

Public Open Space STRATEGY



PREPARED AND ADOPTED AS A LOCAL PLANNING STRATEGY PURSUANT TO REGULATIONS 12A AND 12B OF THE *TOWN PLANNING REGULATIONS 1967*

Draft – July 2014









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GREGROWE & associates

FOCUSED ON ACHIEVEMENT

This Strategy should be read in conjunction with the City of Greater Geraldton Public Open Space Strategy Background Report which contains the research and analysis used to formulate the Strategy.

ADVERTISING

The City of Greater Geraldton Public Open Space Strategy certified for advertising on ______.

Signed for and on behalf of the Western Australian Planning Commission.

an officer of the Commission duly authorised by the Commission (pursuant to the Planning and Development Act 2005)

Date: _____

ADOPTION

The City of Greater Geraldton hereby adopts the Public Open Space Strategy, at the Ordinary meeting of the Council held on _____

MAYOR

CHIEF EXECUTIVE OFFICER

ENDORSEMENT

Endorsed by the Western Australian Planning Commission on

an officer of the Commission duly authorised by the Commission (pursuant to the Planning and Development Act 2005)

Date: _____

CONTENTS

EXECUTIVE SUMMARY

1.0	OVERV	'IEW	2
	1.1	Introduction	2
	1.2	Strategy Objectives	3
2.0	ANALY	SIS OF CURRENT PUBLIC OPEN SPACE PROVISION	4
	2.1	Current Supply of Public Open Space	5
	2.2	Community Survey Results	7
	2.3	The Role of the Foreshore	8
	2.4	Residual Public Open Space	8
3.0	REGIO	NAL VARIATIONS	10
	3.1	Conservation Areas	10
	3.2	Cash in Lieu for Public Open Space	11
		3.2.1 Subdivision of three or more lots	11
		3.2.2 Strata subdivision of three or more lots	12
	3.3	Maintenance of Public Open Space	13
4.0	FRAME	WORK OF PUBLIC OPEN SPACE	14
	4.1	Hierarchy	14
	4.2	Provisions Standards	14
	4.3	Local Open Space	15
	4.4	Neighbourhood Open Space	16
	4.5	District Open Space	17
	4.6	Regional Open Space	18
	4.7	Conservation Areas	19
5.0	DESIG	N, CONSTRUCTION AND MAINTENANCE	20
	5.1	Guidelines for the Design of Public Open Space	20
	5.2	Construction and Maintenance of Public Open Space	20
6.0	PUBLIC	OPEN SPACE (BY LOCALITY)	22
	6.1	Beachlands	23
	6.2	Beresford	24
	6.3	Bluff Point	25
	6.4	Cape Burney	26
	6.5	Drummond Cove	27
	6.6	Geraldton	28
	6.7	Glenfield	30
	6.8	Karloo	31
	6.9	Mahomets Flats	32
	6.10	Mount Tarcoola	33
	6.11	Mullewa	34
	6.12	Rangeway	35
	6.13	Spalding	36
	6.14	Strathalbyn	37
	6.15	Sunset Beach	38

6.16	Tarcoola Beach	
6.17	Utakarra	
6.18	Waggrakine	
6.19	Walkaway	
6.20	Wandina	
6.21	Webberton	
6.22	West End	
6.23	Wonthella	
6.24	Woorree	

APPENDIX 1 – Guidelines for the Design of Public Open Space

APPENDIX 2 – Guidelines for the Preparation of Foreshore/Conservation Management Plans

APPENDIX 3 – Public Open Space Locality Maps

EXECUTIVE SUMMARY

One of the principal aims of any public authority is to improve 'quality of life'. Hard to measure, yet universally understood, it is about placing greater importance on improving the experience of living in our towns and regions. Wherever we live, our neighbourhood should be somewhere we want to be and are happy to belong to. Our open spaces are key to this, meeting a range of social, environmental and health benefits as well as making areas more visually attractive. That is why creating, protecting and enhancing these spaces is such a vital part of making neighbourhoods more attractive and more joyful places in which to live.

The City of Greater Geraldton (CGG) is one of the fastest growing regional local government areas in Western Australia. As a result there are increasing pressures in terms of use and provision of its parks, beaches and foreshore reserves. It is therefore important that the CGG has a strategic vision and framework to assess community needs and to guide future public open space provision.

In preparing the Strategy an audit was undertaken in order to provide a 'snapshot' of the current provision of public open space in each locality to identify; over or under supply of spaces, their distribution, role and servicing. This audit found that the current provision of public open space within the Geraldton urban area and townsites represents 9.82% of the total net area

A community survey was carried out to ascertain how and which spaces are actually used. Key findings to emerge from the consultation included that:

- Quality and well maintained facilities are the overriding factors that affect respondents' use and perceptions of accessibility to recreational space, and
- There is a clear indication that the public spend most time visiting the foreshore which functions as an area of open space.

The Strategy adopts a 5 tiered hierarchy system of open space and takes advantage of the ability to create regional variations. These variations involve;

- Increasing the percentage of restricted use public open space for the preservation of native vegetation,
- Requests for provision of cash-in-lieu in subdivisions and strata subdivisions of 3 or more lots; and
- Extending of the maintenance period of public open space to 5 years.

The Strategy also provides guidance with regard to design, construction and maintenance of public open spaces.

Locality specific objectives, rationale and actions are presented in Section 6, along with locality maps which are presented in Appendix 3.

The Strategy, including the audit and locality calculations, was based on information current at the time the project was conducted.

The CGG has a vision to have the capacity to sustain a population of up to 100,000 making it the focal point for an active and vibrant region. Staged implementation of the strategies and actions contained in this report will help the CGG manage its extensive public open space network in an efficient and equitable manner so that all residents may enjoy its many benefits.

1.0 OVERVIEW

1.1 Introduction

Public open spaces are an integral component of any urban environment. Parks and green spaces provide recreational opportunities, contribute to the identity of a place and are crucial for the successful function of urban communities. People use open space in a variety of ways, whether it be for recreational purposes, walking the dog or playing sport. Parks offer places to relax and enjoy the natural environment whether for adults or children. Open spaces can also host events and festivals on both a small and large scale which can attract local and regional audiences.

Environmental protection is also an essential role of public open space, through habitat and biodiversity conservation and air and water quality management. Open space is also highly valued for its intrinsic benefits, such as natural beauty, its contribution to neighbourhood character, its cultural heritage value and the emotional attachment people may have to it. The value that public open space provides to the community is a combination of social, economic and environmental factors.

The City of Greater Geraldton (CGG) recognises that great open spaces and parks make for a better quality of the urban environment and quality of life. Open space provision is firmly part of the statutory and community planning process. A strategic approach to open space provision maximises its potential to provide appropriate multi-functional open space that reflects the community needs.

The Public Open Space Strategy will provide this overarching framework and strategic direction for open space planning in the CGG for the next 20 years and beyond.

While it is acknowledged that substantial recreation activities occur in other areas of publicly accessible space, the Strategy is only focused on urban areas where the mandatory minimum 10% public open space provisions are required under the current State planning framework. The Western Australian Planning Commission's (WAPC) 'Liveable Neighbourhoods' provides much of this framework and also includes a definition of public open space which will be the basis for this Strategy.



SEAHAVEN PARK - DRUMMOND COVE

1.2 Strategy Objectives

The key objective of the Public Open Space Strategy is to provide an easily understood strategic vision for the future planning and improvement of public open spaces primarily within the Greater Geraldton urban area and townsites. Specific objectives include:

Establish a quality open space network:

- Develop and upgrade open space in response to community wants and needs in a manner which reflects the way in which spaces are actually used.
- Understand and reflect the role that foreshores and coastal areas play in the community.
- Provide recommendations on opportunities regarding consolidation of public open space through land acquisition, land disposal and/or land exchanges.
- Utilise a flexible approach to open space provision and investment which takes advantage of opportunities within individual localities.
- Recognise the potential of incorporating biodiversity within public open space and recommendations for preservation.
- Provide distributed open space within easy walking distance.
- Improve community health, wellbeing and security.

Establish a framework for public open space provision with regard to hierarchy, services, design, and construction and maintenance:

- To provide clarity and reasonable certainty for developers and land owners in relation to the requirements and expectation in respect of public open space provision.
- Increase community understanding of the role and provision of their local open space areas.
- To provide more environmentally and financially sustainable open space.
- Apply variations to the collection and expenditure of cash-in-lieu provisions to ensure cost effective open space development.

Upgrade existing and develop new public open spaces:

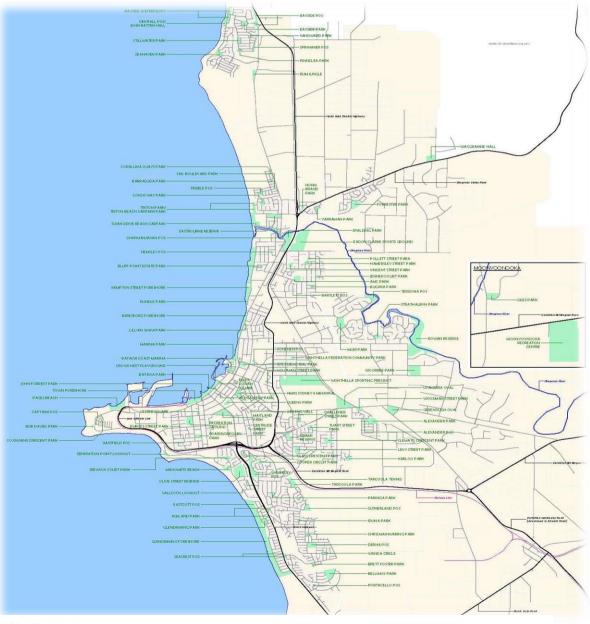
- To bring all public open spaces up to a consistent level of service and provision.
- Assist the CGG with the implementation of a prioritised program of park upgrades

2.0 ANALYSIS OF CURRENT PUBLIC OPEN SPACE PROVISION

The Public Open Space Strategy Background Report includes a policy and literature review and local data collection via:

- A community survey, for which 181 responses were received; and
- A locality based audit of all open space parks, reserves and beaches throughout the municipality.

Section 3.1.3 of the Background Report also contains a full run down of the methodology of the entire project, specifically of the audit undertaken and the general assumptions used.



CGG PARKS MAP

2.1 Current Supply of Public Open Space

Table 1 summarises the information obtained from the audit and provides a snapshot of current public open space provision. For each locality, the total area of public open space and dual function regional open space is shown. The areas of public open space and dual function regional open space are then combined to calculate percentage amount of public open space in relation to the net locality area.

This snapshot of current public open space provision has highlighted three different situations occurring in the localities; being

- Localities that meet their 10% public open space contribution requirements,
- New greenfield localities that fall below their 10% public open space contribution requirements; and
- Established localities that fall below their 10% public open space contribution requirements.

Within new greenfield sites, it is envisaged that through the development of vacant residential land the amount of public open space will increase. However, within established localities the aim should not be to increase the quantity of public open space, but to secure and increase the quality of public open space within the locality. It is considered that residents in the 'older' more established localities have a lesser expectation regarding the amount of public open space and the ability for new areas to be created.

It is important to note that when the provision of public open space and dual function regional open space is considered as a percentage of the total of the Geraldton urban area and towns (calculated using the total area of open space and the combined net subdivisible area of each suburb), it represents 9.82% of the total net area, which is very close to the 10% requirement. This calculation does not include foreshore areas and other areas of regional open space. It is therefore considered that there is a significant supply of public open space within the municipality.



CHAPMAN RIVER REGIONAL PARK

Table 1	Current Supply of Public Open Space
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Locality	Public Open Space (ha)	Dual Function Regional Open Space (ha)	Total Open Space (ha)	Current Provision of Open Space (% of gross subdivisible area)	
Beachlands	8.0875	0	8.0875	9.72%	
Beresford	3.2073*	0	3.2073	3.40%	
Bluff Point	1.8138*	1.8799	3.6937	4.08%	
Cape Burney	9.8772*	0.1074	9.9846	2.64%	
Drummond Cove	12.9649	0	12.9649	9.69%	
Geraldton	15.7422	1.6415	17.3837	8.06%	
Glenfield	32.3937*	0	32.3937	4.90%	
Karloo	3.1828	0	3.1828	1.34%	
Mahomets Flats	7.6513*	0	7.6513	13.59%	
Mount Tarcoola	14.7099	0	14.7099	8.56%	
Mullewa	15.7888	0	15.7888	17.59%	
Rangeway	7.2418	0	7.2418	5.58%	
Spalding	5.9593*	19.9797	25.939	19.21%	
Strathalbyn	7.5999	0	7.5999	6.00%	
Sunset Beach	12.1092*	0	12.1092	10.07%	
Tarcoola Beach	1.9776	0	1.9776	2.81%	
Utakarra	18.4698*	8.6723	27.1421	12.53%	
Waggrakine	25.2501*	0	25.2501	9.18%	
Walkaway	15.0623	0	15.0623	29.80%	
Wandina	27.1932*	0	27.1932	9.31%	
Webberton	2.3971	0	2.3971	6.77%	
West End	2.7197	0	2.7197	14.96%	
Wonthella	1.3122	11.8036	13.1158	12.98%	
Woorree	8.2730	0	8.2730	13.10%	
TOTAL	260.9846**	44.0844	305.069	9.82%***	

* Total Includes public open space contained within a Structure Plan for the locality.

** Figure includes 67.01ha of new public open space allocated in structure plan areas.

*** Figure includes public open space, public open space contained within a Structure Plan and dual function regional open space.

2.2 Community Survey Results

An online and paper survey was undertaken to measure the community's level of satisfaction with the current provision of public open space in their locality and in the wider municipality. Survey participants were also asked to comment on their current utilisation of public open space and identify gaps in the current level of servicing.

181 people participated in the survey, which was available for completion from 25 April to 18 May 2012. The survey responses are detailed in the Background Report. The main aim of the research was to ensure that the views, ideas and concerns of residents were incorporated into the Strategy.

Results from the survey are a reflection of residents' levels of activity with a large number of participants utilising the coastal reserves or ocean for recreation purposes.

The following is a summary of the key points:

- Most respondents (83%) indicated that they had an area of recreational space within 5 minutes walking distance from their house. Of those that did not, the majority indicated that the closest recreational space was within a 10 minute walk.
- Only 49% of respondents indicated that they visit their closest recreational space 'all of the time' or 'over half of the time.'
- When asked why they chose to visit their closest recreational space, the most common response was convenience given its proximity to their residence and their ability to walk there. Open spaces that were in proximity to the beach, or were the beach were also extremely popular.
- The most popular activities at people's closest recreational space were exercising, walking and walking the dog.
- Nearly 1/3rd (31%) of respondents who did not regularly visit their closest recreational space commonly travel over 5km to reach their preferred recreational space.
- Quality and well maintained facilities is the overriding factor that affects respondents' use and perceptions of accessibility of recreational space. Respondents who travelled commonly cited better and more varied facilities and better maintenance as the reason behind their decision to travel. It is noted however, that some respondents preferred an unstructured environment and would travel to reach it, such as the beach or natural spaces.
- There is a clear indication that the public spend most time visiting the foreshore which functions as an area open space. The foreshore has a number of different facilities and types of spaces catering for different activities and age groups.
- Other popular areas of recreational space include Point Moore, Glendinning Park, Bluff Point beach and Drummond Cove beach.
- The survey results reflects current national trends on using open space with walking, relaxing / enjoying the environment, socialising with friends and walking the dog the most popular uses of public open space. Improving the quality of passive areas of public open space which facilitate these uses is a priority.
- With respect to activities that are not currently catered for, many respondents mentioned improved cycle paths, outdoor exercise equipment, skateboarding facilities, and dedicated

dog areas. There is also an expressed demand for more activities catering for older children and teenagers.

