#### \_Appendix P

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Community Development Plan

# The Cockburn Coast Community Plan

FINAL DRAFT December 2011



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The Cockburn Coast Community Plan provides the framework for the delivery of soft and hard community infrastructure for the future residents and visitors of the Cockburn Coast development. Its implementation will ensure people from a diverse range of cultures, income levels, ages, housing tenure, and ability have access to the community infrastructure, facilities, services and programs required to live fulfilling and enjoyable lives in their community.

The Cockburn Coast Community Plan (The Plan) relates directly to the Cockburn Coast Masterplan area and is linked to all other strategies and plans being developed to guide the implementation of the Cockburn Coast Masterplan. Together these strategies will guide the planning and delivery of the coastal development which, in the longer term, will become a thriving community of around 12,000 residents and people engaged in business, industry, service delivery, cultural, recreational and civic pursuits, within a built environment that is respectful of the historical and natural environment.

Importantly, The Plan has referenced current City of Cockburn plans and strategies as well as recognising those Western Australian State Government and Commonwealth of Australia plans, strategies and policies that are relevant to the development of the site.





#### **PURPOSE**

The City of Cockburn has requested the preparation of this community plan as a prerequisite for the design of Local Structure Plans at the Cockburn Coast site. In doing so, the purpose of The Plan is to provide a high level blueprint for the thirty year period of ongoing development at the Cockburn Coast. It includes identifying the contribution of infrastructure, community infrastructure, facilities, services and programs by relevant private and public sector stakeholders. The soft community infrastructure will be captured by Council's Development Contribution Plan 13 - Community Infrastructure (DCA 13) while smaller (hard infrastructure) items such as seating, showers and toilets, will be considered as Public Open Space (POS) enhancements under the proposed North Coogee DCP. These contributions will ensure the livability of the area and in turn support the growth of the community.

Perceptions of a location's livability are subjective. The decision taken by individuals, families and groups to live in a place is based on how well the location and the associated community meets the social needs of that person or persons. People will be drawn to an area initially for one or more of a range of factors; aesthetic, social, economic, environmental or cultural. As living circumstances change people will continue to live in an area while the majority of these social needs continue to be met.

The Plan aims to support the creation of a place that supports its community and all other aspects of life.

#### SCOPE

The Cockburn Coast is a new development within the existing City of Cockburn Local Government Area. The Plan will guide social aspects of the project from its historic agricultural to its current largely industrial usage into home, work place and recreation zones for around 12,000 people.

Landcorp, developers and the City of Cockburn will primarily share the responsibility of implementing the plan. However, developers will play an important role in the delivery of infrastructure as most infrastructure will be outside the scope of the City of Cockburn and Landcorp. The development of partnerships with all stakeholders including the State and Federal government and the private and non-government sectors, will be essential to achieving the long term outcome that is currently envisioned. The Cockburn Coast Community Plan is limited by its preparation prior to the formation of a local community. The Scope of the Cockburn Coast Community Plan includes:

#### PART A: CONTEXT

- A community profile of current and projected demographics and population numbers
- > A review of relevant historical and cultural contextual documents
- An assessment of existing community infrastructure, facilities, services and programs

#### PART B: STRATEGIC FRAMEWORK

- Overview of key areas of community capacity building
- Outline of hard and soft infrastructure requirements based on a gap analysis of existing facilities, services and programs
- Identification of lead and partner areas of responsibility

Not in the Scope of the Cockburn Coast Community Plan are the following:

- Information about the future demography of Cockburn Coast
- Specific details about proposed programs and services
- Information and costings for proposed infrastructure and facilities
- > Final agreements about areas of responsibility
- > Time lines for implementation

#### **ENDORSEMENT**

The Cockburn Coast Community Plan will be endorsed by:

- > The City of Cockburn
- LandCorp

The Community Plan is intended as a living document to be reviewed and updated no less than annually for its lifetime to account for the changing nature of the community.



This Community Plan for the Cockburn Coast was developed by the review and analysis of existing documentation and previous community engagement outcomes in consultation with the City of Cockburn. The research aim was to develop a community profile and gap analysis of existing and planned community facilities and services at the Cockburn Coast in context with the surrounding region.

#### PART A - CONTEXT

#### COMMUNITY PROFILE

The Community Profile was developed using the available quantitative data. That quantitative data included:

- Population data sourced directly from ABS sources and indirectly from City of Cockburn sources
- Information available in current City of Cockburn, WA State Government and Commonwealth of Australia planning and service delivery documents
- > Previous community engagement outcomes

#### ENGAGEMENT WITH CITY OF COCKBURN

Place Partners met with the personnel from the CIty of Cockburn representing the following departments:

- Community Services
- Human Services
- Communications
- Cultural Development
- Community Development
- Strategic Planning

Two meetings were held. The first meeting focussed on establishing the policy context, all relevant documentation and testing a framework for the Cockburn Coast Community Plan with the City of Cockburn. The second meeting involved the presentation of draft strategic directions by Place Partners to gain feedback and input from the City of Cockburn for consideration in the finalisation of the Community Plan.

#### COMMUNITY FACILITIES REVIEW

An audit of community facilities located or planned for within the Cockburn Coast, within a 2-4km radius and regionally. These facilities were mapped on aerial images of the region. An assessment was made as to which services and facilities were provided within each of these catchments and therefore where there are gaps that could potentially be filled at the Cockburn Coast.

#### POLICY AND REGULATORY FRAMEWORK

All documents and policies relevant to the Community Plan were reviewed and the key recommendations tabulated against each community needs area to ensure both current facilities and planned infrastructure were considered by the Community Plan.

#### COMMUNITY NEEDS ASSESSMENT

An analysis of community needs was conducted by comparing the likely community profile with the existing and planned community facilities and services to be provided at the Cockburn Coast. This analysis formed the basis of the strategic directions in Part B.

#### **PART B - STRATEGY**

#### VISION AND OBJECTIVES

The vision for the Cockburn Coast Community Plan has been adopted from the Masterplan to ensure continuity across the project.

#### STRATEGIC DIRECTIONS

Each of the strategic directions builds on the community needs assessment in Part A to articulate the key challenges, opportunities and gaps in services and facilities for each. These provide the framework for future implementation of the Community Plan.

#### FURTHER CONSULTATION

The Community Plan is to be presented to the City of Cockburn for a 2 week review period, prior to finalisation for a public exhibition period.

#### REFERENCES

All documents sourced in preparation of the Cockburn Coast Community Plan are listed in the References.



**METHODOLOGY** 

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The proposal to develop the Cockburn Coast area was tabled in 2005 by the Western Australian Government at a forum that aimed to seek the opinions of the community in designing a future vision for the area. This dialogue provided the foundation for the development of the Cockburn Coast District Structure Plan (DSP), setting out the vision for transforming the site into a mixed use urban community.

The Cockburn Coast District Structure Plan was prepared by the Department of Planning, on behalf of the Western Australian Planning Commission.

Guided by a Steering Committee, comprised of State and local government representation, the plan was prepared with the input of the Cockburn Coast reference group, including landowners, local community members and stakeholders.

In May 2011 the Cockburn Coast Masterplan, a further iteration of the DSP, was delivered. The Masterplan is a comprehensive plan for the site and details how the vision will be delivered. A further three regulatory documents, Local Structure Plans, will be developed to provide more detail for three precincts within the Masterplan area.

#### THE SITE

The Cockburn Coast is a 330 hectare site located on the Indian Ocean approximately 18km south of Perth and 4km south of Fremantle. The majority of the site is within the City of Cockburn Local Government Area (LGA) but its northern end, including the Fremantle Village Caravan Park is located in the City of Fremantle. The City of Cockburn covers an area of 167.5 square kilometres, has a population of 74,472 (ABS 2006) that is expected to grow to 127,885 by 2031 (forecast.id 2009). The projected population at the Cockburn Coast is 10,000 to 12,000 residents.

The Cockburn Coast site falls within the boundaries of four different suburbs. The western half is in North Coogee, the eastern side is part of Hamilton Hill, the very northern part is located in South Fremantle and the south-eastern corner is in the suburb of Spearwood.



Above: Aerial of Cockburn Coast District Structure Plan (DSP) area. (Source: Hassell Cockburn Coast Masterplan).



Above: Cockburn Coast Masterplan area showing the 3 Local Structure Plan (LSP) Precincts, Power Station, Jobb Jetty and Hilltop/Emplacement. (Source: Hassell Cockburn Coast Masterplan).



### REGIONAL LOCAL GOVERNMENT AREAS SNAPSHOTS

An introduction to each of the five regional Local Government Areas (LGAs) adjacent to the Cockburn Coast is found below. This information provides a greater scope and context to the wider community of which the Cockburn Coast site is part.

#### **CITY OF COCKBURN**

The City of Cockburn LGA covers over 165 square kilometres on the Indian Ocean, 22km south of Perth CBD and 8km south of Fremantle. Cockburn has a chain of five lakes that run north to south through the centre of the LGA. City of Cockburn currently has a population of approximately 75,000 and this is expected to be more than 100,000 by 2016. Cockburn currently has about 27,000 dwellings and over 2,000 businesses. The agricultural and ship building industries are currently the largest employers. Given that Cockburn Coast is located within the City of Cockburn it is anticipated that the City of Cockburn will meet many of the needs of the residents of the new development at Cockburn Coast. Many of the closest schools and health centres are located within Cockburn LGA as well as childcare centres and recreational facilities.

#### **CITY OF FREMANTLE**

The City of Fremantle LGA adjoins the northern boundary of the City of Cockburn LGA and the Cockburn Coast site. The LGA covers an area of 19 square kilometres with the Indian Ocean at its west and the Swan River at its north. Fremantle has an approximate population of 28,000 and a total of 12,616 dwellings. The LGA contains Western Australia's major commercial port. It is also home to a 450-bed hospital, which accounts for the largest employment industry in Fremantle, which is health care and social assistance (17.5%). Fremantle has an unique character and is a popular tourist precinct for its architecture, music, art, retail, and cultural events.

#### **CITY OF MELVILLE**

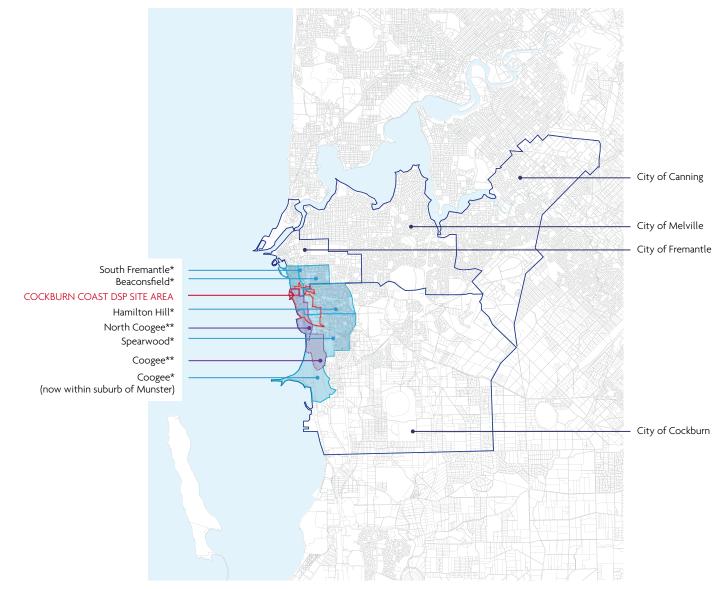
Melville LGA covers an area of 53 square kilometres and adjoins the City of Cockburn to the south, and the Fremantle LGA to the west. The City of Melville LGA has an approximate population of 97,800 and a total of 39,260 dwellings. The city is anticipated to grow to 107,650 by 2016. The city has a total of 773 commercial properties, the regional commercial shopping centre in Garden City, 6 supporting district commercial centres and 29 local shopping centres. Melville has a total of 210 parks and reserves which collectively cover 900 hectares. It also contains 20 playing fields, 2 golf courses, 2 recreation centres, 13 youth centres, 32 community halls and 6 libraries. There are 9 maternal and child health centres, 5 aged persons' recreation facilities, 28 aged persons' housing facilities, a TAFE campus, Murdoch University, 23 preschools, 25 primary schools and 11 secondary schools within the LGA.

#### **CITY OF CANNING**

The City of Canning adjoins the northeast boundary of City of Cockburn and covers a total area of 65 square kilometres. The City of Canning LGA has an estimated population of 87,800 and a total of 27,390 dwellings. Canning is approximately 12km inland. Its northern border is defined by the Canning River with flows into the Swan River. The City of Canning contains 23 primary schools, 5 secondary schools, 1 private school, and 1 special school. The LGA also contains 1 hospital and 3 nursing homes. Recreational facilities in Canning include the Canning River Regional Park, extensive cycle and walk ways, the historic Woodloes Homestead and the Castledare Miniature Railway.

#### **TOWN OF KWINANA**

The Town of Kwinana adjoins the southern boundary of City of Cockburn and covers an area of 120 square kilometres. Kwinana has an approximate population of 25,000 but this is expected to double by 2020. In order to meet this demand the local government will release 1,000 new residential lots each year. The majority of this development will take place within the Eastern Residential Intensification Concept that is located from Anketell to Wellard. The existing Kwinana Industrial Area currently employs 4,800 people directly. Kwinana is also home to the Latitude 32 project, which will be a centre of 10,000 new jobs. The anticipated growth of Kwinana through a number of keynote projects will bring new educational opportunities, improved transportation and new community services.



