts are of obvious strategic importance to WA in regards to the development of strategic industries deemed vital to the State's future economic prospects. Given the proximity of these precincts to metropolitan centres and the access to supporting infrastructure such as power, gas, water, and transport corridors, the Western Trade Coast represents the most important strategic industry land holdings in the greater metropolitan area. Economic development initiatives at Cockburn Coast should target vertical and horizontal integration with the major industries of the Western Trade Coast, and complement the economic positioning of the Western Trade Coast and the sub-region to prospective industries within the state and internationally.

To the right is a scale comparison of Cockburn Coast with other prominent coastal (Cottesloe, Scarborough) and employment locations (West Perth). This scale comparison gives an idea as to the potential for Cockburn Coast to provide a range of different coastal, recreational, employment and activity functions (Figures 7, 8 and 9).

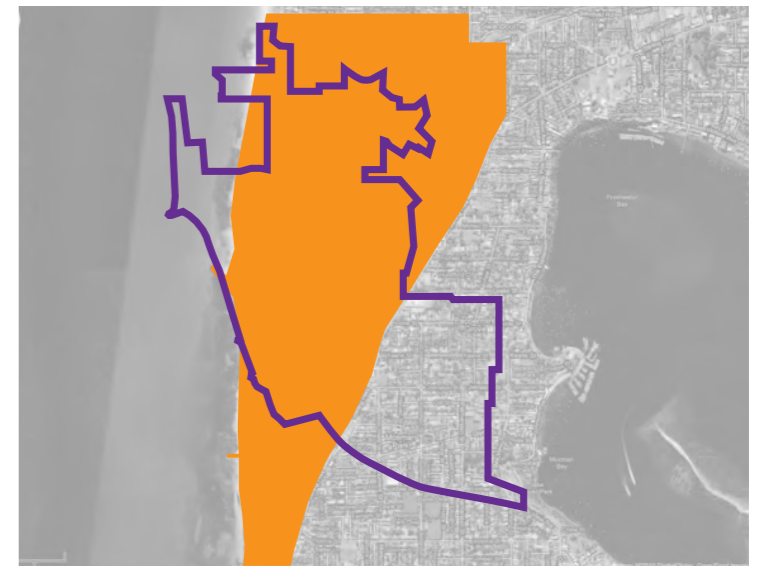


Figure 7\_Cockburn Coast compared to Cottesloe

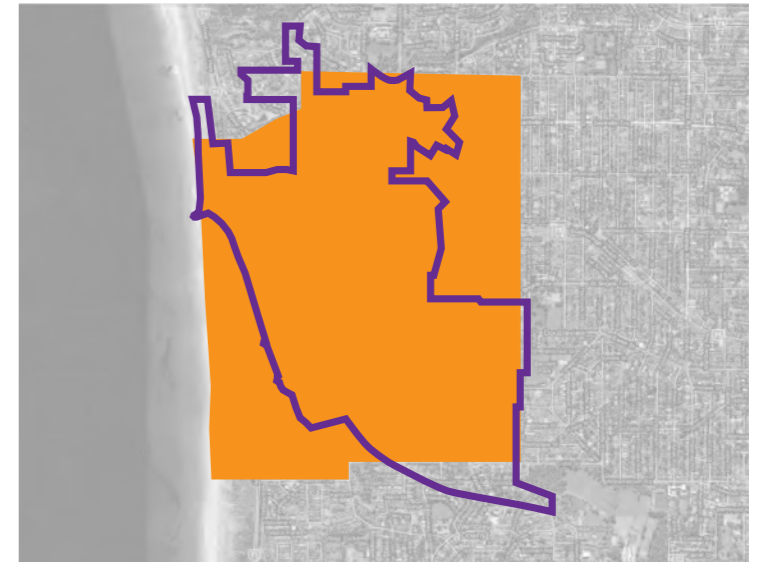


Figure 8\_Cockburn Coast compared to Scarborough

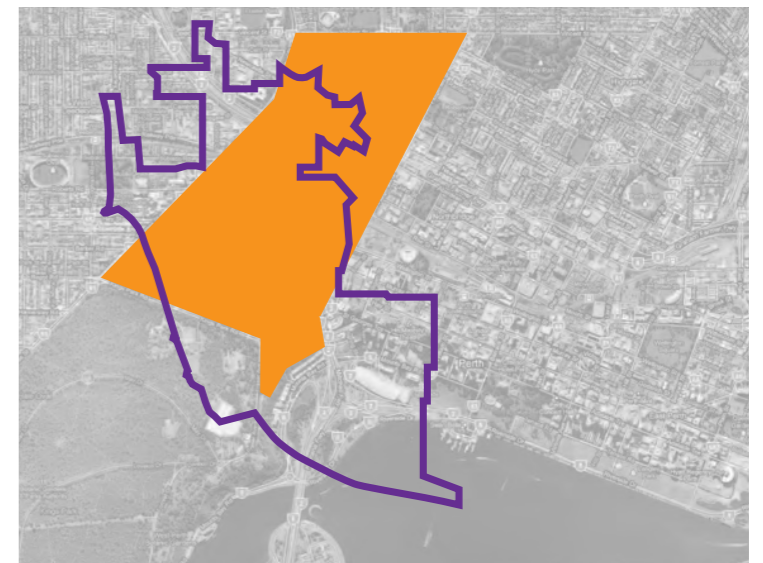


Figure 9\_Cockburn Coast compared to West Perth

# 4.0 The Place

## 4.3 Site Analysis

### 4.3.1 Accessibility

Movement through Cockburn Coast is currently defined by the existing transport network. North-south movements are generally well catered for within Cockburn Road, Bennet Avenue, Robb Road and the freight rail alignment. However, these also provide barriers to efficient east-west movement through the site due to a lack of east-west connectivity. Rollinson Road is the sole east-west access through the project area in the north of the site, while McTaggart Cove provides a connection at grade across the rail in the south. Refer Figure 10.

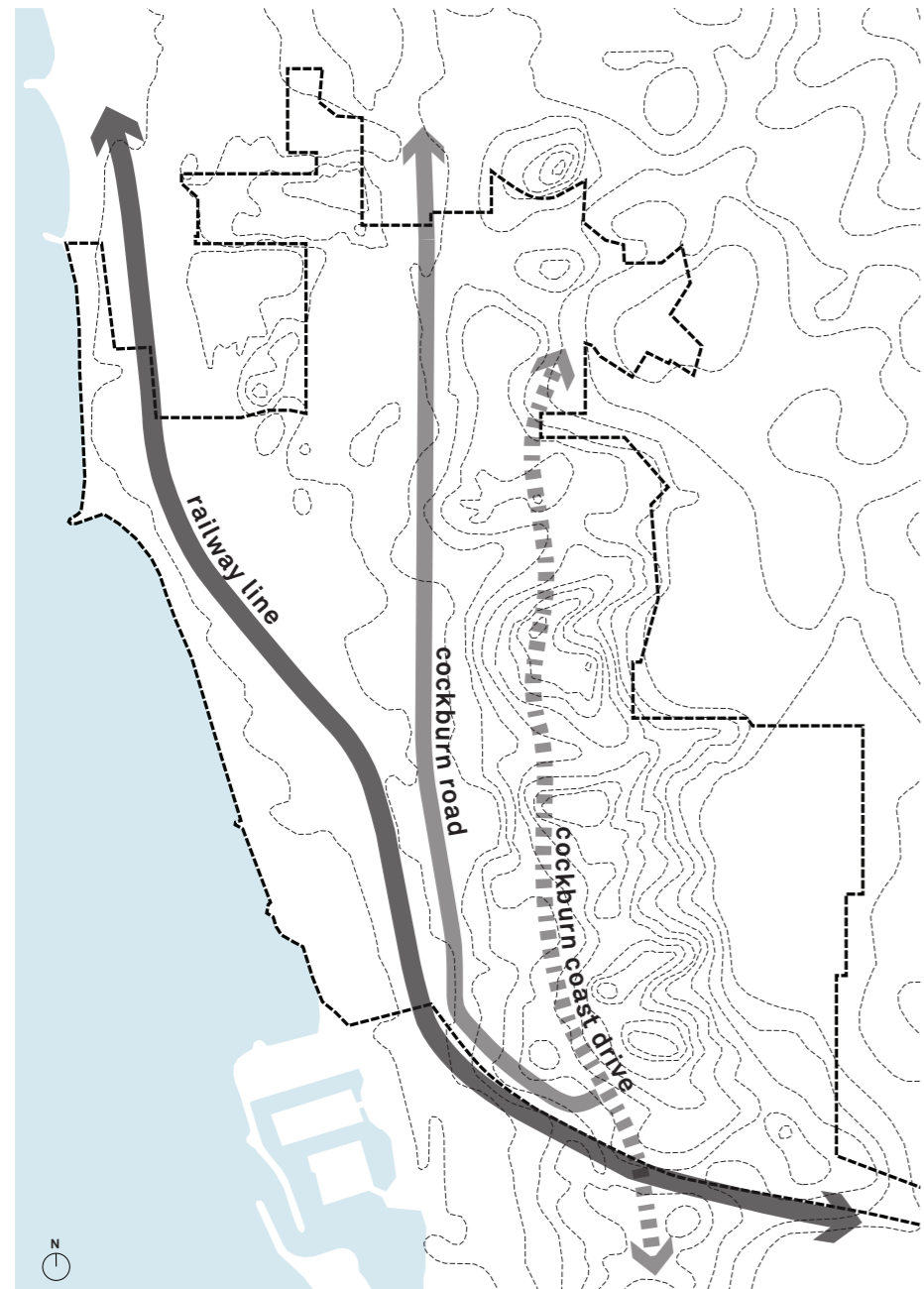


Figure 10\_Barriers to access

### 4.3.2 Circulation - Existing

There is a lack of east west links connecting through to the coast due to the historic movement network between Fremantle and the industrial areas to the south, which is predicated on the north-south freight rail and Cockburn Road. Refer Figure 11.

Noise and vibration management systems near freight railway line and Cockburn Coast Drive will need to be a consideration for future sensitive development. An example of where this has worked successfully in the local area is the 'Islands' development at South Beach Village.