- With respect to facilities that are needed, more and better maintained public toilets was the most popular response, with shade / shelter, seating, BBQs and lighting at night also highly prioritised.
- Survey respondents were frequent users of recreational space with 42% visiting spaces daily and 49% visiting weekly.
- The 3 most common barriers cited which hindered people from utilising recreational space included no toilets or poor toilets, no shelter or shade, and the space being unappealing.
- Play areas are an important resource, especially for the under 5 age group and their provision should be considered alongside other key facilities and services particularly toilets, pathways, entrances, seating, and car parking.
- When asked which areas of open space have significant social, cultural, or historic value a large number of respondents referenced the city's many beaches and river foreshores. It is clear that these spaces provide immense value to the community regardless of whether facilities are provided.

2.3 The Role of the Foreshore

While not considered within public open space calculations under WAPC's 'Liveable Neighbourhoods' requirements, foreshores play a major role within the Geraldton community. The extensive coastline means that accessibility to these areas is high and they provide a large catchment for both active and passive recreational facilities to surrounding localities.

The Geraldton Foreshore provides facilities and amenity not found elsewhere, attracting the Greater Geraldton community and beyond into the city centre.

It is clear from the outcomes of the community survey that discussion of open space within Geraldton without considering the positive impact of the foreshore is not reviewing the public open space network in a holistic manner.

In order to reflect the important role that foreshores play, areas with facilities and services have been notated on locality maps in Appendix 3 as 'activated foreshore areas'. Not only should these areas be considered as part of catchment and accessibility they should be considered for investment and development as part of locality actions.

2.4 Residual Public Open Space

The public open space audit identified a number of sites where further development into usable public open space was not considered appropriate. These sites have been shown as 'residual' on the locality maps in Appendix 3 and included within residual calculations on the locality tables in Section 6. Identified residual sites will be further considered for disposal (either in whole or partially) with the proceeds of any sale directed to further public open space acquisition or development in the locality.

The basic principles underlining public open space being considered residual are as follows:

- Site being too small for sustainable development.
- Site being in close proximity to other more preferable public open space areas either within the locality or in an overlapping catchment from an adjacent locality.
- Location of site in established localities which do not reflect community use of public open space.
- Excess provision of a certain hierarchy of public open space within a locality.
- Financial implications to the CGG over the ultimate and best use of the site.
- Prioritisation of capital expenditure in localities where higher amenity public open space areas require additional funds for maintenance.
- Site considered unsafe due to anti-social behaviour.



CORALLINA QUAYS PARK – SUNSET BEACH

3.0 REGIONAL VARIATIONS

The WAPCs 'Liveable Neighbourhoods' allows for the use of regional variations in the calculation of public open space contributions. In order to provide more financially and environmentally sustainable public open space, the Strategy puts in place the following regional variations.

3.1 Conservation Areas

The Geraldton Regional Flora and Vegetation Survey (GRFVS), produced by the WAPC, provides a regional context for land use planning and the environmental impact assessment of proposals affecting native vegetation in the Geraldton region. The survey aims to describe and map the vegetation of the survey area, to provide a regional context for conservation-based planning decisions in the Geraldton region. The major findings of the survey (of most relevance to this Strategy) were:

- The long history of human settlement in the area has resulted in extensive clearing of native vegetation. About 15% (6,112ha) of the original extent of vegetation remains in the survey area, which is only half the national target of 30% retention to achieve biodiversity conservation outcomes.
- The remaining vegetation is highly fragmented with 625 separate patches mapped in the region.
- Less than 2% of the remaining native vegetation in the survey area (representing only two of the 17 mapped plant communities), is currently protected in Department of Environment and Conservation reserves.
- The majority of remnant vegetation in the survey area is threatened by development, weed invasion, grazing, fire, or recreational use; therefore, it is likely that much of the vegetation in good or better condition in the survey area will be considered important for conservation.

'Liveable Neighbourhoods' (Element 4 – R5) states that the WAPC will accept a minimum of 8% of public open space for active and passive recreational purposes, with 2% able to be allocated for 'restricted use' public open space for the preservation of natural areas. 'Liveable Neighbourhoods' (Element 4 – R6) does allow the amount of restricted use public open space to be increased subject to an agreed management plan, however the increase cannot be factored into the 10% contribution.

The Strategy implements a regional variation to increase the percentage of restricted use public open space permitted within the 10% contribution where conservation of high value native vegetation is possible. It is anticipated that this variation will further encourage developers to conserve significant vegetation without being 'penalised' for doing so.

The CGG will accept a minimum of 5% of public open space for active and passive recreational purposes, with 5% able to be allocated for 'restricted use' public open space for the preservation of native vegetation.

All 'restricted use' public open space types are to be included within this 5%, and the variation from 2% to 5% and its inclusion within the total 10% contribution is not applicable for 'restricted' use types other than for the preservation of native vegetation.

The application of this variation will require that;

- The vegetation is demonstrated to be of high value in accordance with the principles of the GRFVS. This may necessitate the undertaking of additional localised vegetation surveys.
- Sufficient alternative active and passive recreational opportunities are available within the locality.

3.2 Cash in Lieu for Public Open Space

The 10% contribution of public open space in small-scale subdivisions requested by the WAPC's 'Liveable Neighbourhoods' can often be impractical because 10% of a small land holding does not provide a useable public open space area. In this instance a local government may request that the WAPC require the developer to pay cash in lieu of providing the actual land. The money is to be used by the local government for purchasing other land for public open space, repaying loans taken out to buy public open space, or where approved by the Minister for Planning, for improving or developing existing public open space.

Cash in lieu provisions are not only applicable to small scale subdivisions. The WAPC's 'Development Control Policy 2.3 – Public Open Space in Residential Areas' and 'Liveable Neighbourhoods' identify a number of situations where it may be required or accepted by the local government and/or WAPC. This includes where:

- The land is such that a 10% contribution would be too small to be of practical use.
- There may already be sufficient public open space in the locality.
- Public open space is planned in another location by way of a town planning scheme or local structure plan.

3.2.1 Subdivision of three or more lots.

The 10% public open space contribution has traditionally not been required of developers producing 5 lots or fewer as per Section 3.1.5 of the WAPC's 'Development Control Policy 2.3 – Public Open Space in Residential Areas' and Element 4 R39 of *Liveable Neighbourhoods*.

However under the *Planning and Development Act* 2005 (Section 153) the minimum amount of lots created before the owner/developer may be required to give up a public open space contribution is 3 lots. Section 153 states:

- "(1) If the Commission has approved a plan of subdivision of land on condition that a portion of the land be set aside and vested in the Crown for parks, recreation grounds or open spaces generally and:
 - (a) the Commission, after consultation with the local government in whose district the portion is situated, so requires; or
 - (b) the Commission, the local government in whose district the portion is situated and the owner of the land so agree, the owner of that land is to, in lieu of setting aside the portion, pay to that local government a sum that represents the value of the portion.
- (2) The Commission is not to impose a requirement referred to in subsection (1)(a) in respect of a plan of subdivision that creates less than 3 lots."

This presents significant opportunities for urban infill as in the past most people dividing up 1 or 2 existing lots into 3 or 4 higher density lots or grouped dwellings have not been required to make a contribution (or pay cash-in-lieu). Such infill is expected to continue (and indeed increase) over the next decade and beyond, which will result in increasing use of existing spaces and facilities. Public open space contributions by small scale developers must therefore be considered in light of the opportunity created by the legislation to provide additional funds for improving or expanding existing public open spaces.

The CGG will request cash-in-lieu of a land contribution to public open space in subdivisions where 3 or more lots are being created, unless it can be demonstrated by the applicant that a 10% public open space contribution has previously been made.

3.2.2 Strata subdivision of three or more lots

With respect to lots that are being strata titled, section 3.3.3 of the WAPC's 'Development Control Policy 1.3 – Strata Titles' states, with respect to the provision of 'public facilities':

Consistent with legislation, policy and practice in respect of conventional subdivision, for a proposal involving more than a small number of lots, the WAPC may require a contribution towards the provision of public facilities, such as open space, school sites and the like. The WAPC may allow a maximum of 50 per cent of the total 10 per cent public open space to be provided as communal open space within the survey strata subdivision subject to the open space being useable and developed for general recreation purposes. The remainder of the provision maybe provided outside of the subdivision or by way of cash-in-lieu. The WAPC will allow up to 20 per cent of the 10 per cent contribution to be in the allocation of a site for community facilities, which may include buildings, providing the site is credited towards the communal open space. Cash in-lieu could be provided in the same manner as it is with conventional subdivision.

The increase in density within urban infill sites has the same impact on the use and pressure on existing services regardless of the manner of subdivision. Given the scope within the WAPC policy, it is therefore warranted to create a variation to collect public open space contributions from strata developments, unless it can be demonstrated by the applicant that a 10% public open space contribution has already been given up.

The CGG will request cash-in-lieu to be paid for public open space in strata subdivisions, in accordance with the provisions of Section 3.3.2 of 'Development Control Policy 1.3', where 3 or more lots are being created.

This does not apply to built strata subdivision.



WATER PLAYGROUND - GERALDTON FORESHORE

3.3 Maintenance of Public Open Space

'Liveable Neighbourhoods' (Element 4 R37) states that generally the developer is required to construct public open space to a minimum standard and then maintain this for two summers.

Two years is often not long enough to ensure consolidation of landscaping/regeneration works and to ascertain if the plantings have been successful. If plants don't survive the first one or two summers, the developer needs to review their plant selections, irrigation efficiencies or maintenance strategies. A longer maintenance period may also encourage developers to use better quality materials in structures such as playground equipment and fencing. This will also have flow down effects by providing the CGG with more realistic maintenance costings for new facilities, which will in turn provide more effective budgeting.

The CGG will require that new public open space is developed (to a minimum standard) and maintained by the subdivider for a 5 year period.



HMAS SYDNEY II MEMORIAL - GERALDTON

4.0 FRAMEWORK OF PUBLIC OPEN SPACE

4.1 Hierarchy

This Strategy has adopted a 5 tiered hierarchy system for open space to reflect the different roles served by the diversity of open space and the different purposes and catchments for each category. The hierarchy consists of:

- 1. Local Open Space.
- 2. Neighbourhood Open Space.
- 3. District Open Space.
- 4. Regional Open Space.
- 5. Conservation Areas.

4.2 **Provision Standards**

Provision standards have been developed for each classification of public open space on the hierarchy and outline general requirements for quantity (in terms of size of the area), quality and distance. It must be noted that the standards are general standards only and variations can, and will, occur based on site specific requirements.

The following factors have been taken into account in setting these standards.

- The views of residents including the importance attached to different kinds of open space.
- A quantitative and qualitative analysis of open space and parks.
- Existing state and local policy guidance.
- Consideration that these standards should be applied as part of a holistic analysis of open space where quantity, quality and accessibility are considered together.

The themes guiding the creation of the provision standards are further detailed in Section 4.0 of the Background Report.

The following tables outline the purpose/function of each space within the hierarchy and the provision standards expected for each classification.



CHAPMAN RIVER REGIONAL PARK

4.3 Local Open Space

Local Open Space						
Purpose and Function	Local open space is usually small parklands that service the recreational needs of the immediate residential population. They are primarily used for recreation and may include small areas of nature space. Local open spaces are unlikely to be used for any formal or informal sport.					
Quantity / Typical size	4,000m ² to 1ha*					
Distance / Access	Within 400m or 5 minute walk.					
Location and design	 Local open space should: Be located within a 5 minute walk from s Include accessible, safe pedestrian and cy Form part of an overall pedestrian and points. Support good passive surveillance. Be responsive to natural site features. Build on sense of place. Assist to preserve local biodiversity and maginary serveral procession. 	ycling connections. I cycling network to connect key destination				
Activities	 Activities may include: Children's play, dog walking, picnics, frier Relaxation and rest spots. Casual team activities. Walking, running or cycling. 	nds and family gatherings.				
Quality / Service level	 Bollards Seating Minimal turf area Water sensitive landscaping (including shade trees) 	 Signage Bin (and pet litter bags) Internal pathways 				

⁵ Small open spaces can provide numerous community benefits, particularly within an inner urban context. The inclusion of smaller parks (less than 4,000m²) in greenfield residential developments is not generally considered optimal unless purposeful function can be demonstrated.

TABLE 2 – LOCAL OPEN SPACE PROVISION STANDARDS

4.4 Neighbourhood Open Space

Neighbourhood Op	en Space				
Purpose and Function	Neighbourhood open spaces serve as the recreational and social focus of a community. Residents are attracted by the variety of features and facilities and opportunities to socialise. They can assist to engender sense of place and protect specific conservation values through retention of nature spaces. Neighbourhood open space may be used for junior sport or sports training if appropriate space is available.				
Quantity / Typical size	1ha to 5ha				
Distance / Access	Within 800m or 10 minute walk.				
Location and design	 Neighbourhood open space should: Be central to surrounding neighbourhood Include accessible, safe pedestrian and control of an overall pedestrian and control points. Support good passive surveillance. Be responsive to natural site features. Build on sense of place. Assist to preserve local biodiversity and responsive to natural site features. Be collocated with schools to create a control of the schools to create a control of the	ycling connections. d cycling network to connect key destination natural area values. mmunity hub.			
Activities		mbination of open parkland and bushland with Include sport facilities, depending on ability to necessary supporting amenity.			
Quality / Service level	 Bollards Seating Appropriate size turf area Water sensitive landscaping (including shade trees) Water fountain 	 Signage Bin (and pet litter bags) Internal pathways On-street parking Children's playground with shade Picnic shelter 			



4.5 District Open Space

District Open Space	•					
Purpose and Function	District open space is principally designed to provide for organized formal sport. They will very likely include substantial recreation space and some nature space. Their design and function should consider biodiversity principles and environmental management goals. District open space serves several neighbourhoods with players and visitors travelling from surrounding districts.					
Quantity / Typical size	5ha to 15+ha					
Distance / Access	Within 2km or 5 minute drive. District open sp wider district and surrounding communities.	pace may provide sporting facilities for the				
Location and design	 and recreation. Be located on district distributor roads w Be services by public transport networks. Include accessible, safe pedestrian and cy District open space may also: Be collocated with a school or other com 	sions and supporting amenity for formal sport ith good passive surveillance. ycling connections. munity facilities to create a community hub. urban environment, particularly along major				
Activities	organised sports, children's play, picnick individual activities.	odate a variety of concurrent uses, including king, exercising the dog, social gatherings and pen parkland for casual play and space for as and associations.				
Quality / Service level	 Bollards/fencing Seating Appropriate size turf area Water sensitive landscaping (including shade trees) Water fountain Barbecue Lighting 	 Signage Bin (and pet litter bags) Internal pathways On-street parking Children's playground with shade Picnic shelter Toilets Change rooms 				

TABLE 4 – DISTRICT OPEN SPACE PROVISION STANDARDS

4.6 Regional Open Space

Regional Open Spac	e					
Purpose and Function	Regional open space may accommodate important recreation and organized sport spaces as well as significant conservation and/or environmental features. They may provide substantial facilities for organised sport, play, social interaction, relaxation, and enjoyment of nature. Regional open space can assist to protect biodiversity conservation and environmental values through retention of bushland, wetlands and other natural features.					
Quantity / Typical size	Size is variable and dependant on function. W regional function, allocations for playing fields	/hen sporting space is identified as a necessary and sports facilities should be 20+ha in area.				
Distance / Access	attract visitors from outside any one local go	Regional open space serves one or more geographical or social regions and is likely to attract visitors from outside any one local government area. Users not living within close proximity will use either private vehicles or public transport systems.				
Location and design	 Location of regional open space is usually determined by resource availability and opportunities to utilise and/or protect the space. Regional open space should be well connected to major road and public transport networks. Sport spaces allocated within regional open space must have the capacity to accommodate required field dimensions for both junior and adult sporting competition and appropriate supporting amenity. Regional open space should accommodate biodiversity principles and environmental management goals where possible. 					
Activities		ugh to accommodate various concurrent uses, ay, picnicking, bush walking and protection of				
Quality / Service level	 Bollards/fencing Seating Appropriate size turf area Water sensitive landscaping (including shade trees) Water fountain Barbecue Lighting 	 Signage Bin (and pet litter bags) Internal pathways On-street parking Children's playground with shade Picnic shelter Toilets Multi-user facilities 				

TABLE 5 – REGIONAL OPEN SPACE PROVISION STANDARDS

4.7 Conservation Areas

Conservation areas	-				
Purpose and Function	Conservation areas represent intact or rehabilitated examples of the Western Australian natural environment such as bushland, wetlands and coastal habitats. These areas have been set aside for conservation to preserve biodiversity and wildlife habitats. Any site development should be considerate of the conservation intent of these areas. Appropriate levels of public access will be determined and managed. Recreation is to be strictly limited to uses that have low impact on the area.				
Quantity / Typical size	Size is variable and dependant on the area identified for conservation purposes.				
Distance / Access	No specific catchment.				
Location and design	Preservation of local biodiversity and natural area values. Must accommodate biodiversity principles and environmental management goals.				
Activities	Conservation areas are primarily for the protection of natural features. Activities are limited to uses that have low impact on the area. Where appropriate there may be opportunities for children's play, picnicking and bush walking.				
Quality / Service level	FencingWalk trail	Signage			

TABLE 6 – CONSERVATION AREAS PROVISION STANDARDS



TOM MUIR ARBORETUM - STRATHALBYN

5.0 DESIGN, CONSTRUCTION AND MAINTENANCE

5.1 Guidelines for the Design of Public Open Space

In order to provide some direction to the way in which public open space should be designed, delivered, managed and located, guidelines have been developed which can be found in Appendix 1. These principles should be taken into consideration by the CGG, developers and the community when designing and creating areas of public open space.