\* Suburban area 2006 ABS

\*\* Current suburban areas as per City of Cockburn definition of suburban boundaries



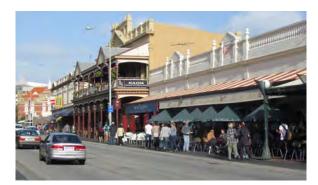
COCKBURN COAST OVERVIEW

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A Community Profile has been developed to inform the Cockburn Coast Community Plan. This profile is limited by the fact that the Cockburn Coast District Structure Plan area is home to little residential population (and no existing residents within the Masterplan area) and has a restricted capacity as a source of information specific to the area. This community profile has been developed using current ABS data (2006) for City of Cockburn, related suburbs and for the wider Perth region. The available information was used to gain an understanding of the demographic groups that are likely to be attracted to live in the Cockburn Coast thus providing some likely projections rather than hard statistics.

The Community Profile information has been organised under the six topics that have been identified to provide the broadest and most succinct coverage of human requirements to live. The topics cover basic needs such as food, shelter and care through to the higher order and creative needs like culture, leisure and recreation.









#### **COCKBURN COAST POPULATION SNAPSHOT**

The following table provides a summary of some basic demographic and social statistics for the City of Cockburn in comparison to the neighbouring suburbs, including the City of Fremantle, and Metropolitan Perth as a whole. A comparison of the statistics shows the City of Cockburn has a comparatively low median age, low unemployment rate and high average household size. The

City of Cockburn also has a relatively high rate of dwelling ownership compared to the Fremantle local government area and greater Perth.

#### Cockburn Coast DSP 2009, Estimated Household Mix

Estimated household	Cockburn coast mix	Cities of Fremantle and Cockburn 2021
Couple with children	14-15%	33%
Couple without children	30%	23%
One parent family	10-11%	10%
Other family	2%	2%
Group households	5%	4%
Lone person households	38%-40%	28%

	Fremantle LGA	South Fremantle	Hamilton Hill	Spearwood	Coogee	Cockburn LGA	Perth
Total population	24,835	2,794	9,257	8,940	4,310	74,472	1,445,078
Median age	41	41	39	39	39	34	36
Unemployment	4.5%	4.6%	4.9%	4.1%	2.4%	3.3%	3.6%
Income (median individual per week)	\$489	\$537	\$378	\$411	\$541	\$501	\$513
Total labour force	12,499	1,520	4,162	4,345	2,232	37,852	730,634
Managers and Professionals	44%	49.9%	23.3%	18.6%	28.3%	24.6%	31.8%
Born overseas	29.6%	33.6%	31.9%	33.0%	34.7%	28.8%	31.3%
Language other than English spoken at home	22.6%	16.6%	29.1%	33.6%	22.9%	22%	20.1%
Technical and tertiary education attendants	7.6%	7.6%	5.3%	4.2%	5.2%	5.3%	6.8%
Average household size	2.2	2.2	2.2	2.5	2.8	2.7	2.5
Dwellings owned/being purchased	56.7%	62.2%	58.0%	68.1%	80.9%	71.5%	67.2%
Rented	33.2%	31.7%	34.8%	23.4%	12.4%	21.3%	24.7%
Persons who volunteer	17.2%	18.3%	11.7%	9.8%	12.9%	12.2%	15.1%

Source: Cockburn Coast Place Making Strategy 2011

#### FUTURE COCKBURN COAST RESIDENTS

It is difficult to predict with any accuracy who will live and work in the area. The project intentions for diversity in the demography and current migration trends may influence a potential community make up. Potential demographic groups within the future population:

- > Empty nesters
- > Renters
- > SINKS and DINKS
- > Professionals and managers
- > Skilled migrants

The DSP projects that the Cockburn Coast's future population is to be more similar to that of Cottesloe and Mosman Park than the LGA. The demographics of these town centres indicate the future demographic of the Cockburn Coast is likely to be:

- Wealthier
- > Older
- > With fewer children
- In professional service jobs or other higher income employment sectors

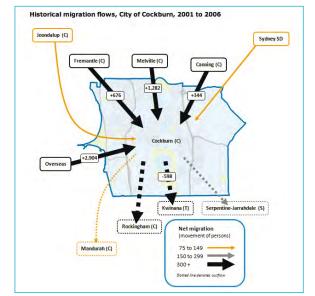
#### **MIGRATION**

The area around Cockburn Coast is currently experiencing rapid growth and this has brought some social change to the area. Understanding migration patterns is important for anticipating the most likely community demographics that will populate the Cockburn Coast.

The City of Cockburn had a population of 78,477 at the time of the 2006 Census and forecasts project an increase in population to 104,939 by 2016 and to 127,885 by 2031. This represents an average population change of 2% every year over the 25 year period. The suburbs of Coogee and North Coogee (as defined by Council) will host a great deal of this anticipated growth with an average rate of growth of 4.7% per annum between 2006 and 2031, growing from 4,294 to 9,244. The speed at which this region will transform itself from a place of industry to primarily residential will provide challenges for the development of authentic place character. A flexible approach will be a required with regard to community development as the community evolves and changes.

During the period 2001-2006 the majority of Cockburn's population growth was a product of international migration which represented 2,904 new residents. The other most significant places of origin were the City of Melville (1,282) and the City of Fremantle (676). Over the same 5 year period 598 Cockburn residents relocated south to Kwinana. In 2001 there were a total of 359 international immigrants to the City of Cockburn, this grew to 558 in 2003, peaked at 664 in 2005 and in 2006 there were a total of 553 arrivals. In recent years the majority of international migrants have come from the Philippines, the United Kingdom and China. Migration from the United Kingdom has been common for many years but until 2005 there were very few immigrants from China and The Philippines.

Internal migration is just a little higher than the national average for those who lived at a different address 1 year ago (16.3% to 15.5%) and those who lived at a different address 5 years ago (41.7% to 40.3%). The diagram above (right) illustrates these migration patterns.



Source: City of Cockburn







#### **EDUCATION & EMPLOYMENT (UNPAID WORK)**

Availability of education facilities and employment opportunities will be fundamental to the economic sustainability of the Cockburn Coast. It is also important to understand the numbers of people who are involved in unpaid caring roles. The plan to attract new demographic groups to the Cockburn Coast will change the education and employment profile of the area.

#### **EDUCATION**

The education levels of people currently living in City of Cockburn are lower than those for both Perth and the whole of Australia. Only 11% of people in Cockburn held Bachelor or higher degrees in 2006, while the figure for Perth was 16.4% and for Australia as a whole it was 15.6%. For diploma or advanced diploma the percentage for City of Cockburn was 7.2% compared to 8.0% for Perth but 7.1% for Australia.

#### Post School Education in City of Cockburn (2006)

City of Cockburn had higher levels of vocational qualifications (trade), 19.8% to Perth 16.8% and Australia 16.7%. Those holding no qualifications in City of Cockburn were 49.4% as opposed to 45.5% for Perth and 47.5% for Australia.

Since 2011, changes in the training and education undertaken by those in the LGA were 5% more people choosing to study management and commerce, and 5% less in the engineering and technology sector. Food hospitality and personal services held steady at 8% and there was a decrease in employment in this sector in the LGA. This may indicate a potential gap in industry training and education for new hospitality and tourism sectors introduced to the Cockburn Coast.

,	•	-							
	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85 years+	Total
Postgraduate degree	9	188	230	217	108	24	8	5	789
Graduate diploma and graduate degree	31	152	185	143	59	15	3	3	591
Bachelor degree	491	1861	1289	851	373	127	49	11	5052
Advanced diploma and diploma	408	946	1126	944	479	157	65	19	4166
Certificate	1542	2815	2803	2265	1340	660	253	45	11723
Level of education not stated	82	177	226	186	144	59	33	9	916
Total	1103	957	1150	1044	756	757	584	209	6560
Total	3666	7096	7009	5650	3259	1821	995	301	29797

#### Highest Level of Qualification Achieved by Total Population Aged 15 Years+

	2006			2001		
	Cockburn	Metro Perth	Australia	Cockburn	Metro Perth	Australia
Bachelor or higher degree	11.0%	16.4%	15.6%	8.2%	13.7%	12.99%
Advanced diploma or diploma	7.2%	8.0%	7.1%	5.6%	6.9%	6.0%
Vocational	19.8%	16.8%	16.7%	19.3%	16.4%	15.8%
No qualifications	49.4%	45.5%	47.5%	57.3%	52.3%	53.8%

Source: ABS 2006 Census

#### EMPLOYMENT

In 2006 the three biggest employment areas for City of Cockburn were manufacturing 27.5%, construction 14.0% and retail 8.9%.

#### **Field of Occupation**

This compared to the Perth Metro area with retail trade 11.5%; health care and social assistance 10.6% and construction 9.9%.

Jobs	Cockburn (2010)	Metro Perth (2010)	Cockburn (2006)	Metro Perth (2006)
Agriculture, forestry and fishing	1.7%	1.1%	1.6%	1.1%
Mining	2.8%	3.4%	1.6%	2.4%
Manufacturing	23.1%	9.5%	27.5%	9.4%
Electricity, gas, water and waste services	4.7%	1.6%	3.4%	1.1%
Construction	13.3%	9.5%	14.0%	9.9%
Wholesale trade	5.3%	4.4%	5.3%	4.3%
Retail trade	9.5%	11.1%	8.9%	11.5%
Accommodation and food services	4.1%	5.8%	3.7%	5.8%
Transport, postal and warehousing	6.2%	5.2%	6.0%	4.5%
Information media and telecommunications	0.3%	1.4%	0.3%	1.9%
Financial and insurance services	0.6%	3.3%	0.6%	3.3%
Rental, hiring and real estate services	1.0%	1.8%	1.3%	2.1%
Professional, scientific and technical services	4.1%	7.7%	4.1%	8.5%
Administration and support services	4.4%	3.3%	3.4%	3.7%
Public administration and safety	2.9%	6.8%	3.1%	6.6%
Education and training	6.9%	7.8%	6.1%	7.5%
Health care and social assistance	5.0%	10.5%	4.1%	10.6%
Arts and recreation services	1.0%	1.6%	1.2%	1.6%
Other services	3.0%	4.0%	3.7%	4.4%

#### UNPAID CARING

The proportion of people involved in caring for others is comparable to the wider Australian community.

24.2% of people care for their own children without pay in City of Cockburn, slightly higher then 21.5% for Perth and 21.3% for Australia. 10.0% of people in City of Cockburn are providing care to family members.

#### Unpaid Work Undertaken (2006)

	City of Cockburn	Metropolitan Perth	Australia
Persons caring for own children without pay	24.2%	21.5%	21.3%
Persons caring for other children without pay	7.7%	7.8%	7.7%
Persons caring for own children or other children without pay	1.2%	1.2%	1.1%
Persons providing unpaid care, help or assistance to family members or others	10.0%	10.1%	11.2%

Source: ABS 2006 Census



#### **HEALTH & ABILITY**

An understanding of the health and ability of the people who are likely to settle in the Cockburn Coast will ensure provision of a living environment that sustains wellbeing. While the plan to attract different groups of people to settle in the area will have some impact on the health and ability profile of the area, there is an expectation that the general statistics are applicable.

#### HEALTH

The median age of the City of Cockburn at 34 is somewhat younger than that of Perth at 36 and the whole of Australia at 37. People in City of Cockburn have more children at a median of 2.0 while for Perth it is 1.9 and for the whole of Australia it is 1.9. While there is no localized City of Cockburn data on health issues, there would be some expectation that City of Cockburn would be approximately reflective of that for Western Australia as a whole which shows the top three health issues are arthritis at 14.2%, slightly lower than the figure for the whole of Australia of 15.2%; asthma at 9.7%, also slightly lower than the whole of Australia figure of 9.9% and back pain/problems higher for Western Australia at 16.1%, compared to 13.8% for Australia.

#### ABILITY

There is no localised data for those caring for a person with a disability, but the Western Australian figure for people with disabilities or health issues is 33.5% of the total population. As such it can be expected Cockburn Coast would reflect this statistic.



#### **Selected Long-Term Conditions**

Selected long-term conditions (2007-08)	Western Australia	Australia
Arthritis	14.2%	15.2%
Asthma	9.7%	9.9%
Back pain/problems	16.1%	13.8%
Deafness	9.8%	10.2%
Diabetes mellitus	3.5%	4.0%
Hayfever and allergic rhinitis	19.8%	15.1%
Heart, stroke and vascular disease	4.4%	5.2%
Hypertensive disease	7.6%	9.4%
Long sightedness	26.4%	25.6%
Malignant neoplasms (cancer)	1.7%	1.6%
Mental and behavioural problems	11.5%	11.2%
Osteoporosis	2.7%	3.4%
Short sightedness	22.7%	22.7%

Source: ABS Community profiles

#### Fertility and Death Rates

	City of Cockburn	Metro Perth	Australia
Median age (2006)	34	36	37
Total fertility rate (2008)	2.0	1.9	1.9
Standardised death rate (2008)	6.0	5.7	6.0

Source: ABS Community Profiles

#### **Disability Status**

Disability Status 2007-08	Western Australia	Australia
Has a profound or severe core activity limitation	4.9%	4.6%
Other disability or restrictive long term health condition	28.6%	31.5%
Has no disability or long term health condition	66.4%	64.0%

Source: ABS Census 2006

#### HOUSING

Cockburn Coast is a medium density residential development that will introduce a different form of housing to the City of Cockburn than is currently available. This is likely to attract the settlement of different people than those currently settling in City of Cockburn.

The majority of dwellings in Cockburn are detached houses (87.7%) that are fully owned (28.0%) or being purchased (43.5%). Cockburn has a higher proportion of detached houses than Metropolitan Perth where 78.1% of dwellings are detached houses, and Australia where 74.8% are detached dwellings. In Metropolitan Perth a higher proportion of homes are fully owned (29.6%) than Cockburn (28%). However, more homes are being purchased in Cockburn (43.5%) than Perth (37.6%) which may result in a more even level or higher proportion of comparative home ownership in the future.