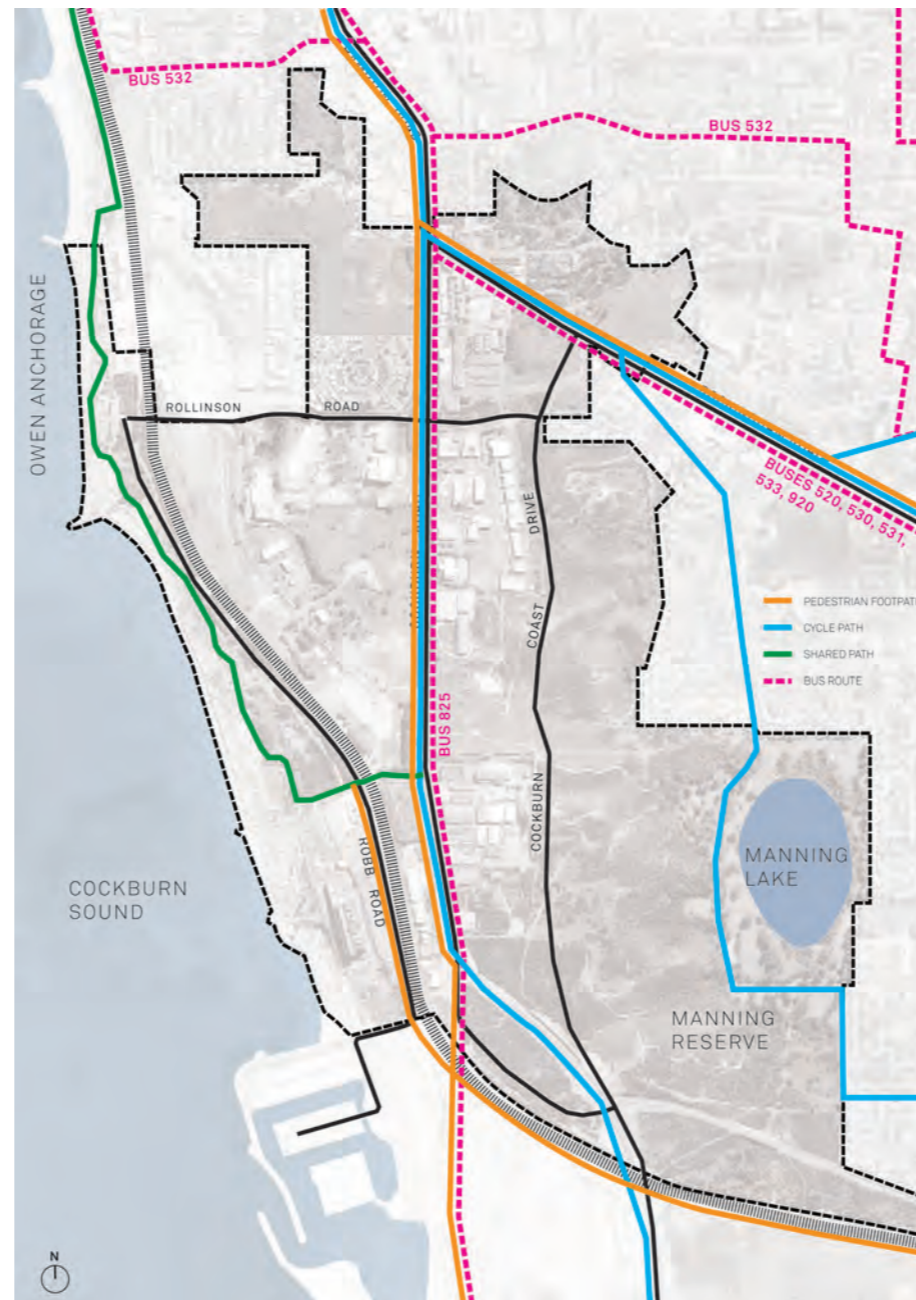


Figure 11\_Lack of east-west links



View west from Robb Jetty Road



Freight rail infrastructure running through the site



Existing cycle network linking north and south of the site

# 4.0 The Place

## 4.3.3 Topography

The topography of the site is indicative of its coastal location, which consists of a primary dune system of around 5 metre AHD in the west and a secondary dune system in some sections.

The site ranges from being relatively flat between the rail reserve and Cockburn Road and gently rises up to a ridgeline that runs north-south through the eastern section of the project area. This ridgeline is steep in parts and also consists of some east-west valley formations. The ridgeline reaches heights of 50 metre AHD in parts.

## 4.3.4 Site Profile

The site is relatively flat between the coast and Cockburn Road. A ridgeline runs in a north-south direction through the site east of Cockburn Road within Manning reserve. Unobstructed views to the Coast are attainable from this ridgeline. Manning lake is located east of the ridgeline within Manning reserve.

The ridgeline for the most part currently obscures direct views to the coast from existing residential areas located to the east of the project area.

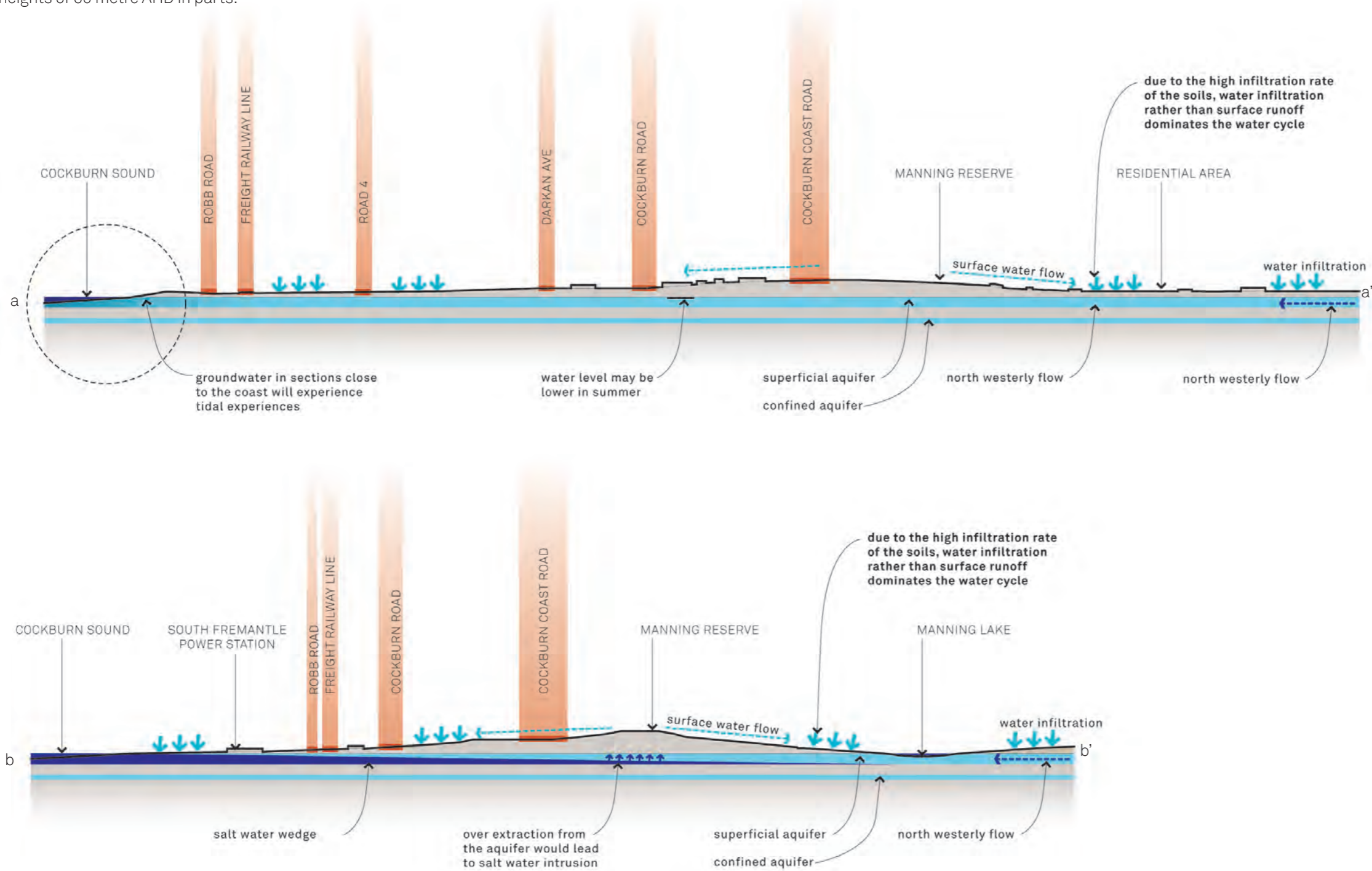
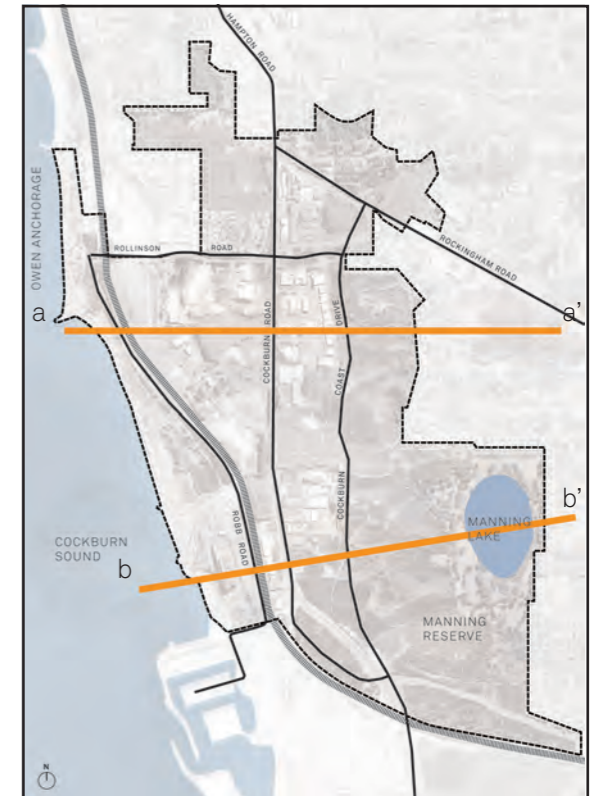


Figure 12\_Topography



Section locator

# 4.0 The Place

## 4.3.5 Vegetation Profile

The profiles below illustrate that the foreshore vegetation and ridgeline vegetation communities that exist within the Manning reserve are disconnected, with no continuous linkages to allow for fauna movement between communities.