5.2 Construction and Maintenance of Public Open Space

Due to the high cost of developing and maintaining public open space, the CGG will require developers to design and construct public open space taking into account the following:

- (a) Children play equipment, shelters, shading and 'furniture' to meet the minimum Australian standard;
- (b) Footpaths and dual-use-paths should be constructed from concrete rather than brick pavers;
- (c) Native vegetation, using water-wise species that are endemic to the locality and consistent with the vegetation complex within which the public open space occurs are preferred;
- (d) Pine posts shall be installed on the periphery to create a barrier for vehicles in preference to other forms of fencing; and
- (e) Water features are not considered appropriate in the Geraldton climate.

While Liveable Neighbourhoods states that generally the developer is required to construct the public open space to a minimum standard and then maintain for two summers, the CGG will require that new public open space is developed (to a minimum standard) and maintained by the subdivider for a 5 year period (refer to Section 3.3).

Developers should ensure that the standards of the landscaping are maintained throughout the maintenance period and not just upgraded prior to handover.

Where scheme water is used for irrigation (not the CGG's preferred option) the developer should pay for a permanent meter (not temporary service agreements).

At the time of hand over the developer should be able to provide the CGG with realistic annual maintenance costs for the new facility therefore enabling the CGG to budget more accurately from the outset.

For development of public open space areas that involve foreshore areas or areas primarily for conservation purposes, the CGG will require detailed management plans as per Appendix 2.

The following criteria will also be used to ensure a sufficient standard of open space is developed prior to handover to the CGG.

• Coverage Criteria

<u>All non-irrigated areas of planting (or direct seeding)</u>: A minimum of 50% projected foliage cover (excluding any weeds) with no bare soil areas > $2m^2$.

<u>All irrigated planting areas</u>: A minimum of 70% projected foliage cover (excluding any weeds) with no bare soil areas $> 0.5m^2$.

<u>All non-irrigated areas of grass</u>: A minimum 70% grass foliage cover (excluding any weeds) with no bare soil areas $> 1m^2$.

<u>All irrigated areas of grass</u>: A minimum 95% grass foliage cover (excluding any weeds) with no bare soil areas $> 0.5m^2$.

• Diversity Criteria - (All species used to be local provenance)

<u>For regeneration of natural areas:</u> At least 40% of the species used in the planting or seeding mix must contain no less than 10 species of shrubs or groundcovers or both.

<u>For all other areas</u>: At least 25% of the species used in the planting or seeding mix must contain no less than 5 species of shrubs or groundcovers or both.

• Plant Numbers Criteria

<u>All non-irrigated areas of planting by seedlings:</u> At least 75% of original plant numbers.

<u>All areas of direct seeding:</u> At least 10 plants per quadrant of 2.5m x 2.5m (excluding any weeds) for any 2 random representative quadrants.

All irrigated areas of planting by seedlings: At least 90% of original plant numbers.

• Foreshore/Conservation Areas

Criteria will be as specified in the relevant management plan as per Appendix 1.



KEMPTON STREET FORESHORE – BLUFF POINT

6.0 PUBLIC OPEN SPACE (BY LOCALITY)

This Strategy divides the CGG into suburb based localities. These areas form the basis of comprehensive open space planning to focus resources for these areas to ensure that additional public open space is located and designed to meet the needs of the local communities that they serve. These tables should be read in conjunction with the individual locality maps contained in Appendix 3.

These tables and the locality maps are built from the information compiled in the base mapping within the Section 5.3 of the Background Report.

6.1 Beachlands

BEACHLANDS							
Objectives	 Minimise inefficiencies from unsuitable public open space provision. Bring existing public open space areas in line with their hierarchy and service level. 						
Total Locality Area	138.5015 h	138.5015 hectares					
Gross Subdivisible Area	83.1983 hectares						
Public Open Space @ 10%	8.3198 hect	ares					
Quantity of Public Open Space	Local	N'hood	District	Conservation	Future	Dual Function ROS	Total
	0.9424	0	4.5599	2.402	0	0	7.9043
Public Open Space Provision	9.50%						
Residual	0.1832 hect	ares					
Rationale	 Beachlands consists of a full range of public open spaces and is slightly under its 10% requirement. Access and proximity to the beach to the south west (across John Willcock Link) and to the city centre increases the availability of public open space. The whole locality is adequately covered by walkable catchments to existing facilities. The open space areas of the Beachlands Primary School further expand the available areas areas and the available areas areas and the available areas areas and the available areas ar						
Actions	 open space network. Dispose of residual public open space areas as shown on the locality plan with direct proceeds going towards additions and upgrades to existing public open space areas. Discourage new public open space being established in subdivisions or developments with a preference for cash-in-lieu contributions. Cash-in-lieu funds will facilitate additions and upgrades to existing public open space. Continued development and maintenance of all public open space areas to ensure consistent service provision in line with their hierarchy. Implement the 'Point Moore to Tarcoola Beach Foreshore Master Plan'. Implement the 'Geraldton-Greenough Coastal Strategy & Foreshore Management Plan' (2005). 						

6.2 Beresford

BERESFORD							
Objectives	 To support the development of the Beresford foreshore as the primary focus for recreation in the locality. Minimise inefficiencies from unsuitable public open space provision. Bring existing public open space areas in line with their hierarchy and service level. 						
Total Locality Area	143.3845 h	ectares					
Gross Subdivisible Area	94.3359 hee	ctares					
Public Open Space @ 10%	9.4336 hect	ares					
Quantity of Public Open Space	Local	N'hood	District	Conservation	Future	Dual Function ROS	Total
	0.8757	0	0	0	1.7361	0	2.6118
Public Open Space Provision	2.77%						
Residual	0.5955 hect	ares					
Rationale	 Although Beresford is generally lacking in facilities and is well under its 10% requirement, as part of the 'Beresford Foreshore Coastal Protection and Enhancement Project' there are significant areas of the foreshore that will become activated and provide a substantial recreational resource. The locality at its furthest is predominantly only 300 – 400m from the foreshore area to the west, which is a further significant recreational focus for the locality (even though only portions are currently activated). The open space areas of the Geraldton Grammar School further expand the available open space network. Despite the low percentage of public open space, focus within the locality should be on upgrading the quality of existing public open space and activated foreshore areas 						
Actions	 instead of increasing the percentage. Implement the 'Geraldton-Greenough Coastal Strategy & Foreshore Management Plan' (2005). Implement the 'Beresford Foreshore Coastal Protection and Enhancement Project Master Plan Report' (2012). Dispose of residual public open space areas as shown on the locality plan with direct proceeds going towards additions and upgrades to activated foreshore reserve areas. Discourage new public open space being established in subdivisions or developments (other than those areas identified as future) with a preference for cash-in-lieu contributions. Cash-in-lieu funds will facilitate additions and upgrades to activated foreshore reserve areas and existing public open space. Continued development and maintenance of all public open space areas to ensure consistent service provision in line with their hierarchy. Explore further opportunities for efficient public open space provision through the 						

6.3 Bluff Point

BLUFF POINT									
Objectives	 To support the development of the Kempton Street foreshore and Rundle Park as the primary focus for recreation in the locality. To minimise inefficiencies of unsuitable public open space provision. Recognise and support conservation opportunities within the locality. 								
Total Locality Area	153.3882 hectares								
Gross Subdivisible Area	90.4248 hectares								
Public Open Space @ 10%	9.0425 hectares								
Quantity of Public Open Space	Local	N'hood	District	Conservation	Future	Dual function ROS	Total		
	1.4221	0	0	0	0.3917	1.8799	3.6937		
Public Open Space Provision	4.08%								
Residual	0.1618 hect	tares							
	 provides for these The loca the fores The Cha proximit The open Geraldto Despite upgradir 	 While Bluff Point is well under its 10% public open space requirements, the foreshore provides much needed and utilised facilities and recreational areas. There is capacity for these to be further expanded. The locality is, at its furthest, only 100m in the south to 800m in the north, away from the foreshore area. The Chapman River Regional Park to the north and north-east is also within close proximity to the locality and is a further recreational attraction. The open space areas of Bluff Point Primary School, St. Lawrence Primary School and the Geraldton Camp School further expand the available open space network. Despite the low percentage of public open space, focus within the locality should be on upgrading the quality of existing public open space and activated foreshore areas 							
Actions	 instead of increasing the percentage. Continued development and maintenance of all public open space areas to ensure consistent service provision in line with their hierarchy. Dispose of residual public open space areas as shown on the locality plan with direct proceeds going towards additions and upgrades to activated foreshore reserve and existing public open space areas. Discourage new public open space being established in subdivisions or developments (other than those areas identified as future) with a preference for cash-in-lieu contributions. Cash-in-lieu funds will facilitate additions and upgrades to activated foreshore reserve areas and existing public open space. Implement the 'Geraldton-Greenough Coastal Strategy & Foreshore Management Plan' (2005). Recognise and respond to conservation opportunities within the Chapman River Regional Park. Implement the long term aims of the 'Chapman Regional Wildlife Corridor Project: Implementation Plan' (2001). 								

6.4 Cape Burney

CAPE BURNEY									
Objectives	 To support the development of the Greenough coastal and river foreshore as the primary focus for recreation in the locality. Recognise and support conservation opportunities within the locality. Secure appropriate public open space contributions through future land development. Bring existing public open space areas in line with their hierarchy and service level. 								
Total Locality Area	538.2416 hectares								
Gross Subdivisible Area	376.8377 hectares								
Public Open Space @ 10%	37.6838 he	ctares							
Quantity of Public Open Space	h Local N'hood District Conservation Future Dual function ROS								
	0	0	0	4.5818	5.2954	0.1074	9.9846		
Public Open Space Provision	2.64%								
Residual	0								
Rationale	 Cape Burney consist only of conservation and dual function regional public open space areas and is well under its 10% requirement. The low amount of public open space provision reflects the substantial areas that have not yet been developed for residential purposes. With the future development of residential areas the quantity and range of open spaces will increase. However, the existing public open space provision in Cape Burney is adequate for the current resident population. Foreshore areas and the Greenough River provide a significant recreational focus (even though only small portions are activated). The future development of an activated on the CGG's land near the Greenough River mouth should provide for a range of boating, fishing, active and passive recreational pourouite 								
Actions	Burney' Continue hierarch Continue consiste Impleme (2005).	 Burney' (2013) with regard to the development of the Greenough River foreshore. Continued structure planning of undeveloped areas to ensure the appropriate siting and hierarchy of future public open space. Continued development and maintenance of all public open space areas to ensure consistent service provision in line with their hierarchy. Implement the 'Geraldton-Greenough Coastal Strategy & Foreshore Management Plan' (2005). 							

6.5 Drummond Cove

DRUMMOND COVE									
Objectives	 To support the development of the Drummond Cove foreshore and the Bayside Waterfront as the primary focus for recreation in the locality. Bring existing public open space areas in line with their hierarchy and service level. Recognise and support opportunities for conservation and protection within the locality 								
Total Locality Area	160.0722 hectares								
Gross Subdivisible Area	133.7693 hectares								
Public Open Space @ 10%	13.3769 he	ctares							
Quantity of Public Open Space	h Local N'hood District Conservation Future Dual Tota function Regional								
	4.491	3.4389	0	5.035	0	0	13.3769		
Public Open Space Provision	9.69%								
Residual	0								
Rationale	 Drummond Cove consists of a full range of public open spaces and is slightly under its 10% requirement. The whole locality is adequately covered by walkable catchments to existing facilities. The locality at its furthest is 800m from the foreshore areas, which is a further significant recreational focus. Further development of the land to the south east should be setback and provide adequate foreshore areas for Dolby Creek to accommodate potential flooding issues. 								
Actions	 Completion and implementation of the 'Drummond Cove Beach Front Design Guidelines'. Discourage new public open space being established in subdivisions or developments with a preference for cash-in-lieu contributions. Cash-in-lieu funds will facilitate additions and upgrades to activated foreshore reserve areas and existing public open space. Continued development and maintenance of all public open space areas to ensure consistent service provision in line with their hierarchy. Implement the 'Geraldton-Greenough Coastal Strategy & Foreshore Management Plan' (2005). Recognise and respond to conservation and protection opportunities of the Dolby Creek area. 								

6.6 Geraldton

Geraldton								
Objectives	 To support the development of the Geraldton foreshore as the primary focus for recreation in the locality and the wider Greater Geraldton community. Support the continued development and maintenance of the HMAS Sydney II Memorial. Bring existing public open space areas in line with their hierarchy and service level. Minimise inefficiencies from unsuitable public open space provision. 							
Total Locality Area	449.9256 hectares							
Gross Subdivisible Area	215.5197 h	ectares						
Public Open Space @ 10%	21.5512 he	ctares			1	_		
Quantity of Public Open Space	Local	N'hood	District	Conservation	Future	Dual function Regional	Total	
	2.7351	3.229	4.4077	4.931	0	1.6415	16.9443	
Public Open Space Provision	7.80%							
Residual	0.4394							
Rationale	 0.4394 Geraldton consists of an extensive range of local, neighbourhood and dual function regional public open spaces and is under its 10% requirement. The quality of most of the open space areas is commensurate with the status of the locality containing the City Centre. Focus is on the Geraldton Foreshore which is the largest single recreation attractor in the CGG. Geraldton has a vast range and variety of both active and passive public open spaces. It also contains a number of cultural facilities that enhance recreational experiences. The whole locality is adequately covered by walkable catchments to existing facilities. Access to various primary and high schools further expand the available open space network. The development of the Batavia Coast Marina precinct should provide for quality open space areas that are available to a range of users (e.g. markets). Despite the lower percentage of public open space, focus with in the locality should be on upgrading the quality of existing public open space areas particularly focusing on the development of the Geraldton foreshore and HMAS Sydney II Memorial to reflect their 							

Actions	• Establish and maintain additional facilities and areas for active and passive recreation on the Geraldton foreshore.
	• Continued development and maintenance of all public open space areas to ensure consistent service provision in line with their hierarchy.
	• Dispose of residual public open space areas as shown on the locality plan with direct proceeds going towards additions and upgrades to the activated foreshore reserve and existing public open space areas.
	 Discourage new public open space being established in subdivisions or developments with a preference for cash-in-lieu contributions. Cash-in-lieu funds will facilitate additions and upgrades to activated foreshore reserve areas and/or existing public open space.
	• Implement the 'Geraldton-Greenough Coastal Strategy & Foreshore Management Plan' (2005).