Cockburn 72.7% of households are family households compared to 67.2% in Perth and 67.4% across Australia. It has a lower number of lone households at 19.8% than either Perth (23.6%) or Australia (22.9%). It also has a lower number of group households (2.8%) than Perth (3.6%) or Australia (3.7%).



#### Private Dwelling Types, Tenure Types and Household Compositions (2006)

Dwelling type	Cockburn	Metro Perth	Australia
Detached house	87.7%	78.1%	74.8%
Semi-detached, row, terrace or townhouse	7.6%	11.9%	9.2%
Flat, unit or apartment	3.6%	9.4%	14.2%
Other dwellings	1.1%	0.6%	1.7%

Occupied private dwelling tenure	Cockburn	Metro Perth	Australia
Fully owned	28.0%	29.6%	32.6%
Being purchased	43.5%	37.6%	32.2%
Rented	21.3%	24.7%	27.2%
Other tenure type	0.6%	0.9%	0.9%

Household compositions	Cockburn	Metro Perth	Australia
Family household	72.7%	67.2%	67.4%
Lone household	19.8%	23.6%	22.9%
Group household	2.8%	3.6%	3.7%
Median household size	2.7	2.5	2.6

Source: ABS Census 2006





#### ACCESS (TRANSPORTATION AND AFFORDABILITY)

Access is not simply about transportation. Access can be limited by price point or by the identity of a place and its ability to make you feel 'welcome' despite your economic status. Cockburn Coast needs to provide a high quality transportation network, as well as an invitation to a broad range of user groups and new residents to avoid an 'us vs them' scenario.

#### TRANSPORTATION

The higher density living that is planned for the Cockburn Coast will require the provision of different forms of transport than is currently available in the City of Cockburn. There will be a need for improved pedestrian and bicycle networks as well as and public transport provision. A culture change from private vehicle dependency to other modes will be key.

The figures for method for travelling to work show in the City of Cockburn 66.15% drive a car, and a further 6.37% travel as a passenger in a car compared to 62.33% of people in Perth driving with 5.87% being passengers and 59.36% across Australia driving with 5.86% as passengers. Those who take the bus in City of Cockburn number 4.30% compared to 3.90% for Perth and 2.75% for Australia, while 2.65% walk from home in City of Cockburn compared to 3.53% for Perth and 4.68% for Australia.

#### AFFORDABILITY

The housing market of the City of Cockburn has for a long time provided affordable opportunities for home ownership for families and prospective families from southern Perth. There has been a recent swing of some development towards a market of second and third home buyers, 'empty nesters' and retirees, particularly along the coast. Greenfield sites in the City of Cockburn are expected to be exhausted over the next twenty years which is likely to change population trends and push new development down the coast to Kwinana. Given the coastal location of the Cockburn Coast project, prices are likely to be at the higher end of the market with a demographic mix similar to that of Cottesloe or Mosman Park. This provides a challenge in planning for a diverse of population and provision of access to those of lower socio-economic status.

#### Method of Travelling to Work (2006)

Travel method	Cockburn	Metro Perth	Australia
Train	0.19%	1.99%	3.35%
Bus	4.30%	3.90%	2.75%
Ferry	0.04%	0.03%	0.11%
Tram∕light rail	None	0.01%	0.39%
Taxi	0.13%	0.19%	0.24%
Car, as driver	66.15%	62.33%	59.36%
Car, as passenger	6.37%	5.87%	5.86%
Truck	1.14%	1.07%	0.13%
Motorbike/scooter	0.52%	0.54%	0.67%
Bicycle	0.60%	0.96%	0.99%
Walk	1.46%	2.21%	4.03%
Work from home	2.65%	3.53%	4.68%

Source: ABS 2006 Census

## Housing out of reach for many in Perth

Aleisha Orr September 19, 2011

It takes more than seven times the average annual income to buy a home in Perth, community interest group Australians for Affordable Housing revealed.

AAH spokeswoman Sarah Toohey said a big proportion of the community were unable to buy property and the group wants governments to take action to make housing more affordable.

She said it took 7.1 times the average annual income to buy a home in Perth, which was about average compared to other capital cities, with Hobart being about six times and Sydney about eight times.

But Ms Toohey said taking into account Perth's higher average annual income meant it was costing more for people here to buy property.

Source: smh.domain.com.au

#### **CULTURE (ETHNICITY, LEISURE, RECREATION)**

Cockburn Coast aims to encourage a diverse community built upon the leisure and recreation activities associated with the natural coastal environment. However, the new higher density development and a more concentrated population will offer opportunity for the provision of new community facilities as well as improvements to current forms of leisure and recreation.

#### **ETHNICITY**

The Cockburn Coast development intends to attract a diverse community. Currently the City of Cockburn has a majority of residents born in Australian (64.4%) compared to Perth (61.5%) and Australia (70.9%). The biggest groups born overseas are those from England (7.4%) compared to 9.9% for Perth and 4.3% for Australia; Italy (2.3%) compared to 1.3% for Perth and 1.0% for Australia; and New Zealand (2.0%) compared to 2.4% for Perth and 2.0% for Australia. Those from English speaking backgrounds form the largest groups of immigrants to Cockburn. Those that speak a language other than English at home account for 22% of people.

#### **LEISURE & RECREATION**

The leisure involvement of the people living in the new development of Cockburn Coast will be guided by both the natural assets and the provision of new opportunities for the expression of culture and pursuit of leisure. These leisure activities can be expected to be reflective of the wider Australian community.

National leisure figures suggest that Australians spend most of their leisure time in the home; 10.8% of time each day is spent watching TV, 4.1% listening to the radio, 2.3% reading, 1.3% using audio or visual media, 1.2% hobbies, 0.6 watching DVD's and 0.3% listening to audio media. Of the activity time 0.3% is spent on religious activity and another 0.3% is spent visiting entertainment and cultural venues.

#### **CREATIVE & COMMUNITY ENDEAVOUR**

The City of Cockburn Public Artworks Strategy 2009 aims to foster a sense of community spirit within the district generally and neighbourhoods in particular. However, the area does not appear to have a strong creative community. Only three local arts and cultural groups are noted on the Council website and two are collocated

#### Cultural Background of the City of Cockburn (2006)

	Cockburn	Metro Perth	Australia
Australian citizenship	85.0%	82.7%	86.1%
Persons born overseas	28.8%	31.3%	22.2%
LOTE spoken at home	22.0%	20.1%	21.5%
Catholic	33.8%	24.9%	25.8%
Anglican	17.2%	19.8%	18.7%
No religion	21.1%	22.2%	18.7%
Country of birth			
Australia	64.4%	61.5%	70.9%
England	7.4%	9.9%	4.3%
Italy	2.3%	1.3%	1.0%
New Zealand	2.0%	2.4%	2.0%
Croatia	1.7%	0.3%	0.3%
Portugal	1.5%	Unknown	0.1%

Source: ABS 2006 Census

at the old Council Chambers at Hamilton Hill. The Council supports arts and culture through a program of events throughout the year with a focus on the Summer of Fun program with music events, festivals and community activities.

Predominant activities taking place in the LGA include:

- > Children's and family activities
- > Charity events e.g. Australia's Biggest Morning Tea
- > Local community events e.g. School fund raising
- > Environmental education
- Local sporting competition
- Beach activities and events.

The Council website notes a number of community organisations in the LGA,. These are predominately residents groups, and access to their websites through a community portal provided by Council suggest that many may not be very active. This correlates with Perth wide data that illustrates a generally low volunteering rate of only 12.3% of the population in 2006 compared to a national average of 17.9%.



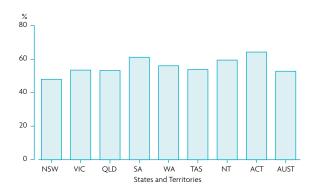
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#### **ENVIRONMENT**

Australians nationally are becoming increasingly conscious of environmental issues and the quality of natural environments. This consciousness has lead to many people specifically choosing to live in a way that reduces their impact on the environment. Providing ways for communities to engage with the care of their environments can provide essential community building projects that benefit people and the natural systems they live within.

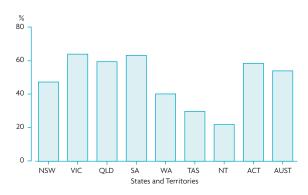
There are no localised figures for the City of Cockburn about the priority people place on the environment, however the figures for Western Australia suggest that somewhat less than 60% of people think the natural environment is declining, and 40% decreased their water use in 2007-8. It is likely those settling on the Cockburn Coast will be equally as concerned about environmental issues as the wider Western Australian community.

#### Proportion of Adults Who Reported the Natural Environment was Declining 2007- 08



Source: ABS 2007-08 Environmental views and behaviour study

#### Proportion of Adults who Decreased their Water Consumption 2007-08



Source: ABS 2007-08 Environmental views and behaviour study





The Cockburn Coast is a new urban development site. Its heritage as a post industrial site, its disconnection from its inland surrounds by Beelier Park and new development to its north and south has resulted in limited opportunity or necessity for community facilities to date. It is expected a community with a population of 12,000 people will be living there in thirty years time. In terms of Community Facility provision, the Cockburn Coast site will become a focal point for population of the new development, but also, due to proximity, to the populations north and south of the new development site. The combination of these three groups will result in a population of approximately 18,000 using the facilities that are provided in the new site. This is comparative in terms of population to a medium sized town.

Responsibility for provision of each community facility will rest with the appropriate partner or another negotiated party. Providers of community facilities could include, but not be restricted to:

- > LandCorp
- > City of Cockburn
- > WA State Government
- Federal Government
- Private sector
- > Non-government sector

To understand the infrastructure and service delivery needs of the future population living on the Cockburn Coast, a review was undertaken of what is currently delivered on the Cockburn Coast, within a 2-4 kms distance of the Cockburn Coast and then, where appropriate, within the region.



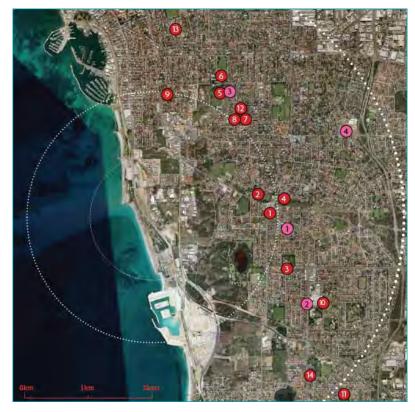






#### **EDUCATION AND CHILD CARE**

Within the Cockburn Coast development area, the need for a primary school has been identified. The Cockburn Coast is serviced by secondary schools within a 2-4km radius and will be serviced by Murdoch University at the regional level.



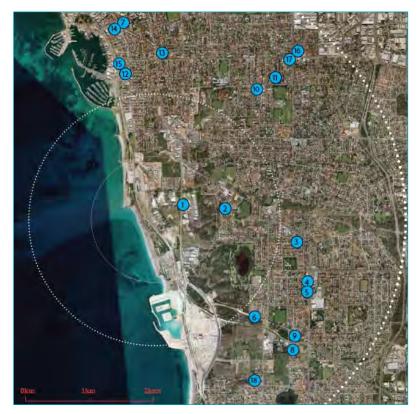
### What does childcare and education delivery look like currently?

	Cockburn Coast	2-4kms	Regional
Childcare		√	
Primary Schools	√ (planned)		
High Schools		√	
TAFE		√	
Murdoch University			$\checkmark$

Educ	ation establishments		
1	New Life Christian College	8	Southwell Primary School
2	Kerr Street Community School	9	Beaconsville Primary Intensive Language School
3	Pheonix Primary School	10	Jess Thomas Kindergarten
4	Port School (Secondary)	11	Newton Primary School
5	South Fremantle Senior High School	12	Winterfold Primary School
6	Challenger TAFE	13	Fremantle Primary School
7	Christ the King School	14	St Jerome's Primary
Child	care		
1	Early Learning Centre, Hamilton Hill	3	Little Woodpeckers Child Care Centre
2	Lefroy Road Childcare Centre	4	Teddy Bear Corner

#### **HOSPITALS & HEALTH CENTRES**

There are a range of services within 2-4 kilometres of the site and a hospital currently serving the site in a regional capacity.



### What does health service delivery look like currently?

	Local to Cockburn Coast	2-4kms	Regional
Hospital			√
Medical		$\checkmark$	
Dental		$\checkmark$	
Allied Health		$\checkmark$	
Complementary Health		√	
Ambulance Services		√	
Child Health Centres		√	

Hosp	vitals and Health Centres		
1	Colonics at Inside Out Health Lounge	10	Fremantle Family Doctors
2	Profession Counselling and Psychotherapy Services	11	Grove Physiotherapy
3	Spearwood Dental Clinic	12	South Fremantle Health and Counselling
4	Pheonix Medical Centre	13	Lifecare Fremantle Physiotherapy
5	Cockburn Chiropractic Centre	14	Wellbeing Chiropractic
6	Villa Dalmacia Aged Care Facility	15	Essence Physiotherapy
7	Fremantle Hospital and Health Service	16	Hilton Medical Centre
8	Elite Podiatry	17	Cadd Street Dental Surgery
9	Spearwood Physiotherapy Clinic	18	Coogee Chiropractic



#### PARKS, RECREATION, CULTURAL & TOURISM

Parks, recreation culture and tourism provide essential catalysts for community members to connect around common interests.

#### PARKS & RECREATION

The Cockburn Coast has an abundance of natural assets that form a basis for passive leisure and recreation, or provide the infrastructure for active recreation. This strength can be increased with additional community facilities and the enhancement of current facilities.

There are a broad range of recreational opportunities already existing on site including:

- > Dog walking
- Jogging
- > Sand play
- > Horse riding
- Surfing
- > Swimming
- Fishing

Key recreational facilities on site include:

- > Beaches
- > Dunes
- > Manning Park
- > Beeliar Regional Park
- > Dog parks

Beyond the site, there are a broad range of recreation, parks, tourism and cultural facilities as shown in the map on the facing page.