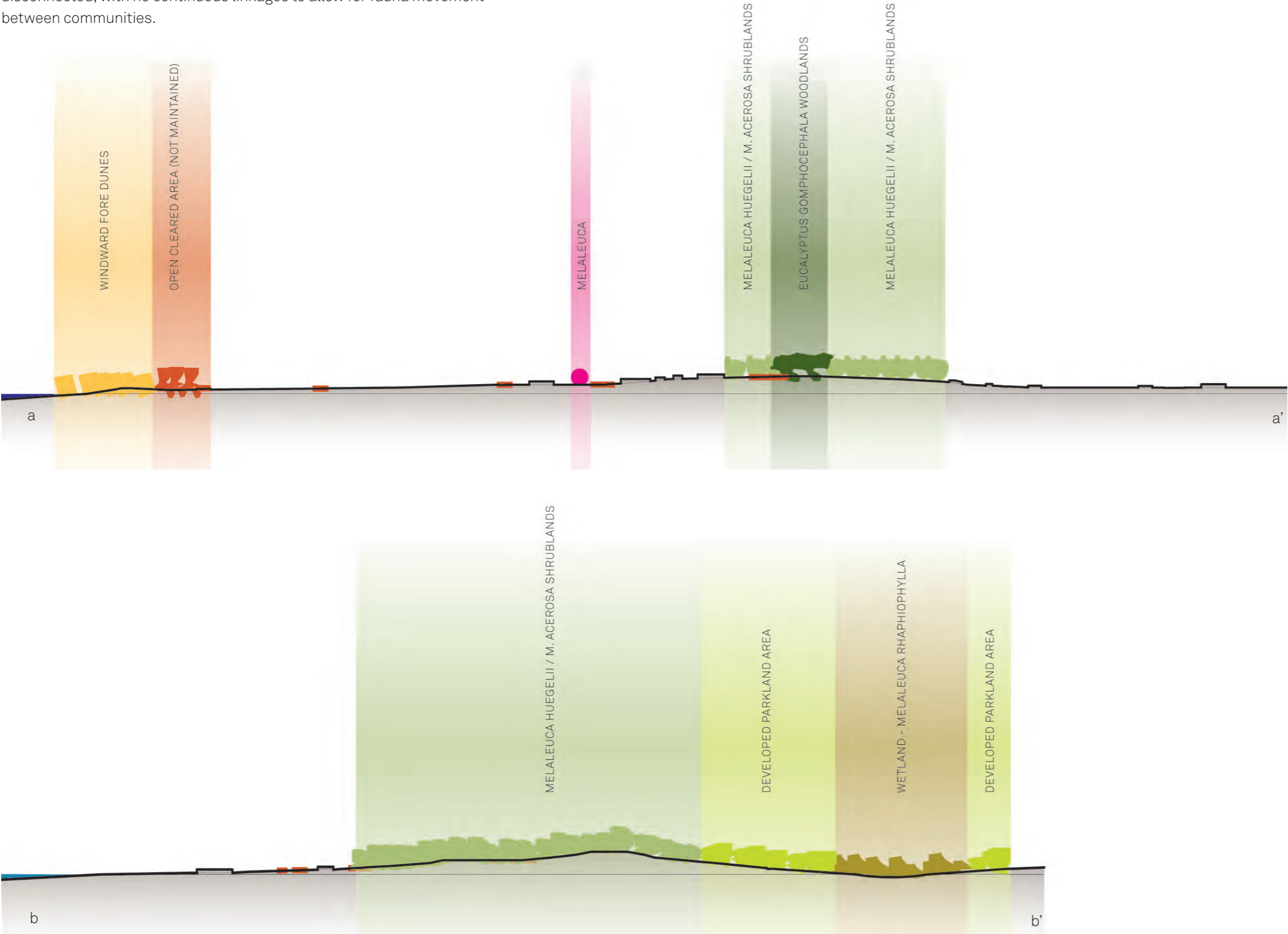
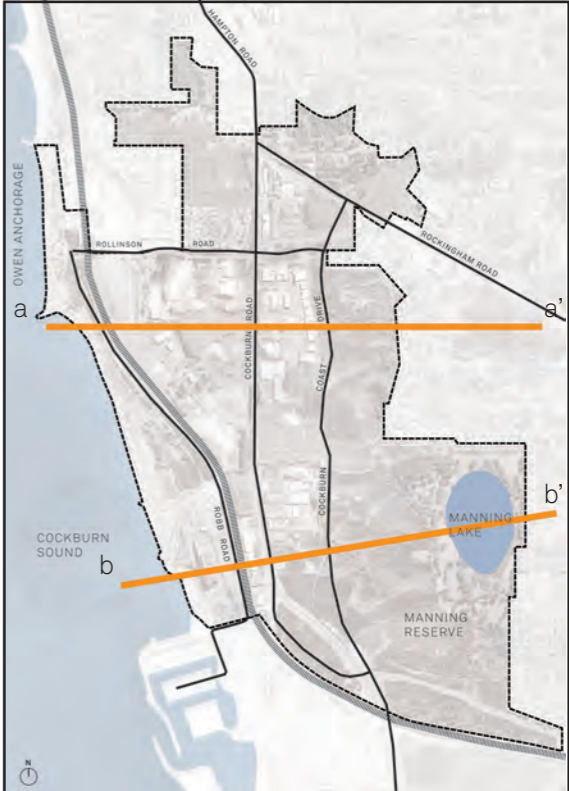


Figure 13\_Vegetation Profile



Section locator

# 4.0 The Place

## 22 4.3.6 Vegetation Communities

Many different vegetation groups exist within the foreshore reserve and Manning reserve, these will be protected and reinstated. A number of Norfolk Island pines, which are representative of earlier European settlement, exist within Water Corporation's sewer pump station reserve. These mature tree species will be protected and incorporated within the public realm as they have significant cultural and heritage value. Refer Figure 14.

The project area contains limited vegetation between the rail reserve and Cockburn Road due to clearing related to past industrial activities, however, notable within this area are linear plantings of Tamarisk trees and a row of fig trees. The condition of remnant vegetation is generally degraded, with weed infestation resulting from a lack of understorey. Refer Figure 15.



Figure 14\_Vegetation Communities

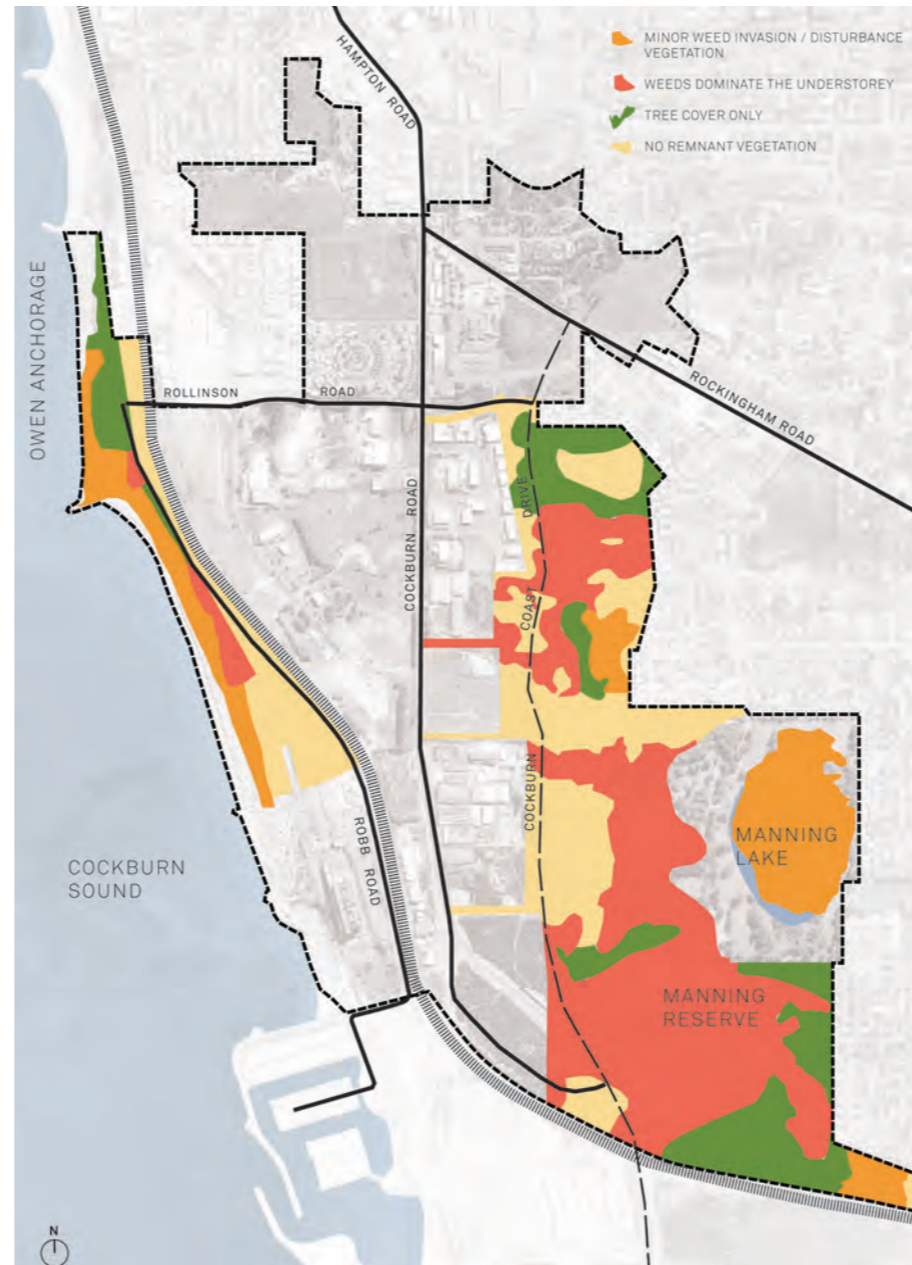


Figure 15\_Vegetation Condition



Windward primary dunes at Robb's Jetty Beach



Shrub land / Woodland



Cultural Vegetation - Norfolk Island Pines



Melaleuca huegellia / Acerosa shrublands at Manning Reserve

# 4.0 The Place

## 4.3.7 Geology

The project area consists largely of safety bay sands which has a high rate of hydraulic conductivity, meaning that there is limited surface water runoff as the sandy soil is very porous.

Tamala limestone follows the ridgeline in a north-south direction along Beelie Reserve and Safety Bay Sands adjacent to the coastline. Refer Figure 16.