6.7 Glenfield

GLENFIELD									
Objectives	 Secure appropriate public open space contributions through future land development. Recognise and support conservation opportunities within the locality. Minimise inefficiencies from unsuitable public open space provision. 								
Total Locality Area	824.5988 hectares								
Gross Subdivisible Area	660.8315 hectares								
Public Open Space @ 10%	66.0832 hectares								
Quantity of Public Open Space	Local N'hood District Conservation Future Dual Tot function ROS								
	0	0	0	1.6312	30.71	0	32.3412		
Public Open Space Provision	4.89%								
Residual	0.0525 hect	tares							
Rationale	 The Glenfield Structure Plan indicates future public open space within the structure plan area. The CGG aims to secure the public open space shown as future with a presumption against additional land areas being given up, with cash-in-lieu being provided instead. The low percentage of public open space provision reflects the substantial areas that have not yet been developed for residential purposes. The future development of the Glenfield Beach area will increase the amount of public open space within the locality. 								
Actions	 open space within the locality. Secure appropriate public open space contributions through future land development. Recognise and respond to conservation opportunities within the Rum Jungle area. Continued structure planning of undeveloped areas to ensure the appropriate siting and hierarchy of future public open space. Dispose of residual public open space areas as shown on the locality plan with direct proceeds going towards acquisition of new public open space areas. Implement the 'Geraldton-Greenough Coastal Strategy & Foreshore Management Plan' (2005). Complete and implement any foreshore plans that are developed as part of future structure planning. Discourage new public open space being established in subdivisions or developments within the Glenfield Structure Plan (other than those areas identified as future), with a preference for cash-in-lieu contributions. Cash-in-lieu funds will facilitate additions and 								

6.8 Karloo

KARLOO									
Objectives	 Secure appropriate public open space contributions through future land development Bring existing public open space areas in line with their hierarchy and service level. Recognise and support conservation opportunities within the locality. 								
Total Locality Area	405.7676 hectares								
Gross Subdivisible Area	236.6615 hectares								
Public Open Space @ 10%	23.6662 he	ctares							
Quantity of Public Open Space	Local	Dual function ROS	Total						
	1.2502	1.9326	0	0	0	0	3.1828		
Public Open Space Provision	1.34%								
Residual	0								
Rationale	 The low percentage of public open space provision in Karloo reflects the substantial areas that have not yet been developed for residential purposes. The existing, developed residential area is relatively small and is currently an adjunct to Rangeway / Utakarra to the north. Karloo Park is the only public open space developed. The development of residentially zoned area will increase the amount of public open space within the locality. As the area develops and schools sites are selected and zoned accordingly, the amount of deductions for the locality will increase. The open space area of John Willcock College further expands the open space network. 								
Actions	 Significant vegetation is located within the undeveloped areas of the locality. Continued structure planning of undeveloped residential areas to ensure the appropriate siting and hierarchy of future public open space particularly in order to retain and protect remnant vegetation. Implement the relevant components of the 'Rangeway Utakarra Karloo Precinct Plan' (2013). Continued development and maintenance of all public open space areas to ensure consistent service provision in line with their hierarchy. 								

6.9 Mahomets Flats

MAHOMETS FLATS										
Objectives	locality.Bring exit	 To support the development of the foreshore as the primary focus for recreation in the locality. Bring existing public open space areas in line with their hierarchy and service level. Minimise inefficiencies from unsuitable public open space provision. 								
Total Locality Area	92.3620 he	92.3620 hectares								
Gross Subdivisible Area	56.2912 he	56.2912 hectares								
Public Open Space @ 10%	5.6291 hec	5.6291 hectares								
Quantity of Public Open Space	Local	N'hood	District	Conservation	Future	Dual Function ROS	Total			
	5.9311	1.6261	0	0	0	0	7.5572			
Public Open Space Provision	13.42%									
Residual	0.0941 hec	tares								
Rationale	facilities The fore 	and is over in shore area to	ts 10% requi o the west is	a further signific	0					
Actions	 Impleme (2005). Continue consiste Discoura with a addition space. Dispose 	 Continued development and maintenance of all public open space areas to ensure consistent service provision in line with their hierarchy. Discourage new public open space being established in subdivisions or developments with a preference for cash-in-lieu contributions. Cash-in-lieu funds will facilitate additions and upgrades to activated foreshore reserve areas and existing public open 								

6.10 Mount Tarcoola

MOUNT TARCOOLA										
Objectives	• Bring ex	isting public o	open space a	reas in line with t	their hierarch	ny and servic	e level.			
Total Locality Area	215.7278 h	215.7278 hectares								
Gross Subdivisible Area	171.9077 h	171.9077 hectares								
Public Open Space @ 10%	17.1908 he	17.1908 hectares								
Quantity of Public Open Space	Local	N'hood	District	Conservation	Future	Dual function ROS	Total			
	7.4637	0.7542	0	6.492	0	0	14.7099			
Public Open Space Provision	8.56%	8.56%								
Residual	0	0								
Rationale	 and is sli The ope open spin The loca provides Despite 	ightly under i n space area ace network. Ility at its furt s further recre being under ng the qualit	ts 10% requir of the Mt. T thest is arour eational oppo the 10% re	arcoola Primary nd 1.5km from tl	School furth ne foreshore us within th	er expands t areas to the e locality sh	the available e west which nould be on			
Actions	with a addition • Continue	preference f is and upgrad ed developm	for cash-in-li es to existing ent and ma	e being establis eu contributions public open spa intenance of all with their hiera	s. Cash-in- ce. public oper	lieu funds v	vill facilitate			

6.11 Mullewa

MULLEWA										
Objectives		Minimise inefficiencies from unsuitable public open space provision.Bring existing public open space areas in line with their hierarchy and service level.								
Total Locality Area	145.7988 h	ectares								
Gross Subdivisible Area	89.7415 he	89.7415 hectares								
Public Open Space @ 10%	8.9742 hec	8.9742 hectares								
Quantity of Public Open Space	Local	N'hood	District	Conservation	Future	Dual function ROS	Total			
	1.8588	1.5117	9.8229	1.4319	0	0	14.6253			
Public Open Space Provision	16.2%	16.2%								
Residual	1.1635 hec	tares								
Rationale	requiren • The province of the regional recreation of the recreat	nent. vision of pub townsite. onal facilities. o primary an	blic open spa It is self-con	strict open space ce in Mullewa in tained and prove l open space are	s commensu vides a rang	urate with its ge of active	s status as a and passive			
Actions	proceed and/or e Discoura with a addition Update	s going towa existing public nge new publ preference f s and upgrad	ords addition c open space. lic open space for cash-in-li es to existing	pace areas as sh s and upgrades ee being establis eu contribution: public open spa lewa Revitalisati	to activated hed in subd s. Cash-in- ce.	foreshore r ivisions or de lieu funds v	eserve areas evelopments vill facilitate			

6.12 Rangeway

RANGEWAY									
Objectives	 To support the development of the GRAMS reserve as the primary focus for recreation in the locality. Bring existing public open space areas in line with their hierarchy and service level. Minimise inefficiencies from unsuitable public open space provision. 								
Total Locality Area	179.8010 h	ectares							
Gross Subdivisible Area	129.8267 hectares								
Public Open Space @ 10%	12.9827 he	ctares							
Quantity of Public Open Space	Local	N'hood	District	Conservation	Future	Dual function ROS	Total		
	3.2056	2.1988	0	0	0	0	5.4044		
Public Open Space Provision	4.16%								
Residual	2.1737 hect	ares							
Rationale	 under it: existing Access a also an it The open open spation It is imp Aborigin calculati Despite upgradir quantity 	s 10% requir facilities. nd proximity mportant asp n space areas ace network. ortant to no al Corporatio ons as it is no the low percon the low percon g the qualit	ement. The v to the regio pect of the ex s of the Range te that the a on, although ot a public spa entage of pub cy of existing	blic open space, public open sp	s covered by the Wonthe onal opportu n Primary So he Bundiyar eation, has focus within bace areas i	v walkable ca lla Sporting C unities in the l chools further ra Aboriginal been deducto the locality s nstead of inc	tchments to Complex, are locality. r expand the Community ed from the should be on creasing the		
Actions	(2013).Continue consisteDispose proceedDiscoura	 upgrading the quality of existing public open space areas instead of increasing the quantity. Implement the relevant components of the 'Rangeway Utakarra Karloo Precinct Plan' (2013). Continued development and maintenance of all public open space areas to ensure consistent service provision in line with their hierarchy. Dispose of residual public open space areas as shown on the locality plan with direct proceeds going towards additions and upgrades to existing public open space areas. 							

6.13 Spalding

SPALDING										
Objectives	Recognia	 Minimise inefficiencies from unsuitable public open space provision. Recognise and support conservation opportunities within the locality. Bring existing public open space areas in line with their hierarchy and service level. 								
Total Locality Area	441.1619 h	441.1619 hectares								
Gross Subdivisible Area	135.0103 h	135.0103 hectares								
Public Open Space @ 10%	13.5010 he	13.5010 hectares								
Quantity of Public Open Space	Local	N'hood	District	Conservation	Future	Dual function ROS	Total			
	2.1428	0	0	1.1532	0.6623	19.9797	23.888			
Public Open Space Provision	17.69%									
Residual	3.017 hecta	ares								
Rationale	conserva is attribu • The who	ation purpose uted to dual f ple locality is p	es. The loca function regi covered by v	egional open spa lity exceeds its 10 onal open space. valkable catchme and east is a signi	0% requirem nts to existi	nent however ng facilities.	much of this			
Actions	proceed Continue consiste Discoura with a addition Recognia Regiona	 The Chapman River to the north and east is a significant focus for the locality. Dispose of residual public open space areas as shown on the locality plan with direct proceeds going towards additions and upgrades to existing public open space areas. Continued development and maintenance of all public open space areas to ensure consistent service provision in line with their hierarchy. Discourage new public open space being established in subdivisions or developments with a preference for cash-in-lieu contributions. Cash-in-lieu funds will facilitate additions and upgrades to existing public open space. Recognise and respond to conservation opportunities within the Chapman River Regional Park. Implement the long term aims of the 'Chapman Regional Wildlife Corridor Project: 								

6.14 Strathalbyn

STRATHALBYN										
Objectives	_			reas in line with t on opportunities			e level.			
Total Locality Area	166.4970 h	166.4970 hectares								
Gross Subdivisible Area	126.6205 h	126.6205 hectares								
Public Open Space @ 10%	12.6621 he	12.6621 hectares								
Quantity of Public Open Space	Local	N'hood	District	Conservation	Future	Dual function ROS	Total			
	0.7716	0	5.2986	1.5297	0	0	7.5999			
Public Open Space Provision	6.00%	6.00%								
Residual	0	0								
Rationale	 along the The loca density reduced The who The Chap The open spatian open spatian open spatian operadire 	e Chapman R lity is under locality with open space a le locality is o oman River to n space are ace network. the low perc ng the qualit	tiver and a de its 10% requ the quality areas. covered by w o the east is a as of Stratha entage of pu	rhood and distr dicated conserva uirement howeve and diverse rang alkable catchme a significant focus albyn Christian C blic open space, g public open sp	ation Arbore er it should ge of facilit nts to existin s for the loc College furt focus withir	etum. be noted tha ies compensa ng facilities. ality. her expand th n the locality s	t it is a low ting for the ne available hould be on			
Actions	 consister Recognis Regional Impleme Impleme Discoura with a 	percentage.								

6.15 Sunset Beach

SUNSET BEACH											
Objectives	Secure aBring exi	 Secure appropriate public open space contributions through future land development. Bring existing public open space areas in line with their hierarchy and service level. 									
Total Locality Area	186.3272 h	ectares									
Gross Subdivisible Area	120.2540 h	120.2540 hectares									
Public Open Space @ 10%	12.0254 he	12.0254 hectares									
Quantity of Public Open Space	Local	N'hood	District	Conservation	Future	Dual function Regional	Total				
	2.0062	1.7315	0	1.1081	3.5193	0	8.3651				
Public Open Space Provision	6.96%										
Residual	14.74 hecta	ires									
Rationale	 10% req The exist catchme The location foreshor Access to With the of open site of open site shown a shown a shown a shown a strength shown a sho	uirement. sting develo nts to existin lity at its fur e area to the o the Chapma future devel spaces will be n a large area is residual, i precinct plar	ped area of g facilities. rthest is from west, which an River to th lopment of re e enhanced. a of Eastbour t is not inter	ghbourhood and f the locality is n 900m in the so is a further signif e south also exp esidential areas a ne Reserve and nded that all of ntify what areas	s adequatel outh to 500 ficant recrea ands the ope nd a future p Spalding Par the area w	y covered b m in the nort tional focus. en space netw primary schoo k Horse and F rill be dispose	y walkable th from the ork. bl, the range Pony Club is ed of. The				

Actions	• Continued development and maintenance of all public open space areas to ensure consistent service provision in line with their hierarchy.
	• Complete then implement of the relevant components of the 'Sunset Beach Precinct Plan'.
	• Dispose of residual public open space areas, Eastbourne Reserve and the Spalding Park
	Horse and Pony Club, as shown on the locality plan with portions of public open space
	being redeveloped in these areas.
	 Implement the 'Geraldton-Greenough Coastal Strategy & Foreshore Management Plan' (2005).
	Implement the 'North Sunset Foreshore Management Plan' (2007).
	• Recognise and respond to conservation opportunities within the Chapman River
	Regional Park.
	• Implement the long term aims of the 'Chapman Regional Wildlife Corridor Project:
	Implementation Plan' (2001).