#### **CULTURE & TOURISM**

There is currently a range of significant cultural sites for the Nyungar People on Cockburn Coast. There are also a number of early European settlement sites of heritage significance that are either currently attracting tourists or have the potential to attract tourists. Public art works also exist on site including the C Y O'Connor statue which is well known by the local community and tourists alike.

#### Nyungar People

- Indian Ocean mythological significance
- Campsites North Lake City of Cockburn
- Campsites Bibra Lake City of Cockburn
- > Campsite Robb Jetty Cockburn Coast
- Clontarf Hill important ceremonial, mythological, & artefact site, hunting place and natural feature

#### European

#### Interim Listing on State Heritage Register

- > South Fremantle Power Station
- Azelia Homestead
- Robb Jetty Chimney
- Newmarket Hotel
- > Randwick Stables
- > South Beach horse exercise area

#### Other sites

- Owen Anchorage
- Robb Jetty
- > Afghan camps at Davilak
- > WWII gum emplacements & groups of trees

#### Off shore

- > 2 shipwrecks
- Bronze statue CY O'Connor

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#### Recreational

- 1 Wally Hagan Basketball Stadium
- 2 Spearwood Dalmatinac Club
- 3 Cockburn City Soccer
- 4 Cockburn Institute of Dance



- Cockburn Bowling and Recreational Club
- Fremantle United Soccer and Recreation Club
  - Joe Cooper Recreation Centre

Marin	e Recreation
1	South Beach
2	Coogee Marina
3	Fishing Boat Harbour
4	Success Harbour
5	Challenger Harbour
Water	rways
	Manning Lake
	The Coast
	Market Garden Swamp
Touris	m
1	Fremantle Village Caravan Park
2	On Tap Watersports
3	Fishing
4	Coogee Beach Holiday Park
5	Fremantle Chocolate Factory
6	Little Creatures Brewery

Parks			
1	Wilson Park	16	Gerald Reserve
2	Hollis Park	17	Dubove Park
3	Dixon Park	18	Eliza Park
4	Davilak Reserve	19	Goodchild Park
5	CY O'Connor Reserve	20	Wheeler Street Reserve
6	Manning Park	21	Isted Reserve
7	Dalmatinac Park	22	Enright Reserve
8	Manning Lake Bushland	23	Hobbs Park
9	Beale Park	24	Baker Square
10	Peace Park	25	Parmelia Park
11	Olive Tree Park	26	Glen Jones Oval
12	Watson Reserve	27	Bruce Lee Oval
13	Edwardes park	28	Hilton Park
14	Interim Reserve	29	Stevens Reserve
15	Macfaull Park		



#### **GENERAL COMMUNITY**

There are currently no community facilities or service delivered on the Cockburn Coast. Within the 2-4 kilometre distance there is a limited provision of facilities currently available to provide services to the Cockburn Coast community. However, it is unclear what capacity the current facilities have, if any, to address increased demand as the Cockburn Coast development unfolds.



#### What is currently available?

Community Facilities	Local to Cockburn Coast	2-4kms	Regional
Centrelink		√	
Library		$\checkmark$	
Coogee Community Centre		√	
Cockburn Seniors Centre		√	
Police and Citizen's Youth Clubs		V	
Ashronia Community Services		√	

Emergency Services	Local to Cockburn Coast	2-4kms	Regional
Cockburn Police Station		√	
Hilton Hill Police Station		√	
City of Cockburn Services	√		
Ambulance		√	
Fire Services		√	

Welfare and safety					
1	Spearwood Centrelink	1	Cockburn Police Station		
		2	Hilton Police Station		
Re	Retail				
1	Hamilton Hill Shopping Plaza	3	Phoenix Shopping Centre		
2	South Fremantle				
Community centres and libraries					
1	Ashronia Community Services	4	Cockburn City Council Chambers		
2	Cockburn Seniors Centre	5	Coogee Community Hall		
3	Spearwood Public Library	6	Police and Citizen's Youth Clubs		

Art galleries and museums				
1	Azelia Ley Homestead Museum			
Train station				
1	South beach (Closed)			



In order to develop an understanding of the regulatory and policy context that surrounds the Cockburn Coast Community Plan, a review of currently available Western Australian State and City of Cockburn Local Government Planning documents was undertaken.

The following provides a brief summary of the key planning documents reviewed. Other documents reviewed include:

- > City of Cockburn Community Consultation (City of Cockburn)
- > Cockburn Strategic Plan 2006-2016 (City of Cockburn)
- > Public Artwork Strategy 2009 (City of Cockburn)
- Greenhouse Gas Emission Reduction Strategy 2011-2020 (City of Cockburn
- > WA Health (WA State)
- > Sport Facility Plan (WA State)
- > North Coogee Foreshore Management Plan (City of Cockburn)

#### STATE PLANNING POLICY 3.6 - DEVELOPMENT CONTRIBUTIONS FOR INFRASTRUCTURE (SPP 3.6)

The SPP 3.6 sets out the principles and considerations that apply to development contributions for the provision of infrastructure in new and established urban areas. It also outlines the form, content and process to be followed in considering such provisions.

#### STATE PLANNING FRAMEWORK POLICY

The State Planning Framework Policy sets out the key principles relating to environment, community, economy, infrastructure and regional development which should guide the way in which future planning decisions are made. It also provides a range of strategies and actions which support these principles generally and for each of the ten regions of the State.

#### **DIRECTIONS 2031 AND BEYOND**

Planning WA recently released Directions 2031, a new strategy for land use planning, for public comment. It takes up where the previous government's Network City left off. A pivotal moment in planning, the 2004 policy produced a range of aspirational ideas for the city's future. Directions 2031 moves into the area of more measurable goals, although it falls short on detail.

Directions 2031 and Beyond provides the highest level of strategic metropolitan planning to guide the development of more detailed polices, strategies and plans. Due to the complexity of strategic planning for the metropolitan area, sub-regional strategies are required to provide guidance at the local level. Sub-regional strategies address issues that extend beyond local government boundaries and that require a regional response, as well as commonly shared issues such as provision of housing choice and affordability. Medium and long-term infill and greenfield housing targets are set in Directions 2031 to ensure the city's connected growth beyond 2031. These targets include a 50% improvement on current infill residential development trends and a 50% increase in the current average residential density.



#### DRAFT OUTER METROPOLITAN PERTH AND PEEL SUB-REGIONAL STRATEGY

The Draft Outer Metropolitan Perth and Peel Sub-Regional Strategy forms an integral part of the Directions 2031 vision. It provides information about the levels of expected population growth by local government area and highlights development opportunities and increased densities in greenfield areas throughout the five outer sub-regions of north-west, north-east, south-east and south-west metropolitan Perth and Peel. Together with the draft Central Metropolitan Perth Sub-Regional Strategy, this strategy also promotes the achievement of the Directions 2031 housing targets.

### CITY OF COCKBURN TOWN PLANNING SCHEME NO. 3 (TPS NO.3)

The TPS No.3 statutory legal framework for development within the City of Cockburn. It sets out the long term planning directions for the City, including zoning and other provisions, and also provides for general policies relating to matters relevant to the TPS No.3.

### CITY OF COCKBURN DEVELOPMENT CONTRIBUTION PLAN 13 (DCA 13)

In accordance with SPP 3.6, the City of Cockburn introduced DCA 13 that applies to all land within the City to be subdivided or developed for residential, rural residential or resource zone purposes. The DCA 13 also identifies what community infrastructure qualifies for contribution and how much contribution is required.

#### NORTH COOGEE DCP

At the time of this report the North Coogee DCP was in final stages of assessment and as such was yet to be exhibited for public comment or approved as Council policy. As the development of the North Coogee DCP has been informed by the DCA 13, it is envisaged that the North Coogee DCP will contain all physical (hard) infrastructure and public open space directions for the Cockburn Coast.

#### DISTRICT STRUCTURE PLAN

The Cockburn Coast District Structure Plan (DSP) guides land use planning in the North Coogee area, and aims to provide for sustainable development, while protecting and enhancing the area's distinctive heritage and landscape. The plan is the first step in establishing a detailed land use framework for the Cockburn Coast area.

#### INTEGRATED TRANSPORT PLAN (ITP)

The Cockburn Coast Integrated Transport Plan (ITP) provides a benchmark in integrated land use and transport solutions and further refines the provision of transport infrastructure at the Cockburn Coast.

#### DISTRICT WATER MANAGEMENT STRATEGY

The District Water Management Strategy has been prepared for the DSP and includes the key design principles relating to the management of water quality, quantity and conservation.

#### A PLAN FOR THE DISTRICT 2010 - 2020

The Plan for the District identifies this 'needs' based infrastructure, as well as the growth in service programs that are required to support its provision throughout the Cockburn Coast LGA.

#### SPORT AND RECREATION STRATEGIC PLAN 2009

The Sport and Recreation Strategic Plan is a strategic approach to get more Western Australians physically active, to resource and equip sport and recreation providers; to support talent development and achievement in sport; to promote sound infrastructure planning and sustainable facility provision; and to provide affordable recreation camp experiences.

#### SUMMARY OF THE REVIEW OF PLANS

A review of all current Western Australian State and City of Cockburn plans and strategies, together with those prepared for the Cockburn Coast development, was undertaken to help in the identification of future social needs for the Cockburn Coast development.

A summary of findings that are applicable to the Cockburn Coast site is provided in the table below:

No.	Needs Area	Identified Requirement	Plan/Strategy	Constituency	Themed Objective	
1.	Health	<ul> <li>A new Fiona Stanley Hospital</li> <li>Upgrade of Fremantle Hospital to provide mental health, aged care and rehab services</li> </ul>	WA Health	WA State	A Healthy Community	
		<ul> <li>A GP Super Clinic</li> </ul>	City of Cockburn Community Consultation	City of Cockburn		
2.	Education	<ul> <li>Expanded educational options</li> <li>A well informed community</li> </ul>	Cockburn Strategic Plan 2006-2016	City of Cockburn	A Learning Community	
3.	Caring	<ul> <li>Cost effective community services</li> <li>Support community in which people feel belong, connection and contribution</li> </ul>	Cockburn Strategic Plan 2006-2016	City of Cockburn	A Caring Community	
		<ul> <li>&gt; Embrace difference</li> <li>&gt; Support the vulnerable</li> <li>&gt; A community in which people can facilitate positive change in their lives and the lives of others</li> </ul>	New Directions for Community Development Service Unit	City of Cockburn		
		<ul> <li>Social diversity/integration</li> <li>Universal access design</li> </ul>	District Structure Plan	City of Cockburn	-	
4.	Safety	<ul> <li>Maximise safety and well-being</li> <li>Use of Crime Prevention through Environmental Design Principles</li> </ul>	District Structure Plan Integrated Transport Plan	City of Cockburn Cockburn Coast	A Safe Community	
5.	Housing	<ul> <li>Site responsive design</li> <li>High levels of connectivity</li> <li>Diverse housing form/dwelling type</li> <li>Range of housing affordability options</li> </ul>	District Structure Plan	City of Cockburn	A Community with Innovative Housing	



No.	Needs Area	Identified Requirement	Plan/Strategy	Constituency	Themed Objective
6.	Economic	<ul> <li>A strong financial position for City of Cockburn</li> <li>Vibrant and diverse economy</li> <li>High value employment</li> </ul>	Cockburn Strategic Plan 2006-2016	City of Cockburn	A Financially Viable Community
		<ul> <li>Diversity of scale of employment base</li> <li>Promote employment opportunities</li> <li>Promote economic development</li> <li>Best practice IT and telecommunications</li> <li>Maximise public benefit from expenditure</li> </ul>	District Structure Plan	City of Cockburn	
7.	Transport	Comprehensive Transport Network	Cockburn Strategic Plan 2006-2016	City of Cockburn	An Accessible Community
		<ul> <li>&gt; High speed/frequent public transport</li> <li>&gt; Access to public transport</li> <li>&gt; Maximize alternate modes of transport</li> </ul>	District Structure Plan Integrated Transport Plan	City of Cockburn City of	
8.	Heritage, Culture and Leisure	<ul> <li>Maximise alternate modes of transport</li> <li>Recognition of cultural and historical precedents</li> </ul>	Cockburn Strategic Plan 2006-2016	Cockburn City of Cockburn	A Creative, Diverse
		<ul> <li>Public Art reflecting distinct neighbourhoods</li> <li>Public art reflecting spirit and diversity</li> <li>Public art celebrating built and natural environments</li> </ul>	Public Artwork Strategy 2009	City of Cockburn	Community
		<ul> <li>Interpret sites of significance;</li> </ul>	District Structure Plan	City of Cockburn	
		<ul> <li>Celebrate Diversity</li> </ul>	New Directions for the Community Development Service Unit	City of Cockburn	
9.	Recreation & Open Space	<ul> <li>Surf Life Saving Club/Community Facility</li> <li>Public 9 Hole Golf Course</li> </ul>	A Plan for the District 2010- 2020	City of Cockburn	An Active Community
		<ul> <li>Redevelopment of Coogee Surf Club</li> </ul>	Sport & Regional Strategic Plan	WA State	
		<ul> <li>Sports Oval</li> </ul>	Sport Facility Plan	WA State	
10.	Environment	<ul> <li>Minimal Environmental impacts from transport</li> <li>Attractive landscape</li> <li>Integrated environmental management</li> <li>Effective remediation programs</li> <li>Advanced waste recycling</li> </ul>	Cockburn Strategic Plan 2006-2016	City of Cockburn	An Environmentally Sustainable Community
		<ul> <li>Sustainable Planning and Development</li> <li>Efficient settlements</li> <li>Efficient use of resources</li> </ul>	Greenhouse Gas Emission Reduction Strategy 2011- 2020	City of Cockburn	
		<ul> <li>Upgrade Cockburn Coast foreshores</li> </ul>	North Coogee Foreshore Management Plan	City of Cockburn	
		<ul> <li>Maximise energy efficiency</li> <li>Respond to climate change</li> <li>Maintain biodiversity</li> </ul>	District Structure Plan	City of Cockburn	
		<ul> <li>Maximise water efficiency</li> </ul>	District Water Management Strategy	City of Cockburn	



The following Community Needs Assessment analyses the data provided by the Community Profile and Facilities and Services Review to identify key gaps and needs for the future community of the Cockburn Coast. This analysis considers both existing assets, and those planned by the City of Cockburn through their Plan for the District 2010-20.