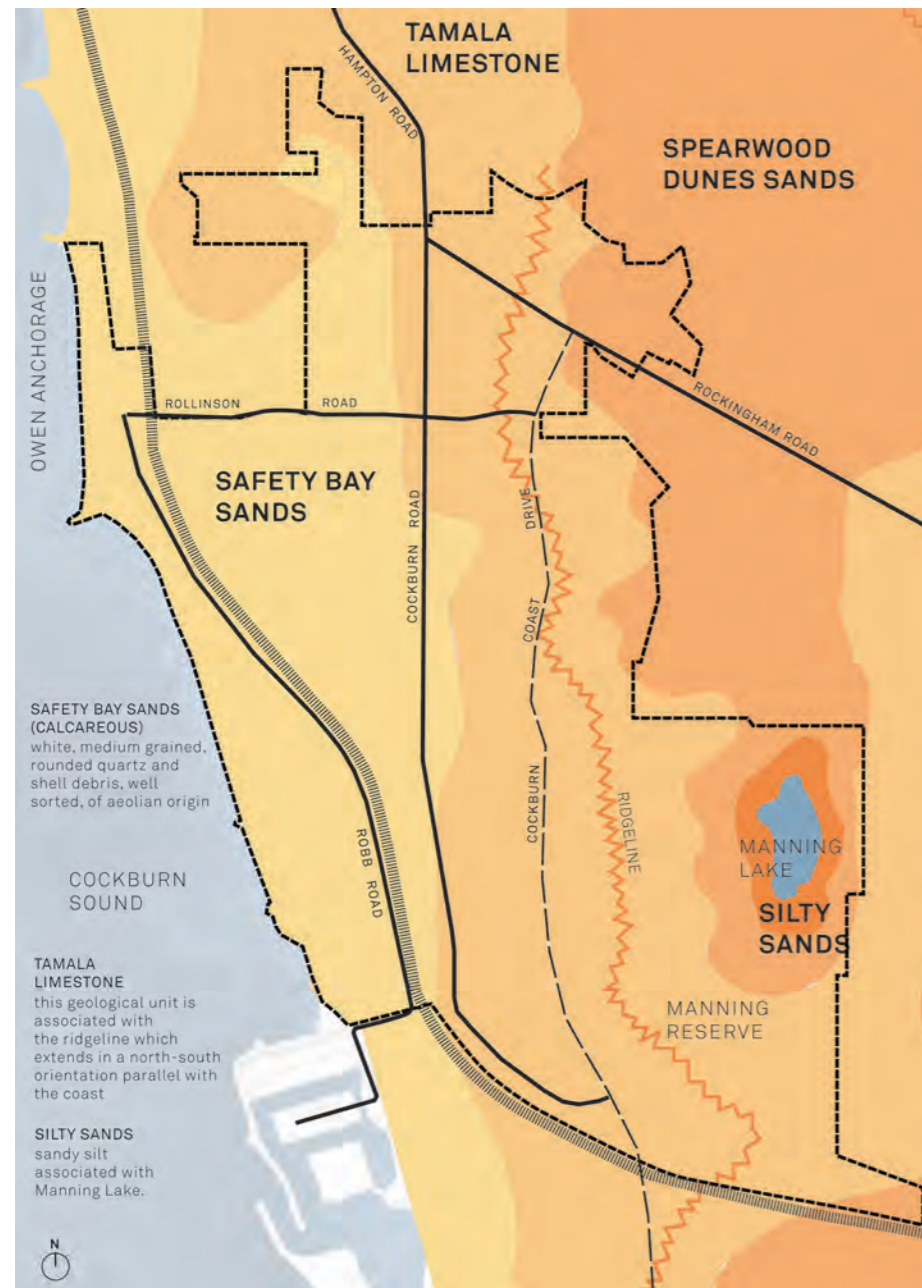


Figure 16\_Geology

## 4.3.8 Beach Amenity

Three distinct areas of the Cockburn coast foreshore have been identified within the Cockburn Planning Strategy (WAPC, June 2008). These have been characterised by the nature of existing heritage buildings, type of beach setting and the opportunity to offer a range of beach experiences.

- South Fremantle power station sector – incorporating the power station and adjacent switchyard, plus the foreshore area to the immediate north of McTaggart Cove;
- CY O'Connor sector – which includes the natural beach area between Catherine Point groyne and the South Fremantle power station sector; and
- North Coogee sector – located at the western extent of Rollinson Road between the ANI Bradken site and the Cockburn coast structure plan area.

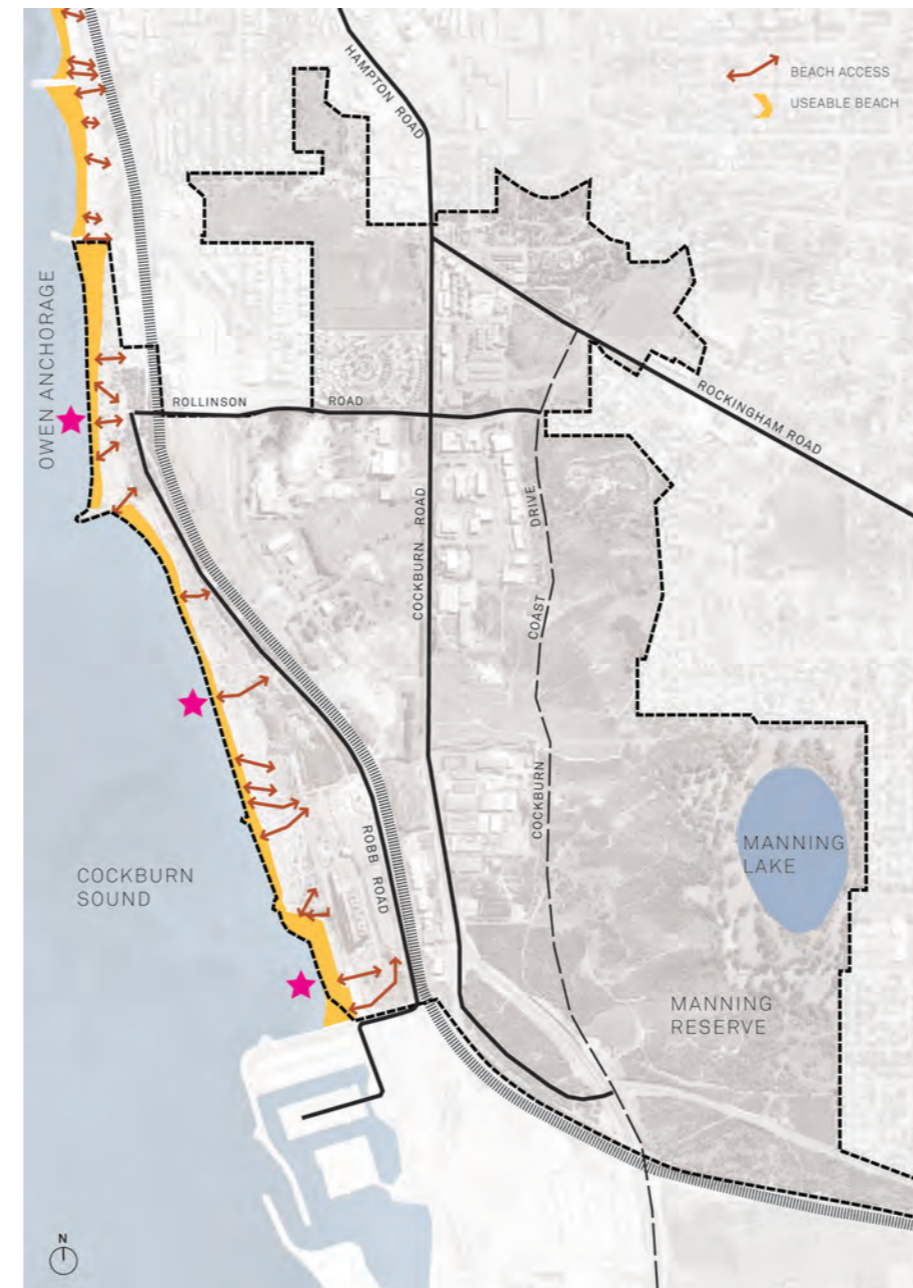


Figure 17\_Beach Amenity

There are a number of formal and informal access tracks down to the beaches which are identified in Fig 17. A physical setback line has also been defined in accordance with State Planning Policy 2.6.

Beach access, character and function of the beach has been a key consideration in preparing the Landscape Master Plan.



Catherine Point Reserve



Robb's Jetty Beach



South Fremantle Power Station Beach

# 4.0 The Place

## 24 4.3.9 Contamination

Given the project area has historically accommodated a range of industrial activities, including a former landfill site and power station, there is a number of known and potential contaminated sites. Contaminated sites will need to be investigated and remediated prior to subdivision and development.

Known areas of past and current contamination are identified in Figure 18 below.