6.16 Tarcoola Beach

TARCOOLA BEACH										
Objectives	Bring exi	Bring existing public open space areas in line with their hierarchy and service level.								
Total Locality Area	138.9952 h	138.9952 hectares								
Gross Subdivisible Area	70.4607 he	70.4607 hectares								
Public Open Space @ 10%	7.0461 hect	7.0461 hectares								
Quantity of Public Open Space	Local	N'hood	District	Conservation	Future	Dual function Regional	Total			
	0.3284	0	1.6492	0	0	0	1.9776			
Public Open Space Provision	2.81%									
Residual	0	0								
Rationale	 10% req The loca foreshor Despite upgradir 	uirement. Ility at its fur re provides a the low percent ng the qualit	rthest is 250 range of faci entage of pu ty of existin	district and regio m from the fore lities and has dev blic open space, g public open s ge.	eshore area relopment p focus within	to the west. otential. 1 the locality s	The coastal hould be on			
Actions	 consister Discouration with a addition space. Implementation 	 Implement the 'Point Moore to Tarcoola Beach Foreshore Master Plan'. Implement the 'Geraldton-Greenough Coastal Strategy & Foreshore Management Plan' 								

6.17 Utakarra

UTAKARRA										
Objectives	 Minimise inefficiencies from unsuitable public open space provision including regional open space. Secure appropriate public open space contributions through future land development Bring existing public open space areas in line with their hierarchy and service level. Recognise and support heritage conservation opportunities within the locality. 									
Total Locality Area	494.0240 he	494.0240 hectares								
Gross Subdivisible Area	216.6223 he	216.6223 hectares								
Public Open Space @ 10%	21.6622 hee	ctares								
Quantity of Public Open Space	Local	N'hood	District	Conservation	Future	Dual function ROS	Total			
	7.6238 0 4.7001 0 1.745 8.6723 22.74									
Public Open Space Provision	10.50%	10.50%								
Residual	6.0637 hect	ares								
Rationale	requirem • With the spaces w • The who facilities	 Utakarra consists of local, district and regional open spaces and meets its 10% requirement. With the future development of residential areas, it is expected that the range of open spaces will be enhanced. The whole locality is covered by walkable catchments to existing facilities. The regional facilities to the north form part of the Wonthella Sporting Complex and are an important 								
Actions	 aspect of the expanded recreational opportunities in the locality. Continued development and maintenance of all public open space areas to ensure consistent service provision in line with their hierarchy. Implement the relevant components of the 'Rangeway Utakarra Karloo Precinct Plan' (2013). Dispose of residual public open space areas as shown on the locality plan with direct proceeds going towards additions and upgrades to existing public open space areas. Discourage new public open space being established in subdivisions or developments (other than those areas identified as future) with a preference for cash-in-lieu. Cash-in-lieu funds will facilitate additions and upgrades to existing public open space. Explore opportunities to secure a portion of the former Bluff Point to Narngulu Rail Corridor north of Ross Ariti Road and appropriately interpret the heritage listed platform. Explore alternative options for the use of the regional open space area east of Flores 									

6.18 Waggrakine

WAGGRAKINE										
Objectives	 Secure appropriate public open space contributions through future land development Bring existing public open space areas in line with their hierarchy and service level. Minimise inefficiencies from unsuitable public open space provision. Recognise and support conservation opportunities within the locality. 									
Total Locality Area	1,784.2977	1,784.2977 hectares								
Gross Subdivisible Area	275.0811 hectares									
Public Open Space @ 10%	27.5081 he	27.5081 hectares								
Quantity of Public Open Space	Local	N'hood	District	Conservation	Future	Dual function ROS	Total			
	2.2489	10.2799	0	2.5303	10.15	0	25.2091			
Public Open Space Provision	9.16%	9.16%								
Residual	0.041 hecta	res								
Rationale	 commun With the spaces w The deve existing t The Chap expande The operation of the space o	ity nursery) a e future deve vill be enhand eloped reside facilities. pman River F d recreationa n space area	and is only sli elopment of ed. ential areas o Regional Park al opportuniti	Id neighbourho ghtly under its 10 residential areas of the locality are facilities to the es in the locality ine Primary Scho	0% requirem and school e covered by south are ar	ent. sites, the ra y walkable ca n important a	nge of open tchments to spect of the			
Actions	 consister Impleme and size Discoura (other t contribu open spation Dispose proceeds 	 space network. Continued development and maintenance of all public open space areas to ensure consistent service provision in line with their hierarchy. Implement the Waggrakine Residential Estate Structure Plan with regard to the location and size of public open space. Discourage new public open space being established in subdivisions or developments (other than those areas identified as future) with a preference for cash-in-lieu contributions. Cash-in-lieu funds will facilitate additions and upgrades to existing public open space. Dispose of residual public open space areas as shown on the locality plan with direct proceeds going towards additions and upgrades to existing public open space areas. 								

6.19 Walkaway

WALKAWAY											
Objectives	Bring exi	isting public o	open space ar	eas in line with t	heir hierarch	ny and service	e level.				
Total Locality Area	58.4290 he	58.4290 hectares									
Gross Subdivisible Area	50.5335 he	50.5335 hectares									
Public Open Space @ 10%	5.0533 hec	5.0533 hectares									
Quantity of Public Open Space	Local	N'hood	District	Conservation	Future	Dual function ROS	Total				
	0.125	0	14.7965	0.1408	0	0	15.0623				
Public Open Space Provision	29.80%	29.80%									
Residual	0										
Comment	requiren • The prov regional recreatio • The who	• Access to the open space areas of the Walkaway Primary School further expands the									
Actions	with a addition	preference f s and upgrad	or cash-in-lie es to existing	e being establis eu contributions public open spa vant components	s. Cash-in-l ce.	lieu funds w	vill facilitate				

6.20 Wandina

WANDINA							
Objectives	 To support the development of the Derna POS as the primary focus for recreation in the locality. Secure appropriate public open space contributions through future land development Bring existing public open space areas in line with their hierarchy and service level. 						
Total Locality Area	321.0108 h	ectares					
Gross Subdivisible Area	292.0884 h	ectares					
Public Open Space @ 10%	29.2088 he	ctares					
Quantity of Public Open Space	Local	N'hood	District	Conservation	Future	Dual function ROS	Total
	8.9491	8.8689	0	7.9208	1.9072	0	27.646
Public Open Space Provision	9.31%						
Residual	0						
Rationale	 Wandina consists of local, neighbourhood and conservation public open spaces and is only slightly under its 10% requirement. With the future development of residential areas the range of open spaces will be further provided. The whole locality is covered by walkable catchments to existing facilities. The open space area of the Wandina Primary School further expands the available open space network. The locality at its furthest is around 1.5km from the foreshore areas to the west and provides further recreational opportunities. The future southern district sporting facility to the east will be an important aspect of 						
Actions	 the expanded recreational opportunities in the locality. Continued development and maintenance of all public open space areas to ensure consistent service provision in line with their hierarchy. Discourage new public open space being established in subdivisions or developments (other than those areas identified as future) with a preference for cash-in-lieu contributions. Cash-in-lieu funds will facilitate additions and upgrades to existing public open space. 						

6.21 Webberton

WEBBERTON								
Objectives	 Minimise inefficiencies from unsuitable public open space provision. Secure appropriate public open space contributions through future land development 							
Total Locality Area	253.0193 h	ectares						
Gross Subdivisible Area	35.3928 he	ctares						
Public Open Space @ 10%	3.5393 hec	tares						
Quantity of Public Open Space	h Local N'hood District Conservation Future Dual function ROS						Total	
	0	0	0	1.5841	0	0	1.5841	
Public Open Space Provision	4.48%							
Residual	0.813 hecta	ires						
Rationale	 Webberton is under its 10% requirement and currently no open space areas are developed. The residential area of Webberton is relatively small and is currently adjacent to Spalding / Strathalbyn to the north / east. The residential area of the locality is covered by walkable catchments from open spaces within these neighbouring localities. The Chapman River Regional Park facilities to the north are an important aspect of the expanded recreational opportunities in the locality. Despite the lower percentage of public open space, focus with in the locality should be on upgrading the quality of the existing public open space area and those within the 							
Actions	 adjacent localities. Dispose of residual public open space areas as shown on the locality plan with direct proceeds going towards additions and upgrades to existing public open space. Continued development and maintenance of all public open space areas to ensure consistent service provision in line with their hierarchy. Discourage new public open space being established in subdivisions or developments with a preference for cash-in-lieu contributions. Cash-in-lieu funds will facilitate additions and upgrades to existing public open space. 							

6.22 West End

WEST END							
Objectives	 To support the development of the foreshore (particularly Pages Beach) as the primary focus for recreation in the locality. Recognise and support conservation opportunities within the locality. Bring existing public open space areas in line with their hierarchy and service level. 						
Total Locality Area	234.0809 h	ectares					
Gross Subdivisible Area	18.1758 he	ctares					
Public Open Space @ 10%	1.8175 hec	tares					
Quantity of Public Open Space	Local	N'hood	District	Conservation	Future	Dual function ROS	Total
	0.588	0	0	2.1317	0	0	2.7197
Public Open Space Provision	14.96%						
Residual	0						
Rationale	 The West End consists of local and conservation open space and exceeds its 10% requirement. The whole locality is adequately covered by walkable catchments to existing facilities. The foreshore areas that surround the locality are a further significant recreational focus for the locality and have additional development potential. Access and proximity to the town centre increases the availability of public open space. 						
Actions	 Discourage new public open space being established in subdivisions or developments with a preference for cash-in-lieu contributions. Cash-in-lieu funds will facilitate additions and upgrades to activated foreshore reserve areas and existing public open space. Continued development and maintenance of all public open space areas to ensure consistent service provision in line with their hierarchy having due regard to the lease tenure of the area. Implement the 'Point Moore to Tarcoola Beach Foreshore Master Plan'. Implement the 'Geraldton-Greenough Coastal Strategy & Foreshore Management Plan' (2005). 						

6.23 Wonthella

WONTHELLA							
Objectives	 Secure appropriate public open space areas through land acquisition. Minimise inefficiencies from unsuitable public open space provision. Bring existing public open space areas in line with their hierarchy and service level. Investigate alternative options for the former Bluff Point to Narngulu Rail Corridor 						
Total Locality Area	370.3560 h	ectares					
Gross Subdivisible Area	101.0103 h	ectares					
Public Open Space @ 10%	10.1010 he	ctares					
Quantity of Public Open Space	Local	N'hood	District	Conservation	Future	Dual function ROS	Total
	0.6072	0	0	0	0	11.8036	12.4108
Public Open Space Provision	12.28%						
Residual	0.705 hecta	ires					
Rationale	recreation The who North W to the w Western Geraldto The Wo Roman C The forn opporture	 Wonthella consists of local and regional open spaces with significant areas of active recreation. The locality exceeds its 10% requirement. The whole locality is covered by walkable catchments to existing facilities although North West Coastal Highway does provide a significant pedestrian barrier to the areas to the west. Western areas of Wonthella are served by catchments within the Geraldton locality, the Geraldton Grammar School and proximity to the foreshore. The Wonthella Federation Community Park is currently leased by the CGG from the Roman Catholic Bishop of Geraldton. The former Bluff Point to Narngulu Rail Corridor (to the east of Wonthella) presents an opportunity to create a public open space link and would provide a buffer zone to the 					
Actions	 Webberton industrial area to the north and east. Dispose of residual public open space areas as shown on the locality plan with direct proceeds going towards the acquisition of the Wonthella Federation Community Park. Discourage new public open space being established in subdivisions or developments with a preference for cash-in-lieu contributions. Cash-in-lieu funds will facilitate the acquisition of the Wonthella Federation Community Park. Investigate opportunities to secure the former Bluff Point to Narngulu Rail Corridor south of Place Road, and develop it as a public open space linkage (Wonthella Greenway). 						

6.24 Woorree

WOORREE							
Objectives	_	 Bring existing public open space areas in line with their hierarchy and service level. Recognise and support conservation opportunities within the locality. 					
Total Locality Area	503.4996 h	ectares					
Gross Subdivisible Area	63.1415 he	ctares					
Public Open Space @ 10%	6.3142 hec	tares					
Quantity of Public Open Space	Local N'hood District Conservation Future Dual function Regional						Total
	0	0	8.2730	0	0	0	8.2730
Public Open Space Provision	13.10%						
Residual	0						
Rationale	 Woorree consists of district facilities, although the public open space areas are not central to the residential area. It is over its 10% requirement. The residential area is covered by walkable catchments to existing facilities including within the adjacent Strathalbyn locality. The Chapman River Regional Park to the north and east is a significant focus for the locality. 						
Objectives	 Continued development and maintenance of all public open space areas to ensure consistent service provision in line with their hierarchy. Discourage new public open space being established in subdivisions or developments with a preference for cash-in-lieu contributions. Cash-in-lieu funds will facilitate additions and upgrades to activated foreshore reserve areas and existing public open space. Recognise and respond to conservation opportunities within the Chapman River Regional Park. Implement the long term aims of the 'Chapman Regional Wildlife Corridor Project: Implementation Plan' (2001). 						

APPENDIX 1 – Guidelines for the Design of Public Open Space

GUIDELINES FOR THE DESIGN OF PUBLIC OPEN SPACE

1.1 Design Principles

The following outlines the key principles upon which open space should be designed, delivered, managed and located. These principles should be taken into consideration by the CGG, developers and the community when designing and creating areas of public open space.

1.2 Be Meaningful to Place and Community

The design of new areas of public open space should where possible reflect the local area in terms of materials, the uniqueness of the place and incorporate local features into the design.

Guidelines:

- Integrate physical geographic features of the place into new designs where these are central to the environmental values of the site (e.g. topographic features or significant trees).
- Conserve and integrate historical and heritage features in a manner that enhances their values (i.e. memorials and places to appreciate their former context and uses etc.).
- Use landform, landscape, public art, and interpretive media (signs, brochures etc) to tell the story of the place.

1.3 Be Multi-Functional and Adaptable

Multi-functional and flexible spaces adapt well to those changes, allowing for a range of users to enjoy the same space at different times and also for the space to evolve, mature and adapt over time to meet the changing needs and aspirations of the community it serves.

Guidelines:

- Explore design opportunities to locate recreation facilities close to other compatible facilities (e.g. community facilities such as indoor sports venues, schools, community halls etc.) to maximise joint use and minimise duplication of facilities and infrastructure.
- Co-locate active sports and passive recreation facilities to maximise use during and outside training and competition periods.
- Use amenity night lighting to encourage safe evening use and sport lighting to extend the usable hours and training/competition options.

1.4 Provide Diversity

Provide and design public open space to be diverse and meet the needs of the local community. Guidelines:

- Connect and relate existing or proposed public open space to adjoining land uses and open spaces in the area, to maximize opportunities for a diversity of experiences.
- Design for seasonal variation to provide a diversity of experience all year round (e.g. deciduous trees for variations in sun, shade, spring and autumn colour, etc.).
- Ensure that sports focused facilities also provide for passive recreation opportunities that cater for spectators and those who have accompanied the sports participant. In family situations this encourages parent as well as grandparent and sibling involvement.

1.5 Encourage Social Interaction

For many residents the public domain is the focal meeting place bringing residents together. Whether it be individuals meeting while walking their dogs in the park, parents meeting other parents with toddlers at the playground or children and adults playing or watching sport, well planned spaces promote opportunities to interact socially.

Guidelines:

- Design paths, crossing spaces and seat locations to encourage incidental social interaction.
- Plan and design spaces to minimise user conflicts (common conflict issues include off-leash dog behaviour, cycle and pedestrian clashes, noise generating activities adjoining quieter areas or local residences).

1.6 Promote Health and Well Being

With 90% of Australia's population now living in urban environments in which the quantum of private open space is also decreasing, community access to high quality, safe public open space plays an increasingly critical role in the community's health and wellbeing.

Guidelines:

- Provide on and off-road pedestrian and cycle connections to open space to encourage walking and cycling access and incidental physical activity, to promote environmentally friendly transport options and to cater for independent mobility, especially for adolescents needing access to sports facilities.
- Provide space for rest and relaxation where interaction with the natural environment can best be experienced (contact with nature trees and birds is one of the principal reasons cited for visiting parks).
- Create a comfortable microclimate throughout the year and through variations in weather. Design to maximise seasonal opportunities for summer shade and cooling breezes (includes shade structures over larger play facilities, until such time as trees can provide the same shade), winter sun and protection from cold winds (use of deciduous trees and planting as wind barriers) and shelter from rain (trees, picnic shelters, etc.).
- Incorporate amenity lighting wherever practical to encourage evening use and an enhanced sense of safety.
- Maximise the visibility of open spaces from within the development. Enhance the sense of safety and personal security through the application of Designing for Crime.

1.7 Provide Equity and Accessibility

Research shows that residents with easy access to parks tend to exercise more. Also those well visited public open spaces are usually those that are easily accessible to all members of the community.