#### GAPS IN FACILITIES AND SERVICES PROVISION (2.4KM RADIUS)

#### GAPS CURRENTLY PLANNED FOR

- > Sports Oval
- > Primary School

#### OTHER GAPS

- > University (but served regionally)
- Hospital (but served regionally)
- Public transport access to secondary schools and university

### GAPS IN FACILITIES AND SERVICES ONSITE

- General community services and facilities
   i.e. local community centres, library,
   Centrelink and welfare services
- > Lack of physical recreation infrastructure
- Lack of amenity i.e. water fountains, playgrounds, shelter



#### PLANNING FOR THE DISTRICT

# REGIONAL, SUB-REGIONAL & LOCAL COMMUNITY AND CIVIC INFRASTRUCTURE

The following map locates the key community and civic infrastructure works identified by the Cockburn Plan for the District 2010-2020 in relation to the Cockburn Coast District Structure Plan site.

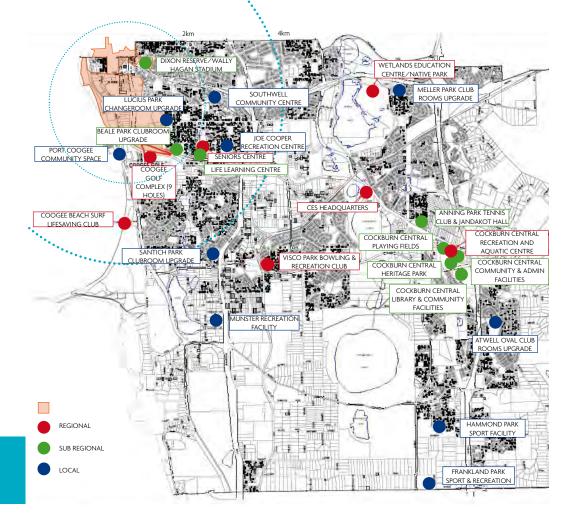
In determining community infrastructure required at the Cockburn Coast, we considered the development site catchment, and also the catchment of other facilities planned in the region. The Plan for the District 2010-20 only considers the next 10 years of service provision, whilst at Cockburn Coast we are planning for 2040. There is a need to be proactive and start the planning process early to ensure quality of life and wellbeing for the Cockburn Coast community as it evolves in the future.

# CATCHMENTS FOR COMMUNITY INFRASTRUCTURE

Population thresholds for community infrastructure items are defined by the City of Cockburn in accordance with DCA 13.

The current City of Cockburn's 'Plan for the District' and 'Sports and Recreation Plan' took these thresholds into account for future development of the Cockburn Coast with a projected population of 10,000 - 12,000 people. The identified need was for one active playing field and associated club rooms.

At a local level it has been acknowledged that there will likely be a need for a community centre/ space for the Cockburn Coast in line with the local community space proposed for Port Coogee (1,000 sqm). This document considers additional community infrastructure that will be required to meet local needs and expectations.



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# ANALYSIS OF THE COMMUNITY PROFILE & FACILITIES REVIEW

The analysis of the Community Profile and Facilities Review has identified the following key social needs for the Cockburn Coast.

#### **EDUCATION & CHILD CARE**

While it is expected that the Cockburn Coast will attract single professionals, students, couples without dependants and retirees, it is important that provision be made for children to attend child care and school within the development site. There will undoubtedly be people with children who choose to settle in the area, and given the demographics being attracted to the area, in subsequent years there will be singles who marry and have children, and couples initially without children who also have a family.

Localised child care and school facilities are an expectation of families and also an attraction for a development. While it cannot be expected that a high school will be provided initially the proposed population for the area would suggest there may be a need for additional high school provision in the area in the longer term. Initially however, there will need to be adequate public transport linkages to accommodate high school students travelling to schools nearby. The plan to attract young people, retirees and couples without dependants to the Cockburn Coast also raises the need for the provision of facilities to allow for the provision of training, adult learning and life long learning opportunities for the area.

#### **HEALTH & HOSPITALS**

There are some facilities within driving distance of the Cockburn Coast and access to a hospital within the region. The expectation is that primary health care in the form of medical practices, together with dental services and allied health care, will be available within the local area. The urbanised nature of the Cockburn Coast development will be a further incentive to access these services in the immediate area, preferably within walking or public transport distance. Retirees and other older people are especially keen to have local access to health services. The other service which needs to be considered is the availability of an ambulance service to the site, to enhance access to the regional hospital.

#### PARKS, RECREATION, CULTURAL & TOURISM

The Cockburn Coast has many natural assets that encourage recreation and leisure activities. There are also many Nyungar and Early European heritage sites and attractions that will provide leisure experiences for people. There are also several key facilities that require major regeneration before they can be utilized to their full potential. These include Robb Jetty and the South Fremantle Power Station. To cater for the expected population increases there will need to be additional recreation facilities provided, including the planned Community facility at Catherine Point, a sports oval and club rooms, and the redevelopment of the Coogee Surf Club. These facilities will be provided through private arrangements.

The changing demographic of couples, singles, and retirees will also bring the opportunity for increased provision of cultural services such as performance arts, visual arts and historical displays, all of which will provide challenges in terms of provision of appropriate facilities. Longer-term goals should be set to ensure the Cockburn Coast has the facilities that support a diverse range of cultural activities for the diverse community it is hoping to attract.

#### **GENERAL COMMUNITY**

The provision of community centres/spaces at the Cockburn Coast will be important capacity building programs to ensure community cohesion. There will need to be some specific provision for youth and children in the community as well as seniors and others with special needs.

Fire and police services will be required on the Cockburn Coast and will need facilities out of which to operate. Other community requirements will include services and related facilities provided by State and Federal Government such as welfare, disability services, aged care and children's services.



#### **ANALYSIS OF COMMUNITY NEEDS**

A detailed analysis of the Community Needs of the Cockburn Coast indicates the following will be required to support a sustainable, cohesive and viable community in the new development site.

A Healthy & Active Community	An analysis of the community needs around health care provision has shown that there is a requirement to provide services and facilities to meet people's primary healthcare and acute health care needs. In addition it is recognised that provision of quality recreation and open space facilities and services will contribute to the health and well being of the local community members. This will encourage – A Healthy and Active Community.
A Learning Community	Education needs of the community have been articulated in terms of provision of schools and child care together with the transport linkages which will provide access to the high schools, TAFE and universities in the nearby regions. These, together with the provision of education and training opportunities for people of all ages, will create – A Learning Community.
A Caring and Safe Community	Caring for the vulnerable in terms of provision of facilities and services for people with disabilities, the aged, and children together with ensuring people feel protected in their community will lead to – A Safe and Caring Community
A Community with Innovative & Sustainable Homes	The Cockburn Coast will provide a higher density form of housing than that provided in surrounding areas. This will create an unique urban living experience but will also provide an opportunity to respond innovatively to the community housing needs. Environmentally friendly features, and accessible housing, both physically and in affordability terms will ensure – A Community with Innovative and Sustainable Housing

A Economically Sustainable Community	The higher density urban living spaces together with the natural and heritage resources of the Cockburn Coast will create an economic environment for new and exciting business opportunities that will provide employment locally for many more people than are currently employed on the Cockburn Coast. This will create – A Financially Viable Community.
An Accessible Community	While the basic infrastructure is in place for a road network along the Cockburn Coast development there will still need to be future development of local roads to support the new development. In addition the urban density of the development lends itself to a range of pedestrian, bicycle and public transport options, including the possibility of light rail. The community feedback indicates people think this would be a benefit to the development area and would result in – An Accessible Community
A Diverse & Creative Community.	The heritage of the Cockburn Coast is clearly present and offers further opportunity for preservation; together with new public art installations, and other creative expression. The cultural diversity of the site will increase with the addition of 12,000 people over the life of the development. This will bring greater capacity for community creative engagement such that the Cockburn Coast will become – A Creative, Diverse Community.
An Environmentally Sustainable Community	The environment is an all-encompassing aspect of the Cockburn Coast which people want maintained and enhanced. Opportunities exist for the provision of state of the art waste management, water recycling, and energy efficiency. Work to upgrade the coastal areas and ensure development is environment friendly is important to the development of – An Environmentally Sustainable Community.



# PART B Strategic Framework

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The Vision for the Cockburn Coast Community Plan is:

# "To create a vibrant landmark destination that is connected, integrated, diverse and accessible."

This vision has been adopted from the Cockburn Coast Masterplan to provide continuity of vision across the project.

### **OBJECTIVES**

The objectives of the Cockburn Coast Community Plan are:

- Develop an understanding of the potential demographic profile of the future Cockburn Coast community
- Identify relevant stakeholder involvement and responsibilities in the delivery of this plan
- Identify required infrastructure, facilities, services and programs that meet the future community's future needs and aspirations for a full and happy life.





# B.2 COMMUNITY PLANNING & PLACE MAKING PRINCIPLES

The Cockburn Coast Community Plan has been developed utilizing an underpinning set of community planning principles. In addition, Place Making Principles set out by the Place Making Framework for the Cockburn Coast have been considered in the development of the Community Plan.

# PLACE MAKING PRINCIPLES FOR COCKBURN COAST

The Place Making Principles guide the high level delivery of the place character and provide a measurement tool to assess the successful delivery of the character and experience of the place we aim to create at Cockburn Coast . Whilst each of the Principles sits most strongly within the social, economic, physical environment or cultural realm, the Principles should be considered as applying across all aspects of the place, and as such should be considered by this Community Plan.

- > Prioritise diversity as a key driver of cultural change.
- Explore transition between experiences & places, active and passive spaces, local and regional destinations.
- Build a culture of change capacity that celebrates innovation & participation.
- Identify service and support roles for local and regional networks.

## **COMMUNITY PLANNING PRINCIPLES**

This Community Plan has been developed from the following principles:

- Support the development of a diverse community by working with a social justice focus
- Develop partnerships with and between the three levels of government, nongovernment sector, private enterprise and volunteers to deliver the plan
- Work in a collaborative, and coordinated way to ensure equity in service provision and program delivery across the community
- Encourage healthy lifestyles with a minimized ecological footprint
- Provide quality infrastructure and facilities for the community with visionary integrated long-term planning



The Strategic Directions for the Cockburn Coast Community Plan emerged from the analysis of the community needs for the Cockburn Coast area. This community needs analysis was undertaken using data from the Community Profile, community input from the

A HEALTHY AND ACTIVE COMMUNITY

The Cockburn Coast needs to provide opportunities for healthy and active lifestyles amongst its community. Encourage healthy living by offering physically engaging local activities and providing access to local services that support health and holistic approaches to wellbeing.

#### A LEARNING COMMUNITY

The Cockburn Coast community needs to provide for the personal growth and education of its residents at every stage in life. Provide for educational, training and life-long learning experiences across the life-span of all local residents to support a culture of innovation and new approaches to sustainable living.

#### A CARING AND SAFE COMMUNITY

The Cockburn Coast must provide a feeling of comfort, care and safety to attract a diverse audience. This can be achieved through the use of appropriate urban design, place activation and the provision of quality services that support and encourage the physical and emotional wellbeing of the vulnerable, young, disabled and aged residents, and their carers.

# A COMMUNITY WITH INNOVATIVE & SUSTAINABLE HOMES

The Cockburn Coast development needs to actively support the sustainable lifestyle choices made by its community. Building development should utiltise innovative design and meet environmentally sustainable standards, but should also consider its ability to change and respond flexibly to future community needs. Community Engagement undertaken with the stakeholders, and a review of all relevant State Government, City of Cockburn and Cockburn Coast plans and strategies.

#### AN ECONOMICALLY SUSTAINABLE COMMUNITY

The Cockburn Coast community will be strengthened through the provision of local jobs for local people. Utilise economic development practices to establish a financially sustainable community that will become a thriving industrial, commercial and professional centre that supports tourism.

#### AN ACCESSIBLE COMMUNITY

The Cockburn Coast must be physically, financially and socially accessible. A range of pedestrian and wheeled vehicle transport options will complement the urbanized build environment and provide clear linkages both internally and to adjacent regions and will create a sense of welcome when combined with a range of price points to ensure affordability.

#### A DIVERSE & CREATIVE COMMUNITY

The Cockburn Coast needs to attract a diversity of people from a range of backgrounds and age groups to live in the area. This will contribute to the growth of a flourishing creative arts community as well as support an active public realm and a healthy economy served by people of varied ages, incomes and cultural backgrounds.

# AN ENVIRONMENTALLY SUSTAINABLE COMMUNITY

In order to become an environmentally sustainable community, the Cockburn Coast must consider more than just the physical environment. A sympathetic built environment that responds to the landscape should be met with programs that encourage behaviour change, resource efficiency, productive landscapes, and meet local needs locally.





# Plan for a healthy and active community for Cockburn Coast through the promotion of physical and emotional well being.

The Cockburn Coast Community Plan supports the development of a healthy and active community both in terms of physical and emotional wellbeing. The development of healthy and active lifestyles for residents, visitors and people working, living and learning in Cockburn Coast is a key goal for The Plan.

As a new place, with no existing community, the early delivery of key health services particularly for children and older people will be essential for attracting and retaining residents. The concentration of activity and amenities provided by higher density living will encourage walking, public transport use and shared experiences in the public realm. Programs to support community cohesion and development will build a sense of belonging.