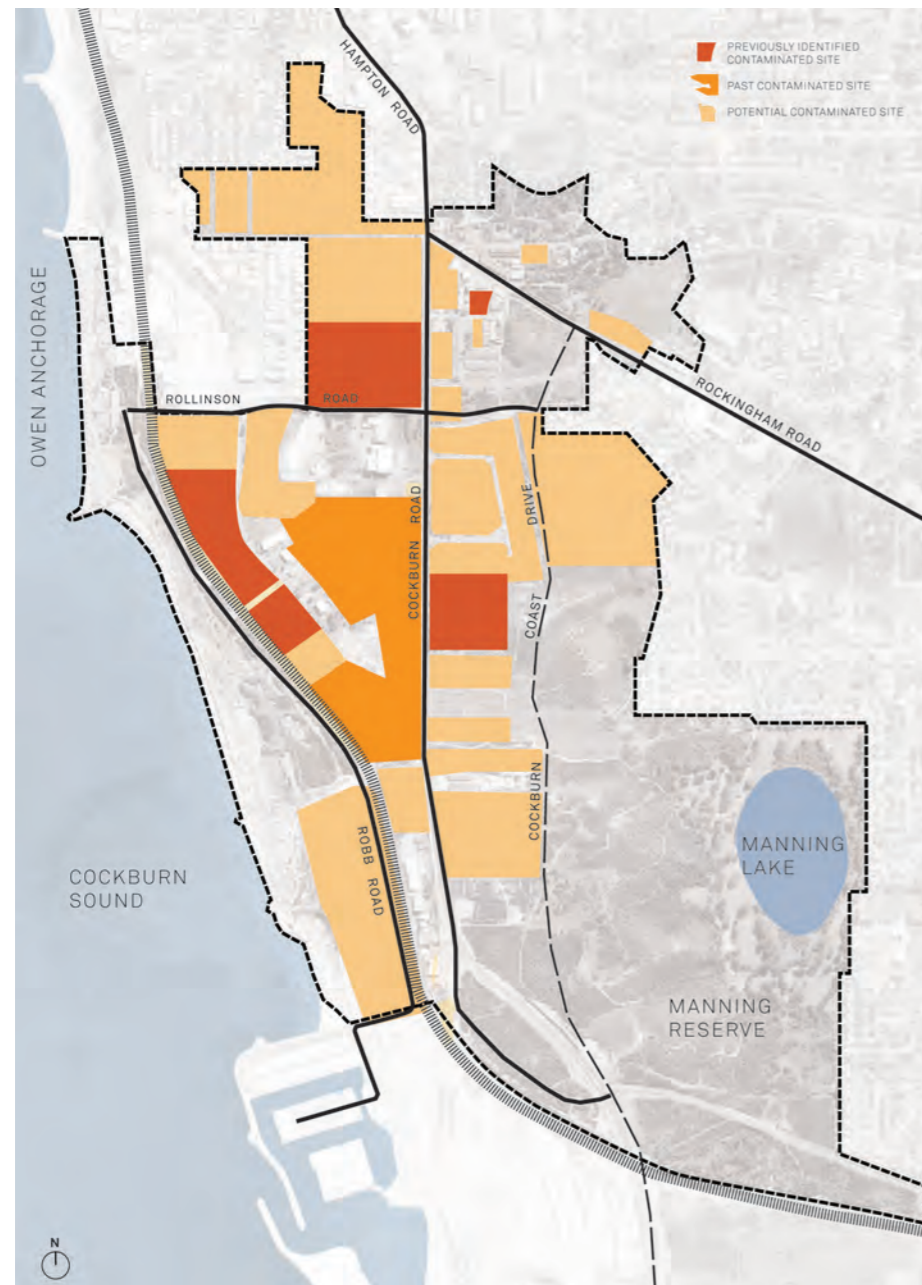


Figure 18\_Contaminated Sites (DoP, 2009)

## 4.3.10 Surface Water Flow

Surface water flow is influenced by the following factors:

- Ridgeline runs north-south through site approximately 1.5 m east of the coastline which divides the site into two catchments, east and west
- Drainage valleys run east-west
- Surface runoff is minimal due to high infiltration rates of sandy soils

Refer Figure 19.

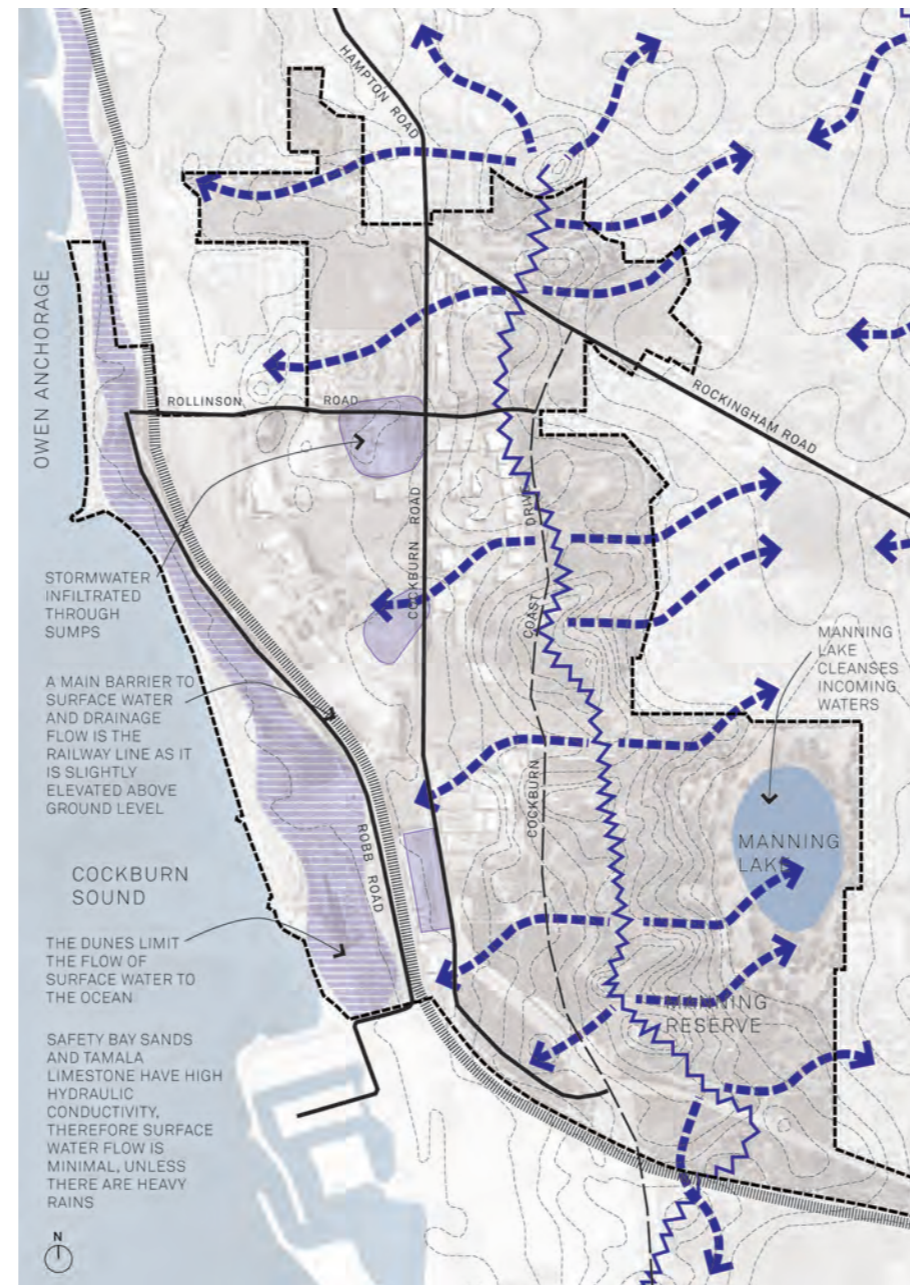


Figure 19\_Surface Water Flow

## 4.3.11 Ground Water

Groundwater on the site is generally deep and therefore is not a constraint to development. However, the use of groundwater on the site has its risks, primarily the risk of salt water incursion and the historical contamination that has occurred from previous land uses such as landfills and industrial sites. Therefore the use of groundwater on the site is not recommended. (Information taken from Cockburn Coast District Structure Plan September 2009).

Refer Figure 20.

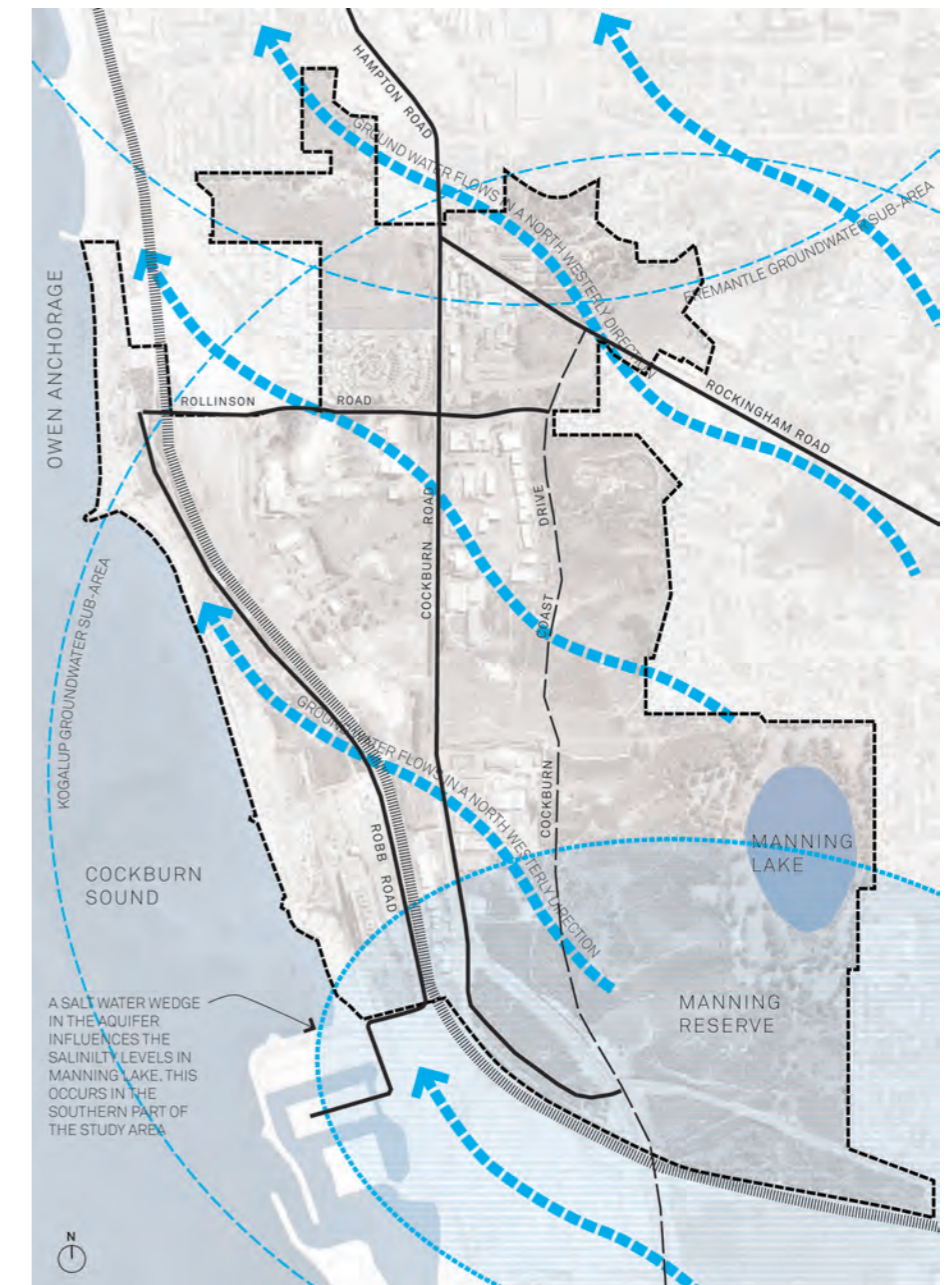


Figure 20\_Ground Water

# 4.0 The Place

## 4.3.12 Historical Industrial Activity

The image below details the industrial and settlement infrastructure associated with this section of the coast. It details a long association of activity with the coast and outlines the degree of physical modification that this section of coastline has been subject to. These modifications include 6 groynes, seawall, jetty and infrastructure associated with the power station. Refer Figure 21 below.