Guidelines:

- Ensure designs cater for people who have sensory or mobility impairments and also for those with prams. Other facilities and design features such as drinking bubblers that allow wheelchair access, seats with armrests and companion spaces for wheelchairs beside seats should be common features.
- Ensure that the layout and design offers recreation opportunities that are inclusive of all members of the community.
- Maximise all connections to the space, especially for pedestrians, cyclists, and users of public transport.
- Provide facilities that are responsive to the cultural as well as the recreational needs of the community that the space will serve.

1.8 Be More Environmentally Sustainable

When development within our towns is intensifying, when climate change is a recognised phenomenon and when drought cycles are impacting the health of open space areas, the role of our public spaces in conserving and enhancing the natural environment and returning ecological values to our environment becomes ever more critical.

Guidelines:

- Retain and extend the existing natural values of the space wherever practical, including enhancement of biodiversity, flora and fauna habitat value, water and energy conservation and microclimate.
- Locate, orientate and design the open space network to maximise wildlife connectivity and reduce habitat fragmentation.
- Protect conservation areas and manage parklands as buffers to such environments, providing controlled access between the managed parklands and natural or rehabilitated areas where this will not compromise the environmental values of the conservation area.
- Locate open spaces for maximum walkable and public transport access by as many in the community possible to reduce car dependent access.

1.9 Financial Sustainability

The CGG recognises the importance of financial sustainability and the need to develop robust financial projections based on public open space condition, capacity and functionality. In reality improving or replacing facilities of an existing public open space is financially advantageous and for little cost restarts the life of an existing park or area of public open space. Careful design and planning of the more significant and expensive facilities can also ensure sustainable ongoing maintenance costs and achieve longer lifecycles.

Guidelines:

- Design open space with minimisation of maintenance costs in mind, wherever practical. This often goes hand in glove with environmental sustainability (e.g. use of native species, low water demand planting, minimal mowing requirements, use of recycled materials). For the CGG some of the highest ongoing costs are associated with irrigation.
- Consider the life cycle costs of materials in constructing and managing the open space including, operating, maintaining, replacing, and de-commissioning facilities and services.
- Incorporate revenue raising opportunities where appropriate (e.g. cafes, kiosks, events, bike hire etc.) where these meet the criteria of: being leisure and recreation oriented; compatible with adjoining land uses and being actively integrated into the open space; being effectively and financially operated; and directly contributing revenue to the cost of maintaining and upgrading the open space or facilities.

APPENDIX 2 – Guidelines for the Preparation of Foreshore/Conservation Management Plans



Guidelines for the Preparation of Foreshore / Conservation Management Plans



Preface

This guideline has been prepared to help guide proponents in the preparation of Foreshore / Conservation Management Plans for the planning, restoration and management of conservation areas and foreshore reserves within the municipal boundary of the City of Greater Geraldton (CGG).

This document is a guideline. Proponents are encouraged to engage with the CGG early in the planning and development process to ensure that the CGG's requirements are met for the restoration and management of Public Open Space designated for the primary purpose of conservation.

Cover Photo: Chapman River, Spalding

Contents

Prefa	ace	1
1.	Introduction	3
2.	Components of the Management Plan	4
	2.1. Introduction	4
	2.2. Background	4
	2.3. The Natural and Social Environment	5
	2.3.1. Physical Environment	5
	2.3.2. Heritage and Social Values	7
	2.4. Management Issues	8
	2.5. Opportunities	10
	2.6. Overall Plan for the POS	10
	2.7. Monitoring, Evaluation, Reporting and Improvement Plan	10
	2.8. Management Actions	10
3.	Data Management	10
4.	Handover	10
5.	Checklist	13
List	of Useful Resources	14
Refe	erences	16

Cover Photo: Chapman River, Spalding

1. Introduction

This guideline has been prepared to help guide proponents in the preparation of Foreshore / Conservation Management Plans (FCMPs) for the planning, restoration and management of conservation areas and foreshore reserves within the municipal boundary of the City of Greater Geraldton (CGG). The List of Useful Resources in this document includes links to examples of Conservation / Foreshore Management Plans.

The CGG covers an area of 12625.5 square kilometres which also incorporates the towns of Walkaway and Mullewa. There is less than 18% of remnant vegetation remaining in Greater Geraldton. To protect and better manage biodiversity assets in this area, the CGG has prepared a *Draft Local Biodiversity Strategy 2013* to help contribute to meeting the objectives of the CGG's *Strategic Community Plan 2011-2021*.

This guideline has been developed within the CGG's Towards a Sustainable Future Framework, alongside the *City of Greater Geraldton's Public Open Space Strategy (2013)* and aligns with the objectives of the *Draft Local Biodiversity Strategy (2013)*, 'Environmental protection is also an essential role of public open space, through habitat and biodiversity conservation and air and water quality management. Open space is also highly valued for its intrinsic benefits, such as natural beauty, its contribution to neighbourhood character, its cultural heritage value and the emotional attachment people may have to it. The value that public open space provides to the community is a combination of social, economic and environmental factors.' (pg. 2)

Under Section 6.5 Construction and Maintenance of the Public Open Space Strategy, the City requires detailed management plans for the development of Public Open Space (POS) areas that involve foreshore areas or areas primarily for conservation purposes. This guideline or 'proforma' will assist the proponent to prepare a FCMP's that meets the CGG's requirements. The proponent should refer to the Public Open Space Guidelines in the CGG's Land Development Guidelines (March 2012) for minimum design requirements for the constructed elements of the area.

The Public Open Space Strategy states that the CGG will require that new public open space be developed (to a minimum standard) and maintained by the subdivider for a 5 year period. The preparation of a detailed management plan will assist the proponent and the CGG to work towards a shared vision for ongoing management of the conservation / foreshore area.

This document is a guideline. Proponents are encouraged to engage with the CGG early in the planning and development process to ensure that the CGG's requirements are met for the restoration and management of Public Open Space designated for the primary purpose of conservation.

2. Components of the Management Plan

2.1. Introduction

Site Location

A description of the site in the local and catchment context, information pertaining to land tenure, ownership/vesting and zoning best presented in maps and accompanying text. Supporting documents listed or attached as appendices.

Area and Scope

Define the area, purpose and scope of the management plan.

Management commitment

A statement from the proponent committing to the implementation of the management plan (over 5 years) as agreed to with the CGG.

2.2. Background

Literature review

Undertake a literature review to link the objectives actions of management and restoration of the site with existing local and catchment natural resource management documents (plans/surveys/initiatives).

Legislative and policy framework

Identify legislative and policy requirements relevant to the management and restoration of the site (eg. *Aboriginal Heritage Act 1972*) as described in *the Directions Paper on the Integration of NRM into Land Use Planning* (WAPC 2011). Set a context for the plan in the planning framework.







Moresby Range

2.3. The Natural and Social Environment

The natural and social environment create liveable spaces for the community. This interaction has been identified as a priority of Greater Geraldton's community in the 2029 and beyond community charter.

2.3.1. Physical Environment

Management planning requires that the current condition of the site is to be reviewed and documented. This will assist with the development of specific management recommendations for the site. Should the proponent undertake condition assessments of the site, the CGG encourages the use of published or agreed methods of assessment that can be easily repeated for the purpose of monitoring and evaluation.

Climate

Description of climate, seasons and rainfall averages, to assist with the planning of restoration – timing of weed control and revegetation. Information pertaining to climate can be found on Bureau of Meteorology website < http://www.bom.gov.au/>.

Landform and topography

Describe the natural and built environment of the site. Describe connectivity of the area to adjacent natural features. Include topographical mapping to show slope where appropriate.

Geology and Soils

Geology and the soil type within the area should be described, highlighting related management issues including erosion, contaminated sites and nutrient leaching. Investigate land uses in surrounding areas for potential impact on stability of the landform, for example, sand extraction.

Hydrology (& Hydrogeology)

Describe the hydrological processes of the site, including surface water and groundwater flows; and natural drainage of the area. The CGG does not generally support the disposal of urban stormwater into POS's for the primary purpose of conservation or foreshore protection.

Native vegetation mapping and condition assessment

Present results from native vegetation surveys that have occurred within or near the sites. Undertake survey to ascertain current condition, map vegetation types and cover. For more information to guide methodology refer to the EPA Guidance Statement No. 51: *Terrestrial flora and vegetation surveys for environmental impact assessment in Western Australia* (Environmental Protection Authority 2004b) and Western Australian Planning Commission (WAPC) Bush Forever (Western Australian Planning Commission 2000). National Vegetation Information System (NVIS) (National Heritage Trust 2003) is a standardised nationally consistent method of recording vegetation. The attached List of Useful Resources contains material that refers to flora and vegetation types associated with landscapes/waterscapes of the CGG.

Fauna and habitat

Natural features of the site (and connectivity to nearby areas) function to provide habitat for fauna. These features should be described, and where possible, a list of fauna endemic to the area provided. A fauna survey may be required for sites of high conservation value, survey advice should be sought from the Department of Environment and Conservation (DEC) who administer the *Conservation and Land Management Act 1984* and *Wildlife Conservation Act 1950*. Also refer to the Environmental Protection Authority (EPA) Guidance Statement No. 56: *Terrestrial fauna surveys for environmental impact assessment in Western Australia* (Environmental Protection Authority 2004a).

Weed mapping

The proponent is required to undertake weed mapping of the project area. A weed species list is to be included in the plan, including prioritisation and invasiveness, for control.

If a weed community is providing bank stability or fauna habitat, any programmed removal strategy should be carefully considered to ensure continued bank stability and habitat. A staged removal should be considered in this instance.

Department of Environment and Conservation (2011) Nature Conservation Service Biodiversity Standard Operating Procedure Techniques for mapping weed distribution and cover in bushland and wetlands. DEC, SOP No: 22.1.



Lantana Lantana camara





Fountain grass Pennisetum setaceum

African boxthorn Lycium ferocissimum



Castor Oil Plant Ricinus communis

2.3.2. Heritage and Social Values

Yamatji Country

The natural landscapes and seascapes in the municipal area of the CGG have significant cultural heritage value to Aboriginal people of Yamatii country. A number of cultural groups have connection to country within this area; hence proponents should expect that POS for the primary purpose of conservation will most likely be of heritage value to Aboriginal people and may be listed under the Aboriginal Heritage Act 1972. Proponents need to contact the regional Department of Indigenous Affairs office or access DIA's website <http://dia.wa.gov.au/en/Site-Search/>to conduct a heritage site search. The Yamatji Land and Sea Council (YLSC) should be contacted to ascertain which cultural group needs to be consulted with for the project area. The YLSC has published a Community Guide on Cultural Advice for people working with Aboriginal people in the Pilbara and Yamaiti region that will assist proponents in consulting with Yamatji people appropriately, found at <http://www.yamatji.org.au/go/information-centre/factsheets-and-forms>, to ensure that Aboriginal people are engaged in the planning and at the implementation stage of the management plan.

Heritage value post European settlement

Maintaining heritage values and places is essential for a community's sense of place, cultural identity and well-being. Historical value and existing management strategies for public use of the area and its surrounds should be outlined, including opportunity to preserve this information for future generations. The CGG's library is a useful resource for heritage information in the region. For advice on heritage matters contact the Heritage Council of WA <<u>http://www.heritage.wa.gov.au</u>>.

Social environment

The proponent is required to highlight the social value of the site; including recreational use, education, connectivity with local or regional initiatives (for example, stock routes, the CGG's 2029 and beyond Million Trees project). Existing and previous uses may include recreation, education, community involvement, amenity, access, and impacts in and near the management area.



Banksia sessilis



Casuarina obesa

2.4. Management Issues

Climate Change

Climate change is a real threat to all communities and is already having an effect in our region. The CGG has adopted a *Climate Change Policy* for implementation to address climate change as recommended in the *Climate Change Adaptation Action Plan* in 2011 (Batavia Regional Councils). In terms of managing conservation areas, projected increases in temperature; and decreasing annual rainfall coupled with event intensity exacerbates management issues including rising sea levels, fire, erosion, loss of biodiversity and potential environmental health concerns.

Loss of biodiversity and habitat

There is less than 18% of remnant vegetation in the Greater Geraldton region (LBS, 2013). The condition of native vegetation is varied, the increasing threats and pressures in periurban environments continue to impact on biodiversity. Hence, 'environmental protection is also an essential role of public open space, through habitat and biodiversity conservation and air and water quality management' (POS, pg. 7). Improved management of POS's for the primary purpose of conservation is essential to see the maintenance, and hopeful improvement, of the biodiversity assets in the region. Local provenance seedlings are only to be used for regeneration, rehabilitation and for landscaping.

Invasive Species

Weeds, invertebrate pests and feral animals place increasing pressure on biodiversity assets in the CGG. The CGG and the Shire of Chapman Valley have worked together to develop a *Draft Invasive Species Management Plan (2013)*. This plan will guide investment and effort for controlling invasive species in Greater Geraldton. The proponent should commit to participating in local and regional baiting programs where opportunity arises.

The proponent is required to identify invasive species that impact on the site, formulate a control program that is appropriate and describe control methods. As a guide, the *Draft Invasive Species Management Plan (2013)* lists invasive species and recommended methods of control. This plan does not include invertebrate pests – ant control needs to be considered to ensure the success of revegetation projects.

Erosion

Outline the processes of erosion acting on the site. Hydrology should be carefully studied to ensure that existing and proposed infrastructure for the site does not contribute to or exacerbate erosion processes in the area. Should stabilisation of soils/banks of waterways be required, advice should be sought from the Department of Water (DOW) to the appropriate technique to address the issue. Furthermore, large woody debris in waterways provide in-stream habitat and function to slow water and advice must be sought from the DOW prior to the realignment or removal of large woody debris from a waterway (or river bank).

Uncontrolled access

This management plan provides opportunity to rationalise access to the site. Access to the conservation /foreshore area should be sensitive to the site. Outline how access will be managed. Consideration should include, but not be limited to, fencing, pathways, vegetation buffers, litter and pest control.

Fire control

The CGG requires the proponent to address fire control (and access) in the management plan. The existing fire regime should be identified, including fire breaks and access lines and fire impacts. Include a fire management plan or bushfire protection plan where appropriate, Fire and Emergency Services Authority of Western Australia may provide guidance for bush fire protection and contact the CGG for specific advice.

Environmental Health Issues

Soil Health

Phytopherthora cinnamomi has been reported in the Mid West region. Environment Australia publication Threat Abatement Plan for Dieback caused by the root-rot fungus Phytopherthora cinnamomi (2002) states that 'spread of the pathogen as a result of human activity can be managed to varying levels of success depending on location and the resources available; spread resulting from human activity can be reduced by limiting people's access to certain areas (quarantine) and ensuring that when infected areas are entered the potential to transfer infected material to uninfected areas is minimised (hygiene)'(pg. 7); for example, wash down of equipment and machinery. Please refer to document for hygiene strategies to ensure that infected material is not transferred into uninfected conservation areas.

Mosquitoes

If applicable to the site, describe proposed management that will lessen the provision of habitat for mosquito breeding. Environmental health information pertaining to mosquito management <http://www.public.health.wa.gov.au/3/1188/2/mosquito_management.pm>.

Water quality

Describe proposed management that will lessen the impact and spread of water borne diseases and/or pathogens for sites with natural or constructed water features.



Community coastal planting – Pages Beach



Rare Flora Survey – Moresby Range

2.5. Opportunities

This section highlights any opportunities identified by the proponent during the preparation of the plan for the POS. For example, there may be natural resource management opportunities for the future management of the area; potential partnerships; community engagement; local or regional project ideas; feedback from adjacent landholders; or individuals or community groups expressing interest to be involved in the POS.

2.6. Overall Plan for the POS

The proponent is to provide design concepts for the site; including access, restoration areas, signage, natural and built features, this is best presented in figures with accompanying text. The plan is to include all elements of the plan, highlighting changes to the natural and built environment.