#### CHALLENGES

- The relative isolation of the site and past industrial uses means that it is currently not serviced
- > Linkages to regional health services will be required
- Timed rollout of services will be critical to liveability of the area
- Viability of local services will depend on population numbers
- Promotion to private and public health providers to provide localised services

#### **OPPORTUNITIES**

- > Coastal location supports active outdoor lifestyles
- Concentration of local retail on main street to create community heart
- Development of a pedestrian culture due to higher density living
- Proximity to existing tertiary health services in the region
- Football oval will attract regional players and expand community boundary
- > Existing culture of exercising with animals

Community Group	Facilities	Services
All	<ul> <li>Local health facilities</li> </ul>	<ul> <li>Local health services</li> </ul>
	<ul> <li>Beach side showers and change rooms</li> </ul>	<ul> <li>Allied health services</li> </ul>
	> Beach equipment for hire - chairs, umbrellas, water craft	<ul> <li>Complementary health services</li> </ul>
	<ul> <li>Diving/snorkelling platform</li> </ul>	
	<ul> <li>Horse parking, trails and appropriate facilities</li> </ul>	
	<ul> <li>Shared path (cycle/ped) linking to existing coastal walk</li> </ul>	
	> Exercise stations and distance markers for runners/walkers	
Children	<ul> <li>Ocean pool with lanes</li> </ul>	
	<ul> <li>Regional play area, interpretive water play</li> </ul>	
Youth	<ul> <li>Active sports practice area; courts and cricket nets</li> </ul>	
	<ul> <li>Basketball and netball courts</li> </ul>	
	<ul> <li>Water sports club facility (surf, sailing etc)</li> </ul>	
	<ul> <li>Youth focussed skateable landscape</li> </ul>	
sinks/dinks	<ul> <li>Beach games infrastructure – volleyball</li> </ul>	<ul> <li>Low cost sports equipment hire</li> </ul>
Families	<ul> <li>Local health facilities</li> </ul>	<ul> <li>Local health services</li> </ul>
	<ul> <li>Dual seasonal sports ground &amp; sports club room</li> </ul>	
Elders	<ul> <li>Beach games infrastructure - boules, giant chess</li> </ul>	<ul> <li>Age appropriate exercise program</li> </ul>
	<ul> <li>Boat mooring facilities</li> </ul>	



Plan for the Cockburn Coast to support a community encourages life-long learning through formal educative experiences and informal sharing of skills and knowledge.

The Cockburn Coast Community Plan identifies the need for a range of educational, training and life-long learning experiences for local residents to ensure aspirations for the delivery of a learning community are met.

Early delivery of high quality childcare and primary education facilities will attract families to consider alternatives to suburban living. Active learning and skills sharing programs such as LandCare provide informal education opportunities as well as community connection with place.

#### CHALLENGES

- Matching provision of facilities with requirements of residents in a timely manner
- Early provision of adequate transport linkages to regional educational services in adjacent suburbs
- > Lack of local programs and services

#### **OPPORTUNITIES**

- > Commitment to primary school on site
- Building an energy efficient, environmentally sustainable development that can be used as educational experience
- Partnerships for on site educational/learning service delivery

Community Group	Facilities	Services
All	<ul> <li>Robb Jetty reconstruction</li> </ul>	<ul> <li>Community education</li> </ul>
	<ul> <li>Heritage trail with appropriate interpretation</li> </ul>	<ul> <li>Historical services</li> </ul>
Children	<ul> <li>Primary School</li> </ul>	<ul> <li>Primary school education services</li> </ul>
	<ul> <li>Preschool/child care centre</li> </ul>	<ul> <li>Early childhood education service</li> </ul>
Youth	<ul> <li>Out of school hours centre</li> </ul>	<ul> <li>Out of school care service</li> </ul>
	<ul> <li>Environmental learning facility</li> </ul>	<ul> <li>Environmental education providers</li> </ul>
sinks/dinks	<ul> <li>Vocational education</li> </ul>	<ul> <li>Vocational education</li> </ul>
	<ul> <li>Adult education</li> </ul>	
	<ul> <li>TAFE/Training facility</li> </ul>	
Families	<ul> <li>Private education provision</li> </ul>	<ul> <li>Family edu-tainment (walking trails, free talks, workshops)</li> </ul>
Elders	> Library/Adult life long learning facility	<ul> <li>Adult life long learning services</li> </ul>
		<ul> <li>Library services</li> </ul>





# Plan for Cockburn Coast to be a caring and safe community that supports its individual members and takes responsibility for the greater good.

The Cockburn Coast Community Plan actively encourages the development of a community that ensures the most vulnerable; children, those with disabilities and the aged, have the care they require and their carers are supported.

Developing a community of 12,000 from zero provides the opportunity to build cohesion and shared responsibility from day one. Support, care, safety and personal security are basic rights of the individual that can only be realised by the many. The thirty-year development time frame also means that forty year olds moving into the area in the early stages of the development, will be seventy by the end and in need of age related services.

#### CHALLENGES

- Identifying common interests to seed early community development of pioneer purchasers
- Relative isolation of the area will require focused attention by service providers to deliver to the new community
- Timing roll out of services to ensure new residents in need are not left without services
- > Attracting a range of ages and abilities
- Creating a cohesive community by encouraging people moving into the area to stay for the long term

#### **OPPORTUNITIES**

- To create a built environment that is usable, to the greatest extent possible, by everyone regardless of their age, ability, or status in life
- To provide co located housing opportunities that attract a diversity of people
- To provide opportunities for community interaction and local community governance and shared responsibility
- > Expansion and extension of local government services

Community Group	Facilities	Services
All	<ul> <li>Catherine Point Community Facility</li> </ul>	<ul> <li>Local Government capacity building programs</li> </ul>
	<ul> <li>Beach front disability access</li> </ul>	<ul> <li>Local Government safety programs r</li> </ul>
	<ul> <li>Public toilets</li> </ul>	<ul> <li>Welfare services</li> </ul>
	<ul> <li>Water bubblers</li> </ul>	<ul> <li>Police services</li> </ul>
	<ul> <li>Public spaces well lit at night</li> </ul>	> Fire services
	<ul> <li>Police and Fire Station</li> </ul>	> Emergency services
	<ul> <li>Emergency Services facility</li> </ul>	
Children		
Youth	<ul> <li>Youth centre</li> </ul>	<ul> <li>Youth outreach/neighbourhood watch</li> </ul>
SINKS/DINKS		<ul> <li>Community leaders, residents associations and local business chamber</li> </ul>
Families	<ul> <li>Baby change/feeding rooms</li> </ul>	<ul> <li>Baby and toddler care services</li> </ul>
		<ul> <li>Services for carers</li> </ul>
Elders	Seniors centre	<ul> <li>Aged care services</li> </ul>
	<ul> <li>Aged &amp; disabled service delivery facility</li> </ul>	<ul> <li>Disability services</li> </ul>

# **B.3d** A Community with Innovative & Sustainable Homes

Plan for Cockburn Coast to provide a range of residential types and tenures that are designed to minimize resource use and to adapt to the changing needs of residents.

The Cockburn Coast Community Plan supports the provision of diverse residential options in terms of size, affordability and tenure. Attracting a truly diverse demography to the area will depend on residential diversity.

New homes should be provided that attract a broad and diverse community of residents of different ages and relationship status, with and without children, and at different price points. Residences, whether purchased or rented should be flexible in design to allow for changes that reflect the requirements of ageing in place.

Proposed higher density living will require innovative solutions to address desirable suburban characteristics such as land ownership, private backyards, and perceptions of increased security.

### CHALLENGES

- Attracting current single house residents to higher density living
- Providing housing options for purchase and renting
- Providing opportunities for individualization of residential units
- Providing useable private and shared outdoor spaces

#### **OPPORTUNITIES**

- > Sharing the benefits of higher density living
- Provision of supported living for people with disabilities
- Design buildings where it is easier to walk than drive, that have shared facilities and on site resource minimisation systems

Community Group	Facilities	Services
All	<ul> <li>Affordable housing</li> </ul>	<ul> <li>Tenancy services</li> </ul>
	<ul> <li>Supported living facility for those with disabilities</li> </ul>	
Children	<ul> <li>Play areas for local children</li> </ul>	
Youth		
sinks/dinks	<ul> <li>Designated off leash dog park with dog wash facility</li> </ul>	
Families	<ul> <li>Shared communal facilities such as laundries and drying rooms</li> </ul>	<ul> <li>Sustainable house education programs</li> </ul>
Elders	<ul> <li>Aged care living</li> </ul>	





Plan for the Cockburn Coast to provide a range of jobs to local residents and support the development and sustainability of a local business community.

The Cockburn Coast Community Plan supports the need for an economically viable, financially sustainable community on the Cockburn Coast. This means ensuring the early delivery of the main-street precinct to allow for the establishment of businesses, commercial enterprises and professional offices that meet local needs locally. Employment opportunities for the local people will result.

A local economic development strategy should be developed that considers the viable lease terms, tenancy mix, tenancy sizes and business attraction to the area.

#### CHALLENGES

- Moving the economic base from the current industries to a services, commercial and retail base
- Timing roll out of local retail to ensure new residents in need are not left without and businesses have a chance to succeed
- Building the economic base in tandem with the housing development to provide jobs for people moving to the area

#### **OPPORTUNITIES**

- Creating a thriving main street economy so locals shop locally
- Build on the heritage narratives and environmental assets of the area to create a new tourism industry
- Identifying employment partners for professional and managerial roles

Community Group	Facilities	Services
All	<ul> <li>Robb Jetty Main Street; wide covered footpaths, seating, public art, landscaping</li> <li>Power Station public plaza as recreation destination and anchor for edge retail</li> <li>Redevelopment of the Power Station</li> <li>Tourist Information Centre</li> </ul>	<ul> <li>Tourist and visitor marketing program</li> <li>Job services</li> <li>Business mentoring programs</li> </ul>
Children	Visitor accommodation	
Youth		
sinks/dinks	<ul> <li>Activate building edges on beach front with coffee shops, restaurants, bars etc</li> <li>Creative incubator spaces; low cost and short lease</li> </ul>	<ul> <li>Business enterprise services</li> </ul>
Families	<ul> <li>Street vending</li> </ul>	
Elders		



# Plan for the Cockburn Coast to be physically and economically accessible, connected to the greater region and be welcoming to all.

The Cockburn Coast Community Plan supports increased walking, public transport use and cycling as alternatives to car use on site. In addition dedicated no/low cost car parking for regional visitors will need to be provided for access to recreation amenities.

The topography of the site, with its eastern ridgeline, creates a natural barrier to the rest of the City of Cockburn, and as such requires a focused approach to linking the Cockburn Coast to Cockburn Central as the local government headquarters so people can become part of the wider local government area and access services as required.

Accessibility is not limited to physical mobility, partnerships with existing regional service providers, and the price point of housing, hospitality and recreation as well as a sense of welcome and initiation are also all key.

### CHALLENGES

- > Physical isolation from eastern communities
- > The dominant car culture of the region
- Commitment of government to early delivery of public transport

#### **OPPORTUNITIES**

- > Concentration of amenity supports walkability
- > Delivery of affordable public transport system
- > Free access to beach and water activities
- Continued use of beach and foreshore for dog walking and horse riding
- Integrated car parking that can adapt to other uses in the future

Community Group	Facilities	Services
All	<ul> <li>Beach side parking areas</li> </ul>	<ul> <li>Free local bus service</li> </ul>
	> Pedestrian network that links destinations, is comfortable, safe	<ul> <li>Bus rapid transit</li> </ul>
	and easy	<ul> <li>Taxi service</li> </ul>
	<ul> <li>Pedestrian crossings located on paths between key destination</li> </ul>	<ul> <li>Light rail service</li> </ul>
	<ul> <li>Level crossings for pedestrians/cyclists across rail line (x3)</li> </ul>	
	<ul> <li>Cycle paths shared with cars and/or pedestrians where appropriate</li> </ul>	
	<ul> <li>Cycle parking along the foreshore, Power Station and Robb Jetty main street</li> </ul>	
	<ul> <li>Car parking at beach front</li> </ul>	
	<ul> <li>Foot/cycle path landscaping for comfort and pleasure</li> </ul>	
	<ul> <li>Bus rapid transit system</li> </ul>	
	<ul> <li>Bus stations and shelters</li> </ul>	
	<ul> <li>Taxi ranks</li> </ul>	
Children		
Youth	<ul> <li>Skateboard storage facility</li> </ul>	
sinks/dinks	> Car and bike share	<ul> <li>Car and bike rental service</li> </ul>
Families	<ul> <li>Accessible pram ramps</li> </ul>	
Elders	<ul> <li>Scooter parking/pathways</li> </ul>	





Plan for Cockburn Coast to attract people of all ages, ethnicities and cultures to work together to develop a meaningful, creative and productive community.

The Cockburn Coast Community Plan supports the retention and enhancement of the area's tangible and intangible heritage, both Nyungar and European, and to build a meaningful relationship between this place and the community of the future.

Consideration should be given to the attraction of skilled migrants to the Cockburn Coast.

Creative activities to suit the aspirations of the planned community members will attract people from a range of cultural backgrounds and support a diversity of ideas and activities, and support creative cultural exchange through language, food and experience.

Public art and community art offer many benefits from wayfinding and land marking through to the communal expression of common values and beliefs. The invitation to participate in creative experiences builds place meaning and community cohesion and presents an opportunity for Cockburn Coast to lead the creative renaissance of the region.