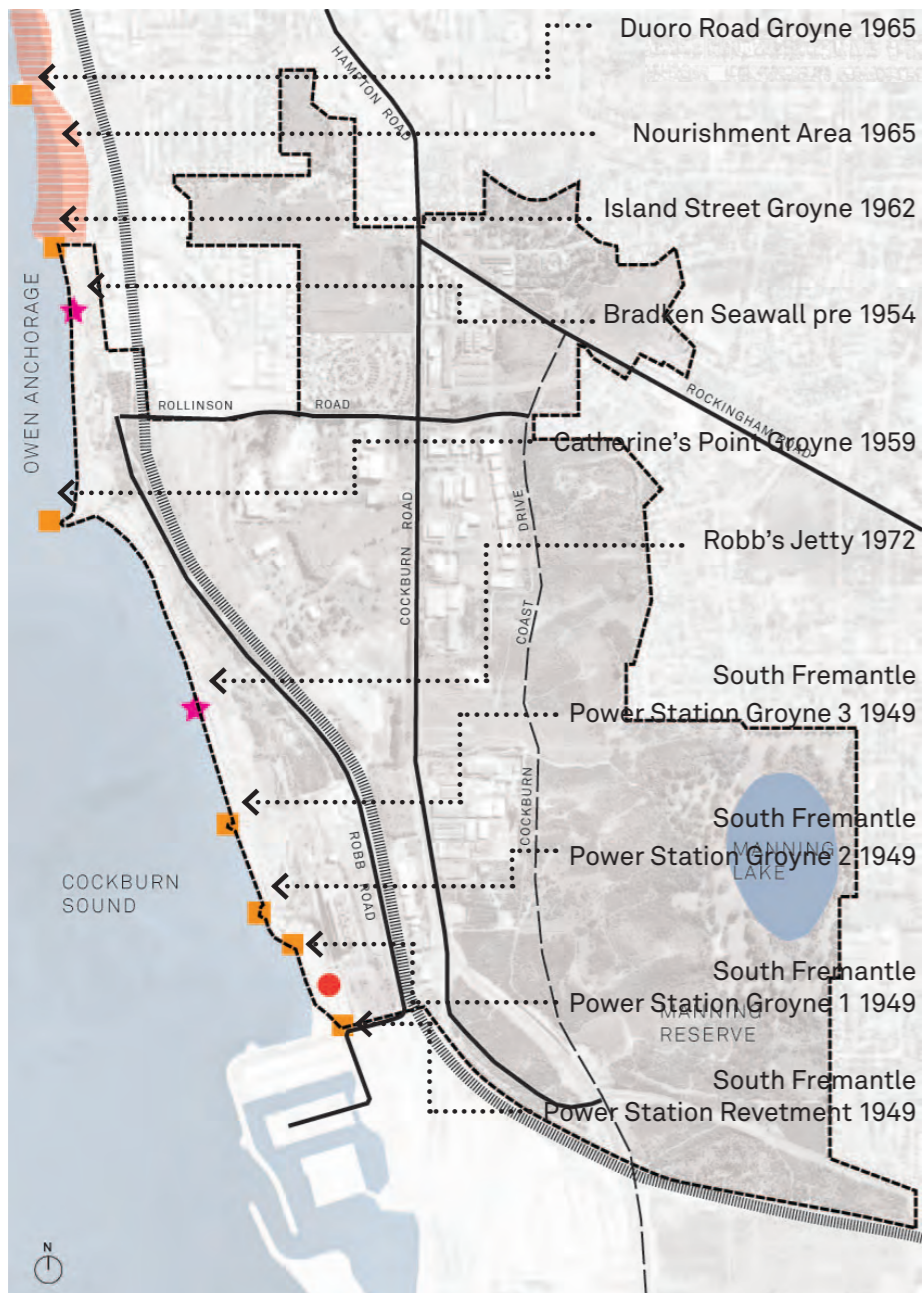


Figure 21\_Oceanography and industrial heritage

## 4.3.13 Cultural Heritage

Figure 22 summarises the range of known European and aboriginal heritage sites located within the project area. A qualified heritage consultant has been engaged to ensure a project wide strategy is developed to appropriately integrate heritage into the development. A comprehensive place making and public art consultant has recently been engaged to prepare a project wide strategy to ensure the unique cultural heritage and place qualities are celebrated throughout the public realm

Preserving the history of the site allows the development to have its own unique identity and ensures the stories and remnants of the past are there to be discovered and to continue to live on.

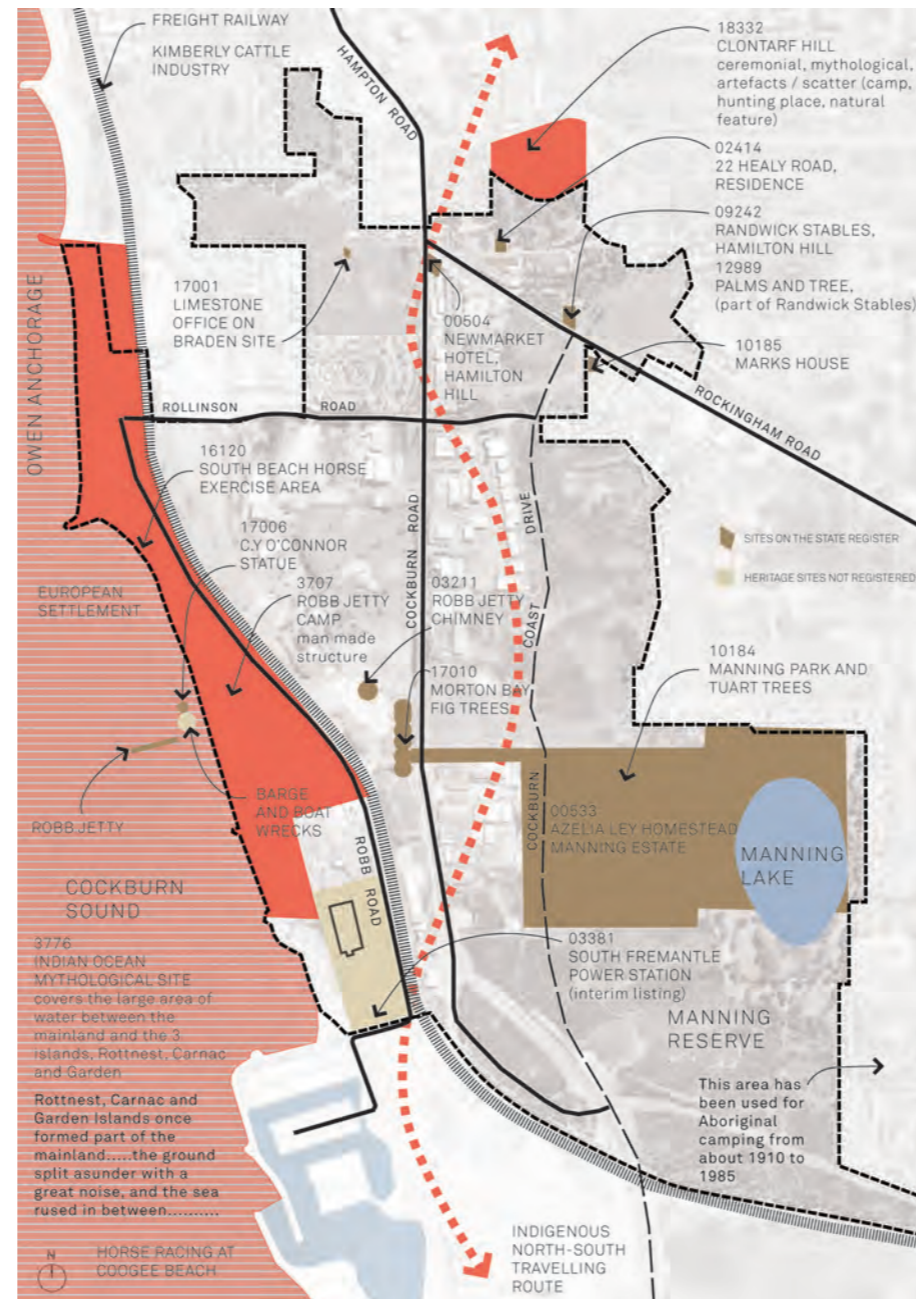


Figure 22\_Natural and cultural heritage

## 4.3.14 View Analysis

While the project area is relatively flat, there are a number of vantage points with views to the coast, in particular from the eastern ridgeline which is afforded uninhibited views of the coast. A considered approach to the future development along the ridgeline is required to ensure it does not unduly impact on views from existing residents east of the site.

Views to a number of other character points should also be maximised including a line of Norfolk island pines in the north, the Robb Jetty Chimney, South Fremantle Power Station and potentially, views to Manning Lake from the ridgeline.

The site is generally isolated from the established residential communities to the east, which provides a unique opportunity to establish height and density.