2.7. Monitoring, Evaluation, Reporting and Improvement Plan

The CGG requires the proponent to adopt consistent methodologies to auspice the repetition of survey work (methodologies outlined in Section 2.3). The Australian Government's Monitoring, Evaluation, Reporting and Improvement (MERI) framework standardises the monitoring and evaluation component of the plan and also contributes to the development of a SMART project. The CGG encourages the proponent to adopt the MERI framework (and program logic), or a similar published framework, for the planning of the project.

2.8. Management Actions

Table 1. Management Actions – methods, implementation, monitoring and evaluation, and reporting for improvement (pg. 12) summarises a series of actions to address management issues within conservation areas and foreshore reserves. The proponent should formulate solutions with the objective of maintaining, and where possible, improving the condition of the site. The CGG encourages proponents to adopt a 'best practice' and informed approach when implementing works; the CGG is able to provide technical advice to assist during the design and implementation of treatments for the site. Local provenance seedlings are only to be used for the regeneration, rehabilitation and for landscaping of POS's for the primary purpose of conservation.

3. Data Management

The proponent to present data in a consistent format with the CGG's Geographical Information System. Data provided to the CGG (shape files) for mapping the condition and improvement of the project area. On POS handover, soft and hard copies of information relevant to the management and restoration of the POS be presented to the CGG to assist Council with ongoing maintenance of the area.

4. Handover

The proponent is to achieve specific time bound targets for restoration, to the satisfaction of the CGG, as agreed in the management plan prior to POS handover. Annual reporting and effective communication with the CGG, of the project's progress will assist the proponent with the implementation and improvement of the plan for POS handover. As stated in Section 9.0, on POS handover, soft and hard copies of information pertaining to the project is to be provided to the CGG.

Action	Design/ Methodology	Implementation schedule	Monitoring, Evaluation Plan	Reporting & Improvement
Revegetation	Comprehensive native species list, local provenance, re-veg sites, site preparation,	Priority; Timing; cost; suppliers; responsibility;	Photo points	Reporting frequency
	planting methods and density.	Maintenance.	Vegetation surveys	Collaborative and adaptive management for improvement
Weed control	Weed survey, mapping, invasiveness, legal requirements, prioritisation, control methods.	Priority; Timing; cost; suppliers; responsibility;	Photo points	Reporting frequency
		Maintenance.	Weed survey	Collaborative and adaptive management for improvement
			Weed mapping	
Pest control	Target species (ants and rabbits threat to re-veg), control methods.	Priority; Timing; cost; suppliers; responsibility;		Reporting frequency
	Commitment to participate in local and regional invasive species control programs.	Maintenance.		Collaborative and adaptive management for improvement
Access	Rationalisation of access – proposed alignment of fencing, bollards, signage to protect conservation	Priority; Timing; cost; suppliers; responsibility;	Photo points	Reporting frequency
	values and to provide recreational amenity mapped and pegged. Site inspection with CGG for agreed alignment (and materials used as detailed in Land Development Guidelines) is recommended prior to installation.	Maintenance.	Site inspection	Collaborative and adaptive management for improvement
Mitigate erosion	Areas for stabilisation, control methods. Seek advice from the Department of Water prior to the realignment of woody debris in the channel of waterways.	Priority; Timing; cost; suppliers; responsibility; Maintenance.	Photo points	Reporting frequency Collaborative and adaptive management for improvement

Table 1. Management Actions – methods, implementation, monitoring and evaluation, and reporting for improvement

Community education	Communicate values – historic, cultural heritage, 'let it grow', 'take rubbish with you'. Bird watching. Engage community in restoration activities where possible. CGG's 2029 and beyond Million Trees project.	Priority; Timing; cost; suppliers; responsibility; Maintenance.	Photos Signage Links with existing programs	Reporting frequency Collaborative and adaptive management for improvement
Action	Design/ Methodology	Implementation schedule	Monitoring, Evaluation	Reporting & Improvement
Recreational amenity	Provision of passive recreational infrastructure to a minimum standard detailed in the CGG's Land Development Guidelines for POS. For example, design may include hierarchy of access trails, seating, signage, shelter, bird hide.	Priority; Timing; cost; suppliers; responsibility; Maintenance.	Photos Mapping	Reporting frequency Collaborative and adaptive management for improvement
Fire management	Remove rubbish and weeds, undertake fuel reduction and create fire breaks in liaison with the CGG.	Priority; Timing; cost; suppliers; responsibility; Maintenance.	Photos Mapping	Reporting frequency Collaborative and adaptive management for improvement

5. Checklist

Table 2. Checklist for the preparation of Foreshore / ConservationManagement Plans.		
	1.	Introduction Site location; land tenure; area and scope; management commitment
	2.	Background Literature review; legislative and policy framework; planning context
	3.	Site Features <i>Physical environment</i> – climate; landform and topography; geology and soil type; hydrology; native vegetation mapping; fauna and habitat; weed mapping (include condition assessment) <i>Heritage Values</i> – Yamaji people; post European settlement. <i>Social environment</i> – recreation value.
	4.	Management Issues Loss of biodiversity and habitat Invasive species Access Change in hydrological processes Erosion Conflicting recreational uses Climate change
	5.	Opportunities Improved condition, access, educational experiences, links with range of stakeholders user groups.
	6.	Overall design plan Proposed changes to the area.
	7.	Management Actions & Implementation Schedule – tables and figures. Including methodology and a monitoring, evaluation, reporting and improvement framework consistent with the CGG's requirements.
	8.	MERI framework, or other published monitoring and evaluation methodology, including standardised methods for condition assessments.
	9.	Data management Reporting to CGG in digital and hard copy form. Digital data, in form of shape files, encouraged for the ongoing management and improvement of the area.

List of Useful Resources

Australian Government - Monitoring, Evaluation, Reporting & Improvement (MERI) Toolkit found at http://www.nrm.gov.au/funding/previous/meri/meri-toolkit.html

Australian Government Department of Sustainability, Water, Population and Communites Invasive Species http://www.environment.gov.au/biodiversity/invasive/index.html

ATA Environmental (2005) *Geraldton Greenough Coastal Strategy & Foreshore Management Plan.* City of Geraldton Greenough.

Batavia Regional Organisation of Councils (2011) *Climate Change Adaptation Action Plan.* Batavia Regional Organisation of Councils, WA.

Beckwith Environmental Planning (2010) *City of Geraldton-Greenough Coastal Communities Strategy.* Northern Agricultural Catchments Council

2009. Draft Chapman River Estuary Management Plan. City of Greater Geraldton.

City of Greater Geraldton (2013) *Draft Local Biodiversity Strategy*. City of Greater Geraldton & the Shire of Chapman Valley, WA.

City of Greater Geraldton (2011) *Towards a Water Sensitive Future Greater Geraldton Water Planning and Management Strategy.* City of Greater Geraldton, WA.

Commonwealth of Australia. 2006. *A field manual for surveying and mapping nationally significant weeds.* Bureau of Rural Sciences, ACT.

Department of Environment and Conservation. (2011) *Biodiversity Standard Operating Procedure. Techniques for mapping weed distribution and cover in bushland and wetlands* SOP No:22.1. Perth, WA.

Department of Environment and Conservation 1999, *Environmental Weed Strategy for Western Australia*, Department of Environment and Conservation, Perth, Western Australia.

Department of Indigenous Affairs Aboriginal Heritage Act – Heritage Site Search http://dia.wa.gov.au/en/Site-Search/>

Department of Water (DoW) Stormwater Management Manual for Western Australia

Desmond, AJ & Heriot, SM (2002) Fauna Monitoring of the Chapman Regional Wildlife Corridor. Shire of Greenough, WA.

Ecoscape, (2010) *Geraldton Regional Flora and Vegetation Survey*. Western Australian Planning Commission.

Environmental Protection Authority 2004a, *Guidance for the Assessment of Environmental Factors: Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia*, Guidance Statement No. 56, Environmental Protection Authority, Perth, Western Australia. Environmental Protection Authority 2004b, *Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment: Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia*, Guidance Statement No. 51, Environmental Protection Authority, Perth, Western Australia.

Environment Australia – Weeds found at http://www.environment.gov.au/biodiversity/invasive/weeds/index.html

GHD. (2001). *Vegetation Quality and Assessment.* Chapman Regional Wildlife Corridor. Shire of Greenough & City of GeradIton.

Miradi Adaptive Management Software for Conservation Projects found at https://miradi.org/.

National Vegetation Information System (NVIS) (Natual Heritage Trust 2003). Found on world wide web <<u>http://www.environment.gov.au/erin/nvis/about.html</u>>. Australian Government.

Northern Agricultural Catchments Council (2012) NACC Garden Guides. NACC. Found at http://nacc.com.au/pages/4982/native-garden-guides>

Siemon, N, 2013. *Draft Invasive Species Management Plan*. City of Greater Geraldton & the Shire of Chapman Valley, WA.,

Siemon, N.L. (2001) *Chapman River Foreshore Assessment.* Water and Rivers Commission WRM 23.

Siemon, N.L. (2002) *Foreshore Assessment Chapman River* – Chapman Wildlife Corridor Project. Shire of Greenough & City of Geraldton.

Shire of Greenough. 2005. *Greenough River Estuary Management Plan 2005 Update*. Shire of Greenough.

Water and Rivers Commission - Water Notes

http://www.water.wa.gov.au/Managing+water/Rivers+and+estuaries/Restoring/Water+facts/d efault.aspx

Water and Rivers Commission - Water Facts

http://www.water.wa.gov.au/Managing+water/Rivers+and+estuaries/Restoring/Water+notes/ default.aspx

Water and Rivers Commission (2002) *Waterways River Restoration Manual.* River Restoration Series. Water and Rivers Commission. http://www.water.wa.gov.au/Search+results/default.aspx?g=river+restoration

Water and Rivers Commission (2001) *Planning for Waterways Management Guidelines for Preparing a River Action Plan.* Water and Rivers Commission. Report No. RR14.

Weeds Australia (undated) (online). *Weeds Australia*. Available World Wide Web: ">http://www.weeds.org.au>

Western Australian Herbarium, CALM (undated) (online). *Florabase*. Available World Wide Web:<http://www.florabase.calm.wa.gov.au>

Western Australian Planning Commission (2011) *Directions Paper on the Integration of NRM into Land Use Planning.*

Yamaji Land and Sea Council. Community Guide *Cultural Advice for people working with Aboriginal people in the Pilbara and Yamajti region*. Found at http://www.yamatji.org.au/go/information-centre/factsheets-and-forms>

Yamaji Land and Sea Council. Community Guide *Research Heritage and Community*. Found at <<u>http://www.yamatji.org.au/go/information-centre/factsheets-and-forms></u>

References

Department of Environment and Conservation. (2011) *Biodiversity Standard Operating Procedure. Techniques for mapping weed distribution and cover in bushland and wetlands* SOP No:22.1. Perth, WA.

Department of Environment and Conservation 1999, *Environmental Weed Strategy for Western Australia*, Department of Environment and Conservation, Perth, Western Australia.

Department of Indigenous Affairs website found at <www.dia.wa.gov.au>

Environment Australia. 2002. *Threat Abatement Plan for Dieback caused by the root-rot fungus Phytopherthora cinnamomi*. Commonwealth of Australia. ISBN 0 642 248633.

Environmental Protection Authority 2004a, *Guidance for the Assessment of Environmental Factors: Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia*, Guidance Statement No. 56, Environmental Protection Authority, Perth, Western Australia.

Environmental Protection Authority 2004b, *Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment: Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia*, Guidance Statement No. 51, Environmental Protection Authority, Perth, Western Australia.

Swan River Trust (2012) *Guidelines for developing foreshore management plans in the Swan Canning Riverpark Part A.* Swan River Trust, Perth, WA.

Swan River Trust (2012) *Guidelines for developing foreshore restoration plans in the Swan Canning Riverpark Part B.* Swan River Trust, Perth, WA.

Water and Rivers Commission (2002) *Waterways River Restoration Manual.* River Restoration Series. Water and Rivers Commission.

Water and Rivers Commission (2001) *Planning for Waterways Management Guidelines for Preparing a River Action Plan.* Water and Rivers Commission. Report No. RR14.

Yamatji Land and Sea Council's website found at <www.yamatji.org.au>

APPENDIX 3 – Public Open Space Locality Maps



REGIONAL OPEN SPACE

Regional open space may accommodate important recreation and organized sport spaces as well as significant conservation and/or environmental features. They may provide substantial facilities for organised sport, play, social interaction, relaxation, and enjoyment of nature. Regional open space can assist to protect biodiversity conservation and environmental values through retention of bushland, wetlands and other natural features. Areas include those shown on the Greater Geraldton Structure Plan 2011.



DUAL FUNCTION REGIONAL OPEN SPACE

Regioanl open space is considered 'dual function' if it contains recreational facilities/infrastructure, is regularly maintained and services by the City and, functions in accordance with Element 4, R8 of Liveable Neighbourhoods.

FORESHORE RESERVE

The area of land set aside in public ownership to allow for likely impacts of water resources (including coastal, wetlands and waterways etc.) and provides protection of public access, recreation and safety, biodiversity and ecosystem integrity, landscape, visual landscape, indigenous and cultural heritage.



ACTIVATED FORESHORE RESERVE

Activated foreshore reserve demostrates areas within foreshore reserves that contain existing infrastructure and/or have potential for attracting residents for active or passive recreational purposes. These areas should be considered as priority areas for development and expenditure.



DISTRICT OPEN SPACE

District open space is principally designed to provide for organized formal sport. They will very likely include substantial recreation space and some nature space. Their design and function should consider biodiversity principles and environmental management goals. District open space serves several neighbourhoods with players and visitors travelling from surrounding districts.



NEIGHBOURHOOD OPEN SPACE

Neighbourhood open spaces serve as the recreational and social focus of a community. Residents are attracted by the variety of features and facilities and opportunities to socialise. They can assist to engender sense of place and protect specific conservation values through retention of nature spaces. Neighbourhood open space may be used for junior sport or sports training if appropriate space is available.

LOCAL OPEN SPACE

Local open space is usually small parklands that service the recreational needs of the immediate residential population. They are primarily used for recreation and may include small areas of nature space. Local open spaces are unlikely to be used for any formal or informal sport.



CONSERVATION

Conservation areas represent intact or rehabilitated examples of the Western Australian natural environment such as bushland, wetlands and coastal habitats. These areas have been set aside for conservation to preserve biodiversity and wildlife habitats. Any site development should be considerate of the conservation intent of these areas. Appropriate levels of public access will be determined and managed. Recreation is to be strictly limited to uses that have low impact on the area.



Future open space areas that are not as yet created but are shown on an endorsed structure plan.



Areas of open space that are either too small to accommodate sustainable public open space or are considered surplus to the overall open space requirements for a locality. The revenue generated from their disposal could be directed into upgrades or acquisition of public open space in the locality.

DEDUCTIONS

Deductions from the locality area used to determine the gross subdivisible area. Deductions include non-residential land uses that do not generate the need for a contribution to public open space (such as major roads, schools, drainage sumps, regional open space, industrial, rural-residential and commercial areas).

GROSS SUBDIVISIBLE AREA

The area of a locality minus any deductions. This area is then used to calculate the percentage of public open space.