#### CHALLENGES

- Immigration from overseas to Western Australia lacks cultural diversity (dominated by English speaking nations)
- > Lack of performance, visual and creative arts infrastructure
- Building on and maintaining the underground creative culture at Fremantle Power Station

#### **OPPORTUNITIES**

- People from international backgrounds who are familiar with higher density living
- Young singles who are currently involved in work that means they travel regularly and may not have bought into the market before
- People from adjacent areas who are keen to live in a higher density area
- Down sizers, and retirees looking for a change of lifestyle
- Creative arts experiences not offered in other areas of City of Cockburn which will help to make Cockburn Coast a unique living experience

Community Group	Facilities	Services
All	<ul> <li>Robb Jetty Plaza community facilities focussed on multiple user</li> </ul>	<ul> <li>Services for the local Nyungar people</li> </ul>
	needs	<ul> <li>Creative performance services</li> </ul>
	<ul> <li>Robb Jetty Foreshore (public space) with mix of amenity for different users</li> </ul>	<ul> <li>Event program coordinator</li> </ul>
	<ul> <li>Public art; ephemeral, functional, and both temporary and</li> </ul>	<ul> <li>Visual arts services</li> </ul>
	permanent	<ul> <li>Creative performance services</li> </ul>
	<ul> <li>Event space with appropriate infrastructure</li> </ul>	<ul> <li>Historical services</li> </ul>
	<ul> <li>Nyungar cultural space</li> </ul>	
	<ul> <li>Heritage centre for Indigenous and early settler displays</li> </ul>	
Children		
Youth	<ul> <li>Low cost/concession art studio spaces for rent</li> </ul>	
sinks/dinks	<ul> <li>Community art studio spaces for rent</li> </ul>	
Families	<ul> <li>BBQ areas, picnic tables and shelters</li> </ul>	
Elders		<ul> <li>Arts mentoring program</li> </ul>

# **B.3h** An Environmentally Sustainable Community

Plan to support an environmentally sustainable community at Cockburn Coast primarily through cultural change, transport modal shifts and the reduction of resource use.

The Cockburn Coast Community Plan supports the planned environmental strategy and encourages environmental education and cultural change programs that illustrate the benefits of higher density living. Community facilities and residences should be built to the highest ESD standards and be upgradeable as new technologies become available.

The physical infrastructure should be developed sensitively and carefully to maintain and enhance natural assets, placing the built environment in sustainable co-existence with the natural environment. Programs such as LandCare can be activated early in the process to build responsibility for the natural environment. The primary school can also lead with communal gardens and an environmental education focus.

#### CHALLENGES

- Protecting sensitive and fragile natural assets while providing a high density urban living experience
- Commitment to the highest standard of environmentally sensitive development
- Localised resource management
- > Cultural change of current population

#### **OPPORTUNITIES**

- > Primary school environmental education focus
- Natural environmental assets
- Public transport
- Build community cohesion through the creation of a model environmentally sustainable community

Community Group	Facilities	Services
All	> Protect and enhance foreshore landscape	<ul> <li>Water services</li> </ul>
	<ul> <li>Water sensitive urban design</li> </ul>	<ul> <li>Waste services</li> </ul>
	<ul> <li>Waste management facility</li> </ul>	<ul> <li>Energy services</li> </ul>
	<ul> <li>Energy efficient development</li> </ul>	<ul> <li>Bush regeneration services</li> </ul>
	<ul> <li>Maintenance of Lakes environment</li> </ul>	
	<ul> <li>Maintenance of Bushland</li> </ul>	
	> Ensure access over ridgeline to east of Cockburn Coast	
	> Design to ameliorate the impact of Fremantle Doctor	
	> General environmental sustainability within urban development	
Children	<ul> <li>Environmental learning facility</li> </ul>	<ul> <li>Environmental education providers</li> </ul>
Youth		
sinks/dinks		
Families		
Elders		<ul> <li>Environment conservation volunteer program</li> </ul>





The tables outlined on the following pages are a summary of the required facilities and service gaps that have been identified by the Cockburn Coast Community Plan.

#### FACILITY AND SERVICE NEEDS BASED STATUS

The are listed under three headings; planned, recommended and desired.

- a)Planned Those items listed as "planned" are those facilities and services which are listed in a current local government or State plan or strategy.
- **b)Recommended** The items listed as "recommended" are those which are deemed as a required infrastructure or service for Cockburn Coast if the vision of liveability is to be achieved.
- **c)Desired** Those items listed as "desired" are those which, if provided, would increase the liveability and appeal of the development and encourage a diverse population to settle in the area.

#### **RESPONSIBILITY FOR DELIVERY**

The facilities and services identified in the following tables have been evaluated against the relevant policy documents and assigned to a stakeholder(s) who will deliver the infrastructure. The policy and delivery is explained below:

#### Policy

DCA 13	Community infrastructure, soft, LGA wide, informs the DCP North Coogee
DCP North Coogee	Physical infrastructure, hard, site specific, is informed by DCA 13

#### Delivery

Developer	Government or private developer contributions
Government	State and local government departments and divisions
Business	Private enterprise

#### A Healthy and Active Community

Facilities		DCA 13	DCP North Coogee	Developer	Government	Business
Planned	<ul> <li>Dual seasonal sports ground &amp; sport club rooms</li> </ul>					
	<ul> <li>Shared path (cycle/ped) linking to existing coastal walk</li> </ul>					
Recommended	<ul> <li>Exercise stations</li> </ul>					
	> Distance markers for runners/walkers					
	> Water sports club facility (surf, sailing etc)					
	<ul> <li>Beach side showers and change rooms</li> </ul>					
	<ul> <li>Local health facilities</li> </ul>					
	<ul> <li>Active sports practice area; courts and cricket nets</li> </ul>					
	<ul> <li>Horse parking, trails and appropriate facilities</li> </ul>					
	Regional play area, interpretive water play					
	> Youth focussed skateable landscape					
Desired	<ul> <li>Boat mooring facilities</li> </ul>					
	<ul> <li>Diving/ snorkelling platform</li> </ul>					
	<ul> <li>Ocean pool with lanes</li> </ul>					
	<ul> <li>Beach games infrastructure e.g. volleyball, boules, giant chess</li> </ul>					
	<ul> <li>Beach equipment for hire; chairs, umbrellas, water craft</li> </ul>					

Services		Developer	Council	Business
Recommended	<ul> <li>Local health services</li> </ul>			
	<ul> <li>Allied health services</li> </ul>			
	<ul> <li>Complementary health services</li> </ul>			
Desired	<ul> <li>Low cost sports equipment hire</li> </ul>			
	<ul> <li>Age appropriate exercise program</li> </ul>			



#### A Learning Community

Facilities		DCA 13	DCP North Coogee	Developer	Government	Business
Planned	<ul> <li>Robb Jetty Reconstruction</li> </ul>					
	<ul> <li>Primary school</li> </ul>					
Recommended	<ul> <li>Heritage trail with appropriate interpretation</li> </ul>					
	<ul> <li>Preschool/childcare centre</li> </ul>					
	<ul> <li>Library/Adult life long learning facility</li> </ul>					
Desired	<ul> <li>TAFE/Training Facility</li> </ul>					
	<ul> <li>Out of school hours centre</li> </ul>					
	Private education provision					
	Environmental learning facility					
	<ul> <li>Marine Park</li> </ul>					

Services		Developer	Government	Business
Planned	None			
Recommended	<ul> <li>Early childhood education service</li> </ul>			
	<ul> <li>Primary school education services</li> </ul>			
	<ul> <li>Library services</li> </ul>			
	<ul> <li>Family edu-tainment (walking trails, free talks, workshops)</li> </ul>			
Desired	<ul> <li>Community education</li> </ul>			
	<ul> <li>Adult life long learning services</li> </ul>			
	<ul> <li>Vocational education</li> </ul>			
	<ul> <li>Environmental education providers</li> </ul>			

#### A Caring and Safe Community

Facilities		DCA 13	DCP North Coogee	Developer	Government	Business
Planned	<ul> <li>Catherine Point Community Facility</li> </ul>					
	<ul> <li>Beach front disability access</li> </ul>					
Recommended	<ul> <li>Public toilets and baby change/feeding rooms</li> </ul>					
	<ul> <li>Water bubblers co-located with exercise stations, bus stops, community gathering areas</li> </ul>					
	<ul> <li>Public spaces well lit at night to provide a clear line of sight and passive surveillance</li> </ul>					
	<ul> <li>Shaded and weather protectes places for sitting at bus stops, railway crossings and along key pedestrian paths</li> </ul>					
Desired	Seniors centre					
	Youth centre					

Services		Developer	Government	Business
Planned	None			
Recommended	<ul> <li>Community capacity building programs ; volunteering etc</li> </ul>			
	<ul> <li>Community safety programs</li> </ul>			
	<ul> <li>Baby and toddler care services</li> </ul>			
	<ul> <li>Aged care services</li> </ul>			
	<ul> <li>Disability services</li> </ul>			
	<ul> <li>Services for carers</li> </ul>			
	<ul> <li>Welfare services</li> </ul>			
	<ul> <li>Police and Fire services</li> </ul>			
	<ul> <li>Emergency services</li> </ul>			
	<ul> <li>Youth outreach/neighbourhood watch</li> </ul>			
	<ul> <li>Community leaders, residents associations and local business chamber</li> </ul>			
Desired	None			



#### A Community with Innovative and Sustainable Housing

Facilities		DCA 13	DCP North Coogee	Developer	Government	Business
Planned	<ul> <li>Affordable housing options</li> </ul>					
	> A mix of housing types, sizes and tenures					
	<ul> <li>Housing design that reduces operating costs/ resource use</li> </ul>					
Recommended	<ul> <li>Waste management systems for household recycling, composting etc</li> </ul>					
	<ul> <li>Play areas for local children</li> </ul>					
	<ul> <li>Designated off leash dog park with dog wash facility</li> </ul>					
	<ul> <li>Shared communal facilities such as laundries and drying rooms</li> </ul>					
Desired	<ul> <li>Housing for ageing in place</li> </ul>					
	<ul> <li>Supported living facility for those with disabilities</li> </ul>					

Services		Developer	Government	Business
Planned	None			
Recommended	<ul> <li>Tenancy services</li> </ul>			
	<ul> <li>Sustainable home education programs</li> </ul>			
	<ul> <li>Neighbourhood 'share' systems - share car, tool library, toy library</li> </ul>			
Desired	None			

#### An Economically Sustainable Community

Facilities		DCA 13	DCP North Coogee	Developer	Government	Business
Planned	<ul> <li>Robb Jetty Main Street; wide covered footpaths, seating, public art, landscaping</li> </ul>					
	<ul> <li>Power Station public plaza as recreation destination and anchor for edge retail</li> </ul>					
Recommended	<ul> <li>Redevelopment of the Power Station to incorporate community facilities/spaces</li> </ul>					
	<ul> <li>Small area retail opportunities for local business ownership</li> </ul>					
	<ul> <li>Visitor parking</li> </ul>					
	<ul> <li>Tourist wayfinding signage etc</li> </ul>					
	<ul> <li>Visitor accommodation</li> </ul>					
Desired	<ul> <li>Street vending</li> </ul>					
	<ul> <li>Creative incubator spaces; low cost and short lease</li> </ul>					

Services		Developer	Government	Business
Planned	None			
Recommended	<ul> <li>Tourist and visitor marketing program</li> </ul>			
	<ul> <li>Place management services</li> </ul>			
Desired	<ul> <li>Business enterprise services</li> </ul>			
	<ul> <li>Business mentoring program</li> </ul>			
	<ul> <li>Job services</li> </ul>			



#### An Accessible Community

Facilities		DCA 13	DCP North Coogee	Developer	Government	Business
Planned	<ul> <li>Beach side parking areas</li> </ul>					
	<ul> <li>Pedestrian network that links destinations, is comfortable, safe and easy</li> </ul>					
	<ul> <li>Level crossings for pedestrians/cyclists across rail line (x3)</li> </ul>					
	<ul> <li>Cycle paths shared with cars and/or pedestrians where appropriate</li> </ul>					
	<ul> <li>Cycle parking along the foreshore, Power</li> <li>Station and Robb Jetty main street</li> </ul>					
	<ul> <li>Car parking at beach front</li> </ul>					
	<ul> <li>Foot/cycle path landscaping for comfort and pleasure</li> </ul>					
	<ul> <li>Pedestrian crossings located on paths between key destination</li> </ul>					
	<ul> <li>Bus rapid transit system linked to</li> <li>Fremantle and other employment centres</li> </ul>					
	<ul> <li>Bus stations and shelters co-located with other transport options and/or commercial or retail premises</li> </ul>					
	<ul> <li>Taxi ranks</li> </ul>					
	Accessible pram/wheelchair ramps					
Recommended	<ul> <li>Car share hub</li> </ul>					
	→ Bike share∕hire hub					
Desired	None					

Services		Developer	Government	Business
Planned	<ul> <li>Bus rapid transit</li> </ul>			
Recommended	<ul> <li>Taxi service</li> </ul>			
Desired	<ul> <li>Light rail service</li> </ul>			
	<ul> <li>Car and bike rental service</li> </ul>			
	<ul> <li>Free local bus service</li> </ul>			

#### A Diverse and Creative Community

Facilities		DCA 13	DCP North Coogee	Developer	Government	Business
Planned	<ul> <li>Robb Jetty Plaza community facilities focussed on multiple user needs</li> </ul>					
	<ul> <li>Robb Jetty Foreshore (public space) with mix of amenity for different users</li> </ul>					
	<ul> <li>BBQ areas, picnic tables and shelters</li> </ul>					
	Public art; both temporary and permanent					
Recommended	<ul> <li>Nyungar cultural space</li> </ul>					
	<ul> <li>Heritage interpretations thoughout site/ where appropriate</li> </ul>					
	<ul> <li>Event space with appropriate infrastructure</li> </ul>					
Desired	<ul> <li>Art and performance space</li> </ul>					
	<ul> <li>Low cost/concession art studio spaces for rent</li> </ul>					
	<ul> <li>Community art studio spaces for rent</li> </ul>					

Services		Developer	Government	Business
Planned	None			
Recommended	<ul> <li>Community event program coordinator</li> </ul>			
Desired	<ul> <li>Community creative arts/performance services</li> </ul>			



#### An Environmentally Sustainable Community

Facilities		DCA 13	DCP North Coogee	Developer	Government	Business
Planned	<ul> <li>Protect and enhance foreshore landscape (Foreshore Management Plan)</li> </ul>					
Recommended	<ul> <li>Waste management facility</li> </ul>					
Desired	None					

Services		Developer	Government	Business
Planned	None			
Recommended	<ul> <li>Water services</li> </ul>			
	<ul> <li>Waste services</li> </ul>			
	<ul> <li>Energy services</li> </ul>			
	<ul> <li>Bush regeneration services</li> </ul>			
	<ul> <li>Environmental conservation volunteer program</li> </ul>			
Desired	None			



The Cockburn Coast Community Plan has developed a local community profile, albeit with limitations due to the lack of a current community population in the area. Local sentiment about the future of Cockburn Coast was captured in the community engagement data that had been gathered over the duration of the Cockburn Coast planning period. In addition, current State and local government plans and strategies together with Cockburn Coast plans and strategies were reviewed. Following this a community needs analysis was undertaken to identify the infrastructure, facilities and service requirements of the Cockburn Coast in making it a liveable community.