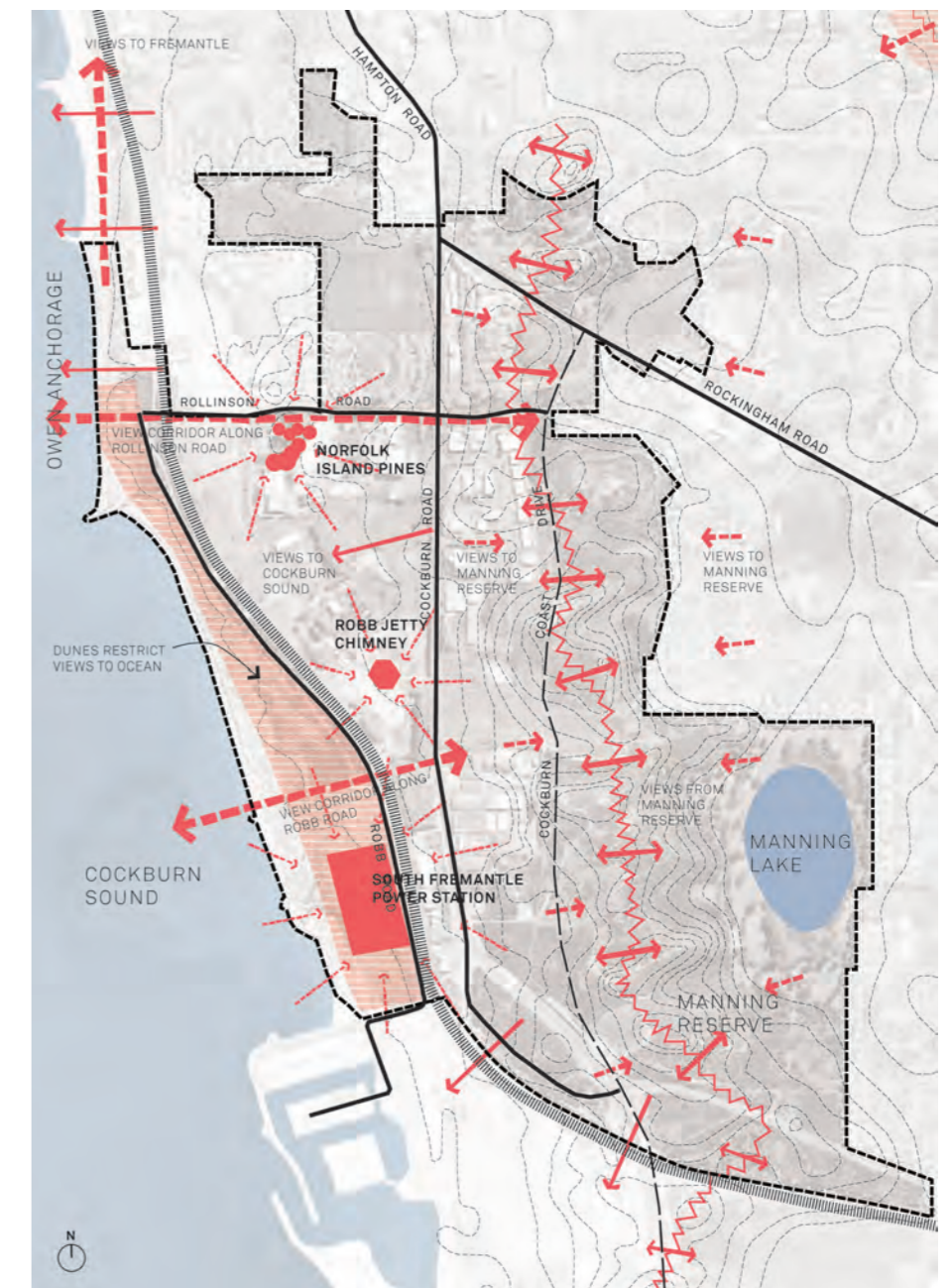


Figure 23\_View analysis

# 4.0 The Place

## 4.4 State Planning Framework

This section describes the principal State level strategic and statutory considerations that directly affect planning and development at Cockburn Coast. As a general rule, State planning policies and strategies inform the development of local government planning instruments. No attempt is made to document every applicable policy.

### 4.4.1 Directions 2031 and Activity Centres State Planning Policy

The highest land use planning document for Perth and Peel is Directions 2031: Draft Spatial Policy for Perth and Peel. It provides the framework for the detailed planning and delivery of housing, infrastructure and services necessary to accommodate population growth up until 2031.

Directions 2031 establishes a hierarchy of activity centres to provide an equitable distribution of jobs, services and amenity. Directions 2031 identifies Cockburn Coast as a District Centre, which is a centre that has a greater focus on servicing the daily and weekly needs of residents.

The Activity Centres policy states that District Centres are to have a minimum density per gross hectare of 20 units and a desirable density of 30 units. District Centres are intended to service a catchment of between 20,000 to 50,000 people.

Cockburn Coast is located in the south west sub region. Directions 2031 anticipates that the south west sub region will accommodate an additional 70,000 people, 41,000 dwellings, 47,000 workforce and 41,000 jobs by 2031. While the expansion of employment in Rockingham, development of Latitude 32 industrial area and continued development of Cockburn Central provide the greatest contribution to the South West sub region employment targets, the geographical location of Cockburn Coast offers the opportunity for employment across strategic categories including Export Orientated Employment, knowledge based industry, and higher order population driven employment.

### 4.4.2 Metropolitan Region Scheme

The Metropolitan Region Scheme has now been amended by transferring a majority of Cockburn Coast from Industrial to Urban to reflect the Cockburn Coast evolving into a mixed use urban development. Refer Figure 24 for changes currently being undertaken to the MRS.

The South Fremantle Power Station site (Lots 2, 3 and 2167 Robb Road) will be transferred to urban deferred, with a requirement to prepare a detailed Master Plan for this site, to ensure that the regional objectives for the Power Station as stated in the District Structure Plan are met. Additionally, the South Fremantle Waste Water Pump Station site is proposed to be reserved for public purposes to reflect its utility use.

The Master Plan for the Power Station site is required to demonstrate the following:

1. Heritage assessment and demonstration of adaptive reuse of the South Fremantle Power Station to a detailed standard - particularly in relation to State Planning Policy 3.5 - Historic Heritage Conservation (Section 6), Planning Bulletin 88 - Historic Heritage Conservation and the Cockburn Coast District Structure Plan (Section 2.5)
2. Consideration of the appropriate use of the foreshore area abutting the Master Plan area
3. Consideration of how the Master Plan site would respond to the possible relocation of the swithyard site (Lot 1 Robb Road)
4. Land ownership details
5. Environmental assessment
6. Coastal processes assessment
7. Infrastructure and servicing, including coastal infrastructure
8. Land use and density
9. Economic impact and commercial assessment
10. Built form and landscape design
11. Detailed transport and parking analysis
12. Implementation options, including collaboration, staging, planning, obligations and incentives.

The Power Station Master Plan, once completed, will enable the lifting of the urban deferred status to transfer the site to Urban to allow for redevelopment.

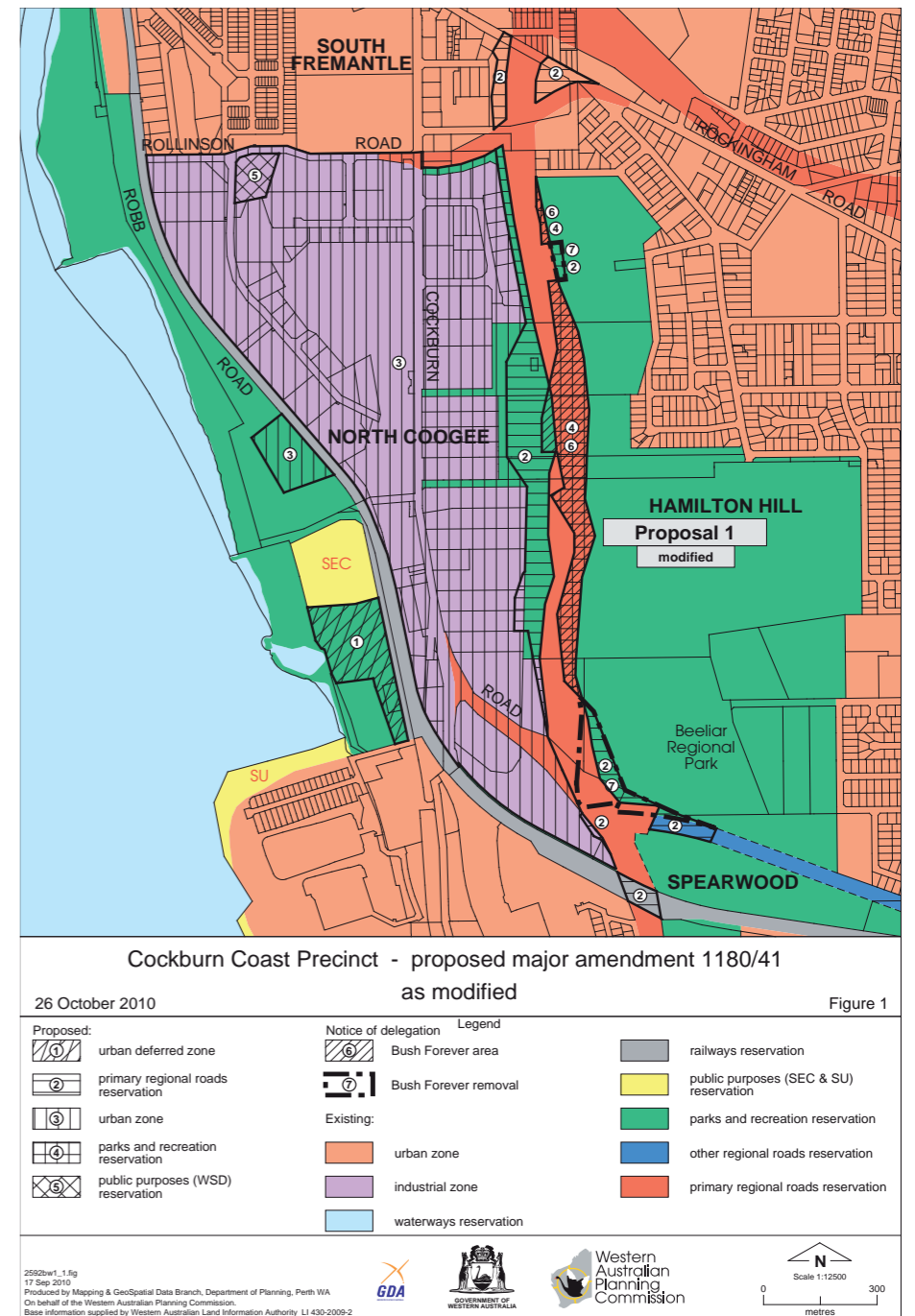


Figure 24\_Proposed Amendment 1180/41 to the MRS

# 4.0 The Place

## 4.4.3 State Planning Policy 2.6 - Coastal Planning Policy

State Planning Policy 2.6 (SPP 2.6) is particularly relevant to the Cockburn Coast project, in that it:

- Sets requirements for calculating coastal physical process setbacks to protect development and land use from physical coastal processes and the effects of climate change
- Limits height of buildings within 300 m of the coast
- Provides guidance relating to development and land use along the beach

The Coastal Physical Setback has previously been defined in a study prepared by Oceanica in 2007 (Figure 25) to inform the preparation of the Cockburn Coast District Structure Plan. This setback line has been endorsed by the Department of Planning. A more recent amendment to State Coastal Planning Policy introduces a new approach to calculating sea level rise, which has an impact on the general guide to calculating the physical setback, with the default setback being increased from 100 m to 150 m. However, the 2007 Oceanica setback line remains as the endorsed setback line, as the revised policy came into affect after the DSP was endorsed and does not apply retrospectively.