The findings presented in the Cockburn Coast Community Plan include both the routine and the special requirements. The routine requirements for Cockburn Coast are the infrastructure, facilities and services which Australians expect to be available for any community in the country. The special requirements are those infrastructures, facilities and services that should be delivered in the Cockburn Coast to address its unique environment.

To ensure liveability in the Cockburn Coast, the Community Plan supports the delivery of all routine requirements for the community. In addition it supports the delivery of the special requirements identified for the community. First is the need for the higher density urban development to be placed in the fragile coastal landscape in an environmentally sensitive manner. Then there is a need to marry the current open space land and coastal recreation uses with the aesthetic creative leisure pursuits favoured by highly urbanised populations. Finally is the need to address accessibility for all age and ability groups when considering the topology, transportation and housing requirements of the area.

Success in delivering both the routine and special requirements identified in the Cockburn Coast Community Plan will ensure the Cockburn Coast becomes a highly liveable urban community into the future.





In the development of the Cockburn Coast Community Plan reference was made to the following documents and sources:

- Australian Bureau of Statistics data including 2006 Census Data and 2010 National Regional Profiles data
- > City of Cockburn; A Plan for the District 2010-2020
- > City of Cockburn; Age-Friendly Strategic Plan 2008
- > City of Cockburn; Business Plan 2010/11
- > City of Cockburn; Children's Services Plan 2010-2015
- City of Cockburn; Greenhouse Gas Emission Reduction Strategy 2011-2020
- > City of Cockburn; Land Management Strategy 2011-2016
- > City of Cockburn; Library Strategic Plan 2007-2010
- City of Cockburn Local TravelSmart Guide West
- City of Cockburn; New Directions for Community Development Service Unit
- City of Cockburn; Population and Household Forecast: Coogee-North Coogee
- > City of Cockburn; Public Artwork Strategy 2009
- > City of Cockburn; Reconciliation Action Plan 2011-2013
- Climate Change Climate Change Risk Management and Adaptation Action plan for the Southern Metropolitan Councils
- > Cockburn Coast Community Engagement Strategy
- > Cockburn Coast District Structure Plan
- > Cockburn Coast Integrated Transport Plan
- Cockburn Coast Masterplan
- > Cockburn Crime Prevention Plan 2011-2014
- > Cockburn Strategic Plan 2006-2016
- > Directions 2031 and Beyond
- > Draft Outer Metropolitan Perth and Peel Sub-regional Strategy
- Drivers of Activity Centre Development in the Fremantle CBD: Fremantle's position in the metropolitan hierarchy
- > North Coogee Foreshore Management Plan
- > Port Coogee Marina Village Masterplan

- Sport and Recreation Strategic Plan 2009
- > The Changing Cockburn Coast; European Heritage
- The Changing Cockburn Coast; Indigenous Heritage
- The Changing Cockburn Coast; Socio-economic Analysis
- > Western Australian Police Crime Statistics 2011

#### APPENDIX\_\_\_\_\_2: On Site Species List

Species List (including species recorded by GHD (2009) and by ELA during the recent site visit

#### Note: species marked with a \* indicate weed species.

Family	Species		
Aizoaceae	*Tetragonia decumbens		
Asparagaceae	*Asparagus asparagoides		
Asphodelaceae	*Asphodelus fistulosus		
Asteraceae	*Senecio diaschides		
Asteraceae	*Sonchus oleraceus		
Brassicaceae	*Cakile maritima		
Brassicaceae	*Raphanus raphanistrum		
Crassulaceae	*Crassula glomerata		
Euphorbiaceae	*Euphorbia terracina		
Geraniaceae	*Pelargonium capitatum		
Goodeniaceae	Scaevola crassifolia		
Mimosaceae	Acacia rostellifera		
Myrtaceae	Agonis flexuosa		
Myrtaceae	Eucalyptus platypus		
Myrtaceae	*Leptospermum laevigatum		
Myrtaceae	Melaleuca lanceolata		
Nitrariaceae	Nitraria billardierei		
Oxalidaceae	*Oxalis pes-caprae		
Papilionaceae	*Lupinus cosentinii		
Papilionaceae	*Trifolium angustifolium var. Angustifolium		
Papilionaceae	*Trifolium campestre var. campestre		
Poaceae	*Avena barbata		
Poaceae	*Bromus diandrus		
Poaceae	*Cynodon dactylon		
Poaceae	*Lolium rigidum		
Poaceae	Spinifex longifolius		

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#### Recommended control Species Common Name \*Tetragonia decumbens Sea Spinach Consult weed control specialist. Spray 0.2 g metsulfuron methyl + Pulse® in 15 L water (or 2.5 - 5g /ha \*Asparagus asparagoides Bridal Creeper + Pulse®). Best results achieved when flowering Hand pull small infestations. Apply metsulfuron-methyl at 0.1 g /10 L + \*Asphodelus fistulosus Onion Weed 100 ml spray oil when flowering. \*Senecio diaschides Consult weed control specialist. \*Sonchus oleraceus Common Sowthistle Remove small and/or isolated populations manually prior to seed set. Slashing is often ineffective as flowers continue to be produced. Spot spray Lontrel® 10 ml/10 L + wetting agent preferably at the rosette stage. Sea Rocket Low priority for control given its dune stabilisation role. However if \*Cakile maritima removal is pursued manual removal is effective but must be done at least every 8-10 weeks. Ensure material is removed off-site, as once pods are formed, seed will often mature if plants have been uprooted. Fairly selective control can be achieved by spot spraying Logran® at 0.5 g/10 L. Wick application with 50% glyphosate or foliar spraying with 1% glyphosate provides reasonable control and can be used at flowering to reduce seed set. \*Raphanus raphanistrum Wild Radish Hand remove isolated plants several times throughout the year. Spot spray 1% glyphosate before flowering. A combination of approaches is usually most successful. \*Crassula glomerata Consult weed control specialist. \*Euphorbia terracina Geraldton Carnation Spot spray large infestations with metsulfuron methyl 0.1 g/15 L before Weed flowering. Follow-up with hand removal for at least five years. Logran® at 12.5 g/100L + the penetrant Pulse ® has been found to be very effective on adults and iuveniles in coastal heathlands. Ensure adequate personal protective clothing is worn to avoid contact with sap. Rose Pelargonium \*Pelargonium capitatum Hand pull isolated plants taking care to remove the entire stem as it can reshoot from below ground level. Spot spray metsulfuron methyl 5 g/ha + Pulse®. Easily controlled after fire. Hand pull seedlings. Fell mature plants. Resprouting has been recorded Coast Teatree \*Leptospermum in some areas. Where resprouting has been observed, apply 250 ml laevigatum Access® in 15 L of diesel to bottom 50 cm of trunk (basal bark). Seeds released en masse when plants are damaged or stressed, including herbicide application, mechanical damage or fire \*Oxalis pes-caprae Soursob Spot spray metsulfuron methyl 0.2 g/15 L + Pulse®, or 1% glyphosate. Apply at bulb exhaustion, generally just on flowering. Exercise care if manually removing as physical removal can result in spread of bulbils \*Lupinus cosentinii Western Australian Hand remove scattered plants prior to flowering. Spray dense infestations with metsulfuron methyl 0.1g/15 L (2-3 g/ha) + wetting Blue Lupin agent. Larger areas can be treated with more selective herbicides such as 200 g/ha Lontrel® or 50 g/ha Logran® (based on 500 L of water/ha). For spot spraying use 4 g Lontrel® or 1 g Logran® in 10 L of water + wetting agent. Glyphosate is relatively ineffective. \*Trifolium angustifolium Hand remove isolated plants before flowering. Spot spray Lontrel® 10 var. Angustifolium MI/10 L + wetting agent in early winter before flowering provides effective control. \*Trifolium campestre var Hop Clover Hand remove isolated plants before flowering. Spot spray Lontrel® 10 campestre MI/10 L + wetting agent in early winter before flowering provides effective control. Spray at 3-5 leaf stage with Fusilade® Forte at 16 ml/10 L + wetting \*Avena barbata Bearded Oat agent. Repeat over the following 2 years. Aim to prevent seed production. Prevent seed set. Hand pull plants. In degraded areas use 1% Great Brome \*Bromus diandrus glyphosate on seedlings, young plants or when flowering. Alternatively spray plants at 3-5 leaf stage with Fusilade® Forte at 16 ml/10 L or 800 ml/ha (based on 500 L water/ha) + wetting agent. An early and late application may be required where two Bromusspecies are present. Repeat the following year if required. \*Cynodon dactylon Couch Small infestations may be dug out, ensuring removal of all rhizomes and stolons, however it is difficult to eradicate without herbicides. Sprav Fusilade® Forte at 8 ml/L + wetting agent when plants are small and beginning new growth, or 1% glyphosate in late spring/summer and autumn when rhizomes are actively growing. In sensitive areas try painting runners or crowns with 50% glyphosate. Follow-up is nearly

# <sup>56</sup> Appendix 3: Recommended methods for control of individual weeds at the site as per Florabase (DEC 2012) and Brown and Brooks (nd)

#### APPENDIX\_\_\_\_\_4: Rehabilitation Species

#### Appendix 4: Suggested plant species for use in rehabilitation and landscaping works (adapted from Ecoscape 2009)

The following suggested species list for use in rehabilitation and revegetation at the site has been adapted from the list provided in Ecoscape (2009). This is to allow for a level of consistency across both the North Coogee Foreshore Management Plan (Ecoscape 2009) and this Foreshore Management Plan due to the overlap of areas covered by these plans at Point Catherine. Some additional species have been suggested, based on amenity species for the foreshore as listed in WAPC (2003) and also key species of the Quindalup Dune shrublands and herblands as described in Government of Western Australia (2000). Some of these species are identified as being suitable for provision of shade and/or windbreak functions or would assist in adding value to fauna habitat at the site.

Species		Locations suitable for species plant East of foredune (central	Eastern boundary of site (dense	Comments
Species	Dunes	East of foredune (central corridor)	Eastern boundary of site (dense woodland)	Comments
Acacia cochlearis		x	x	
Acacia cyclops			x	
Acacia lasiocarpa			x	Flowering shrub
Acacia rostellifera			x	Provides shade and/or windbrea functions
Acacia sclerosperma subsp. sclerosperma		x	x	
Acanthocarpus preissii		x	x	
Agonis flexuosa			x	Provides shade and/or windbrea
Allocasuarina lehmanniana			x	functions Provides shade and/or windbrea functions
Alyxia buxifolia			x	
Angianthus cunninghamii	х	x		
Anthocercis littorea	~ ~ ~		x	
Atriplex cinerea	х	x	~	
	^			
Atriplex isatidea		X	X	
Baumea preissii Callitris preissii		x	x	Medium tree, provides shade an windbreak functions (Note: invasive roots, care to be taken around sewers)
Calothamnus quadrifidus			x	
Carpobrotus virescens		x	x	
Clematis linearifolia			x	
Conostylis candicans		x	x	
Diplolaena dampieri			x	
Eremophila glabra		x	x	
Ficinia nodosa		x		
Gastrolobium nervosum		x	X	Small flowering shrub (attract
0				birds)
Grevillea crithmifolia			X	
Grevillea preissii			x	
Hakea prostrata			x	
Hardenbergia comptoniana			x	
Hemiandra pungens		x		
Lepidosperma gladiatum		x	x	
Lepidosperma pubisquameum		x	x	
Leucophyta brownii		x	x	
Melaleuca huegelii			x	
Melaleuca lanceolata Melaleuca systena syn. Melaleuca acerosa			x	Tall shrub or medium tree, provides shade and windbreak functions (Note: best grown in groves, single plants blow over ii strong winds and roots can be invasive) Medium shrub, provides shade and windbreak functions. Flowering species to attract birds
Myoporum insulare			x	
Olearia axillaris	х	x	x	
Ozothamnus cordatus		x	x	
Phyllanthus calycinus		x	x	Erect flowering shrub (attract birds)
Rhagodia baccata			x	
Santalum acuminatum			x	
Scaevola crassifolia		x	x	Erect flowering shrub
Scaevola nitida		x	x	Erect flowering shrub
	x	x	^	on one of the other
Spinifex hirsutus				
Spinifex longifolius	Х	X		
Sporobolus virginicus	Х	x		
Spyridium globulosum			x	Erect flowering shrub, provides windbreak function.
Templetonia retusa		х	x	Medium flowering shrub, provide
· ···piotorna rotada		^	^	shade and windbreak functions

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