Existing and new infrastructure contemplated along the coast will however be assessed against the revised sea level rise figure of 0.9m with regard to the need to build in adaptive measures to cope with sea level rise over a 100 year time frame and in this regard it is the DoP (Coastal Planning) expectation that a Coastal Hazard Risk Assessment and Management Plan would need to be prepared to support local structure planning which clearly sets out care, control, maintenance and management requirements for coastal protection infrastructure along the coastline over a 100 year timeframe. This will be required at the local structure plan stage.

This would need to outline what reinforcements are required to existing and new infrastructure, agency responsibility for undertaking these works and likely costs. This plan would need to be prepared prior to, or concurrently with, the foreshore management plan to ensure that they are not counterproductive.

SPP 2.6 requires that building heights within 300 m of the horizontal setback datum (HSD) be limited to 5 storeys, with 8 storeys being permitted in specific circumstances where:

1. There is broad community support for the higher buildings following a process of consultation
2. The proposed development(s) is suitable for the location taking into account the built form, topography and landscape character of the surrounding area
3. The location is part of a major tourist or activity node
4. The amenity of the coastal foreshore is not detrimentally affected by any significant overshadowing of the foreshore; and
5. There is visual permeability of the foreshore and ocean from nearby residential areas, roads and public spaces.

DSP Part 2 building heights are in accordance with SPP 2.6, with building heights within 300m of the HSD generally being between 3 to 5 storeys, with some prominent building sites at key activity nodes, being permitted up to 8 storeys, such as at the Power Station site, Robb Jetty Main Street and a prominent corner site at the south western end of Rollinson Road.

Further, the plan has been through a detailed consultation process with landowners and key government stakeholders regarding the urban framework and building heights and these heights have been generally agreed through this process.



Figure 25\_2007 Oceanica Coastal Physical Setback Line as endorsed by the WAPC

## 4.4.4 Draft State Industrial Buffer Policy and EPA Guidance

Cockburn Coast contains a number of existing industrial uses, including the Fremantle Cold Stores, Water Corporation Pumping Station and Emplacement Crescent industrial uses. These businesses are likely to remain for many years to come.

While this document assumes a long term transition of these industrial uses to urban, interim buffer arrangements need to be considered. DSP Part 2 has sought to address this issue by generally establishing mixed use development in proximity to existing industrial uses likely to remain for the medium to long term. This arrangement will allow for existing businesses to continue to operate through non-conforming use rights under the Scheme, while new land uses that are not sensitive to the existing industrial operations, such as commercial and showroom development can establish in the interim. A longer term transition to sensitive land uses such as residential may occur, at a point in time that the industrial use has relocated.

In this regard, each Mixed Use area may have specific requirements regarding the type of uses that may be permitted or not permitted. There is currently not a Mixed Use zone under the City's Town Planning Scheme No. 3. Therefore, the local structure plans will need to specifically identify appropriate land uses for each of the Mixed Use areas identified in this document.

Local Structure Plans will identify appropriate buffer and interface requirements in further detail, in accordance with the requirements of the above mentioned policies.

The EPA guidance document requires a 50m buffer to the WaterCorp pump station, where it handles less than 350 l/s. This issue is addressed in further detail later on in the report.

## 4.4.5 Improvement Plan No. 33

Improvement Plan No. 33 (IP 33) was prepared for the Cockburn Coast project area under the provisions of Part 8 of the Planning and Development Act 2005.

The purpose of IP 33 was to prevent inappropriate development within Cockburn Coast while the District Structure Plan was being prepared and subject to additional appropriate statutory and governance arrangements being put in place.

IP 33 recognises that Cockburn Coast has been identified for future urban development, moving away from its historical industrial use, and also recognises that Cockburn Coast is subject to intense development pressure. Therefore, IP 33 provides the mechanism to 'halt' inappropriate development until such time that a robust statutory and governance framework has been implemented to guide future development.

IP 33 also enables the WA Planning Commission to acquire land by agreement or compulsory for future redevelopment, if necessary.

The Improvement Plan came into effect on the 6 June 2006.

# 4.0 The Place

## 4.5 Local Planning Framework

### 4.5.1 City of Cockburn Town Planning Scheme No. 3

A area is primarily zoned 'Industry' and 'Light and Service Industry' under the City of Cockburn Town Planning Scheme No. 3 (TPS 3), with the balance being reserved under the MRS (regional roads, parks and recreation and public purposes). Refer Figure 26. In addition to this zoning, a Restricted Use (R9) is also applicable to the project area. This restricted use classification, restricts the permissibility of land use and development to the following specific industrial uses:

- “(a) abattoirs for the slaughtering of livestock and the processing, packing, freezing and wholesaling of meat, and the carrying on of all processes related thereto, including freezer works and associated stock agistment yards
- (b) the manufacture of by products of livestock slaughtering, including
  - (i) the production of edible offal from the entrails of livestock slaughtered
  - (ii) the rendering of fat
  - (iii) the preparation of skins and leather, including the drying, curing and pickling of animal skins and hides, tanning and fell-mongering
- (c) the processing of rock lobster or other crustacea, shell fish or wet fish including the freezing, the packing thereof for sale and the production and storage of bait to rock lobster fishermen
- (d) the production of any commodity being a direct use of substances resulting from the slaughter of livestock, that from time to time is made possible by technological advancement of increase in scale of production or both if the said production does not contravene any Act or Regulation governing the production of meat
- (e) the manufacture of edible goods.”

It is also understood that an amendment has been initiated to TPS 3 to further restrict land use and development within the project area, in anticipation of the land being rezoned to 'Development' in the near future to require the preparation of local structure plans to guide development.

Regardless, given the existence of Improvement Plan 33, all development within the project area is required to be referred to the WA Planning Commission for determination. Any substantial development that is not consistent with the Vision and objectives of the Cockburn Coast District Structure Plan, is not likely to be approved.

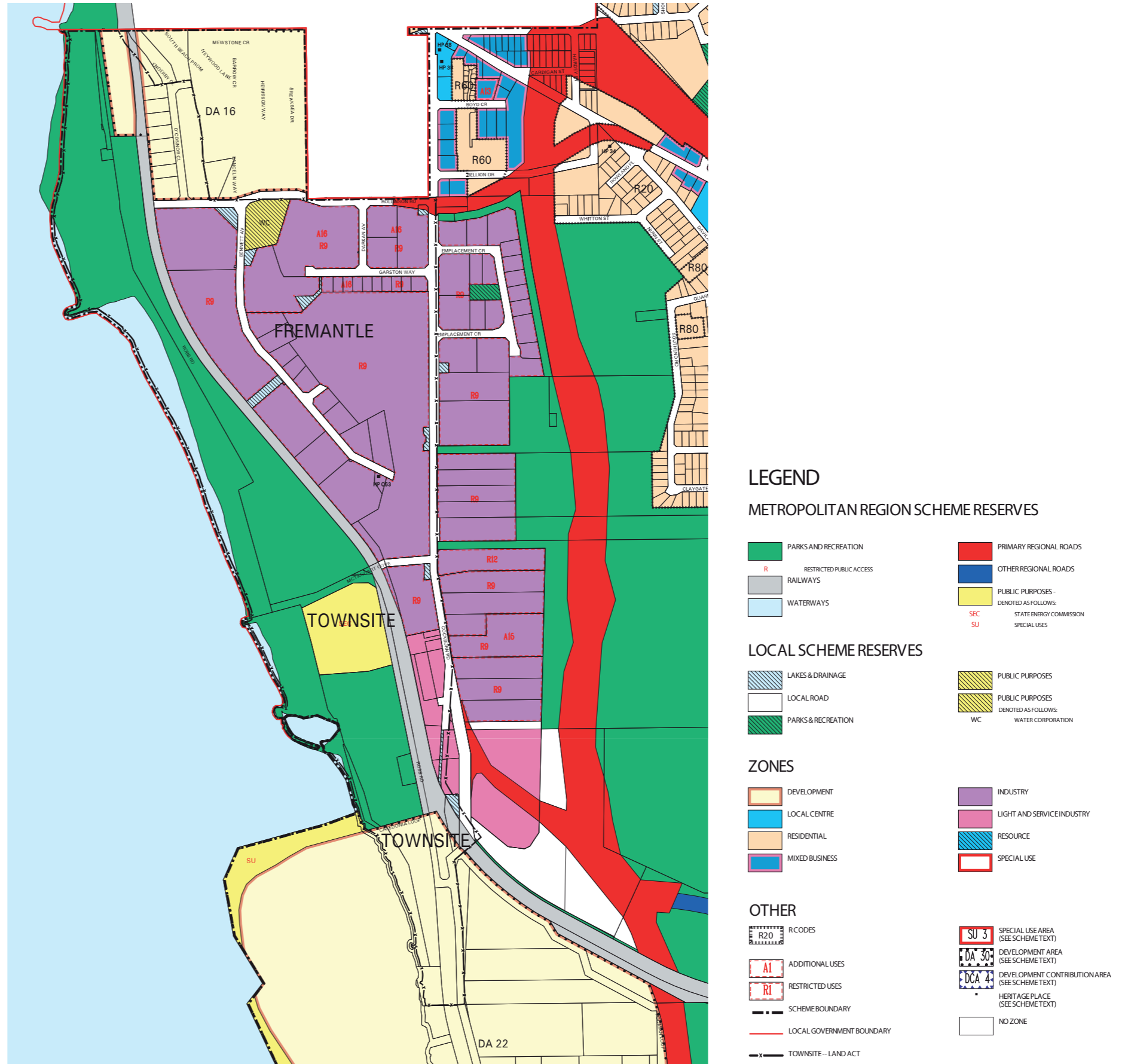


Figure 26: City of Cockburn Town Planning Scheme No. 3