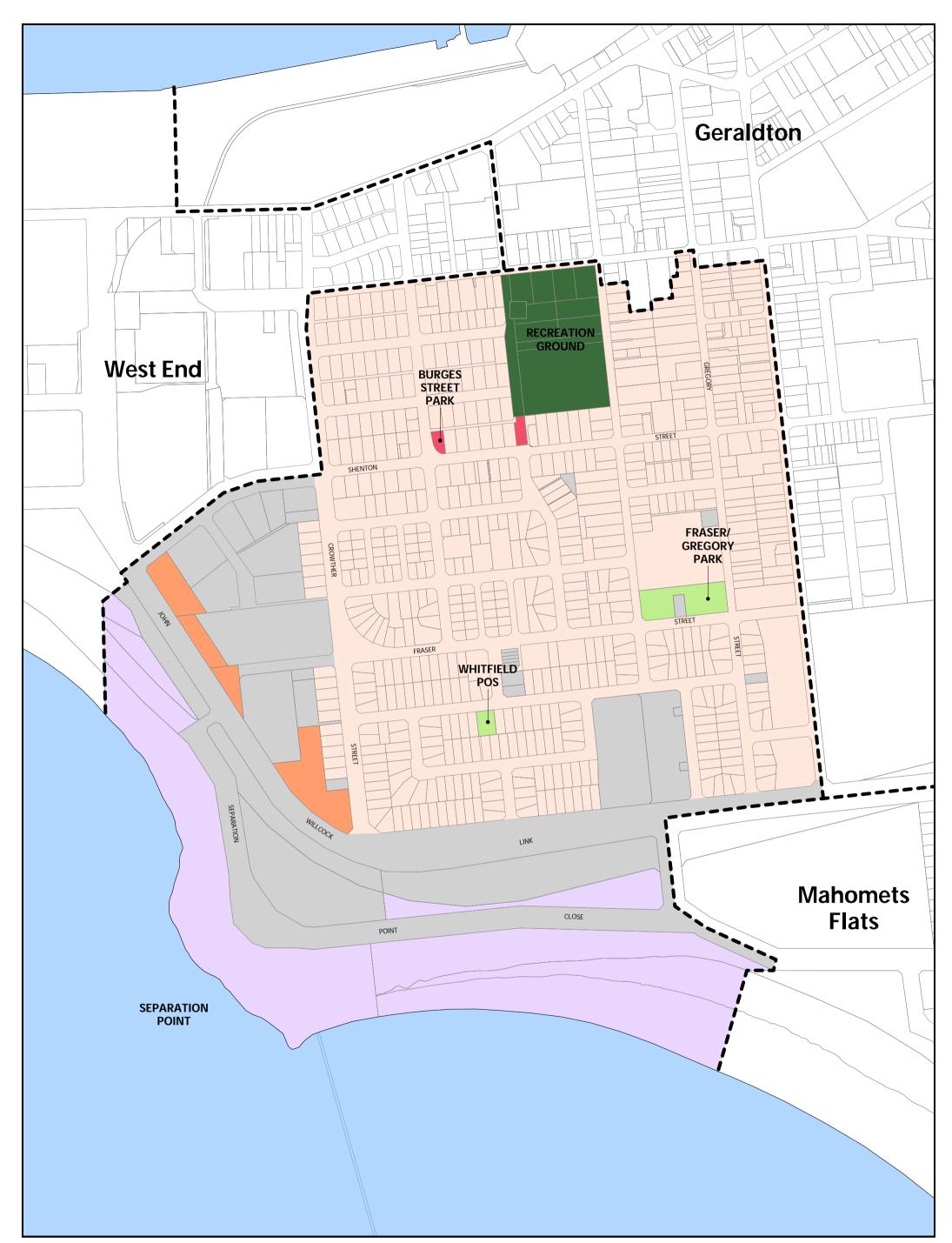


Map produced by the City of Greater Geraldton

<u>LEGEND</u>

Regional Open Space Foreshore Reserve District Open Space Local Open Space Future Open Space Deductions







<u>LEGEND</u>

Regional Open Space
Foreshore Reserve
District Open Space
Local Open Space
Future Open Space
Deductions

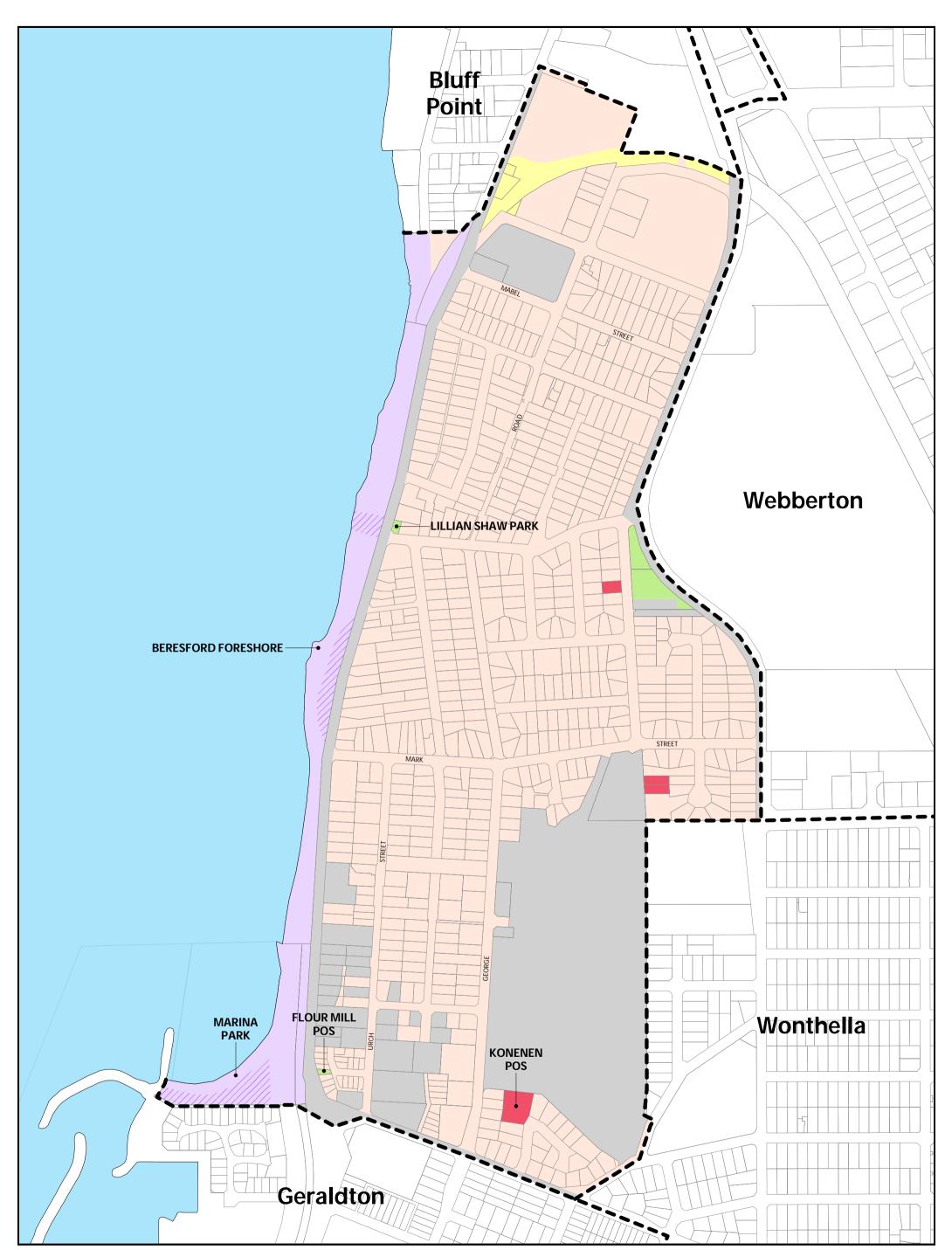
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 Neighbourhood Open Space
 Conservation
 Residual
 Gross Subdivisible Area

Public Open Space Strategy

BEACHLANDS

20-Mar-14 Revi

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<u>LEGEND</u>

Regional Open Space
Foreshore Reserve
District Open Space
Local Open Space
Future Open Space
Deductions

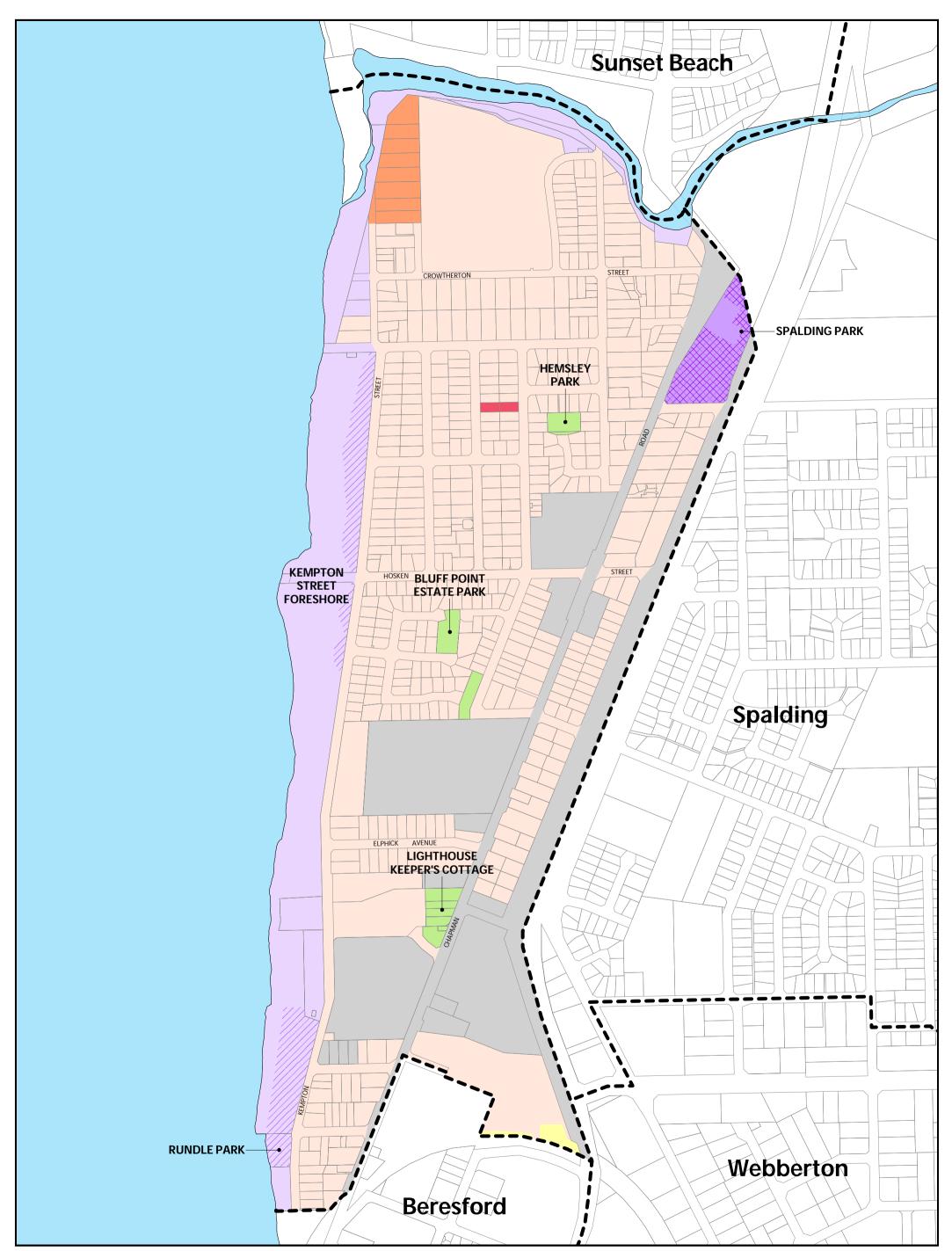
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 Activated Foreshore Reserve
 Neighbourhood Open Space
 Conservation
 Residual
 Gross Subdivisible Area

Public Open Space Strategy

BERESFORD

Date:

20-Mar-14





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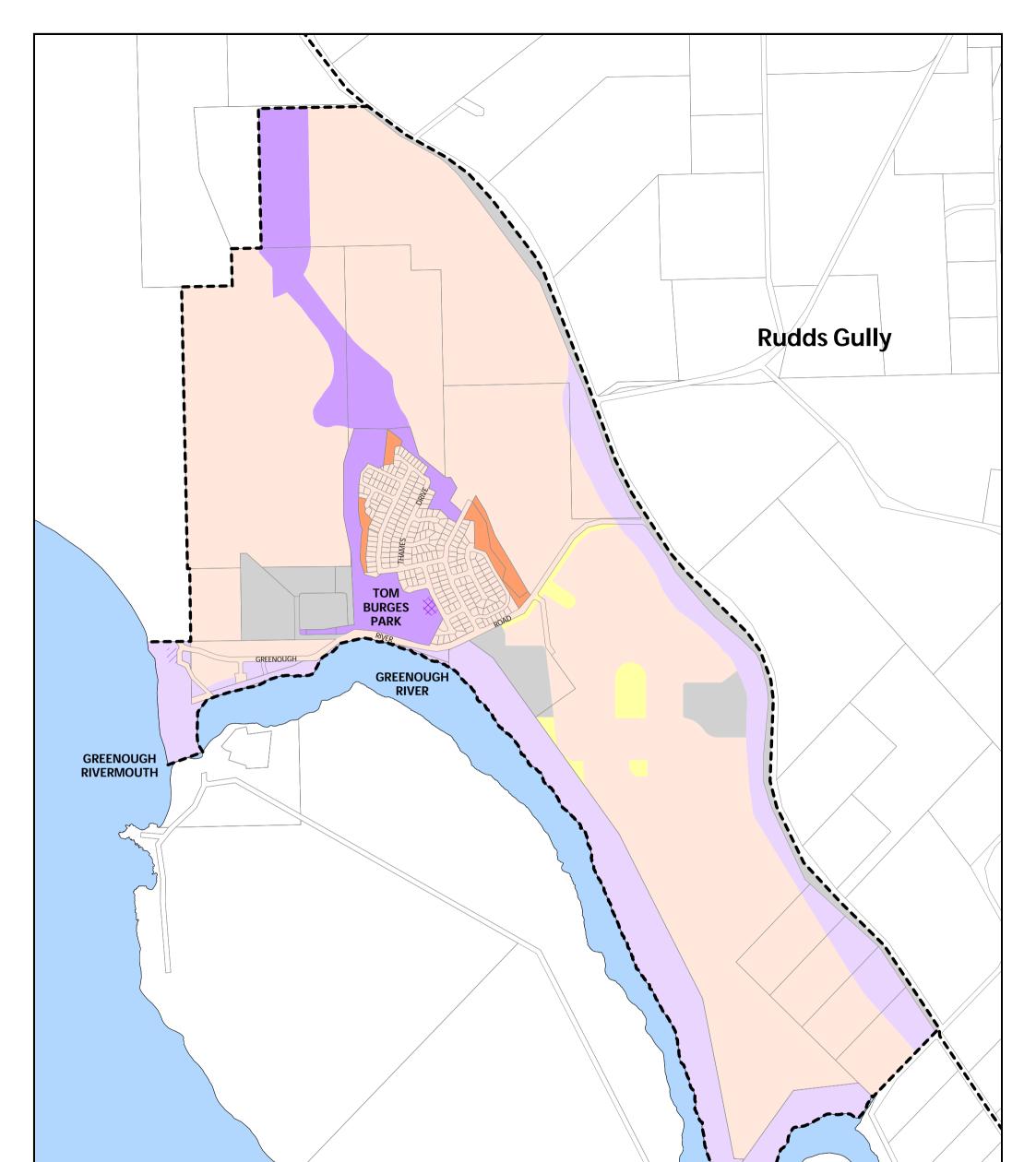
Regional Open Space
Foreshore Reserve
District Open Space
Local Open Space
Future Open Space
Deductions

Dual Function Regional Open Space
 Activated Foreshore Reserve
 Neighbourhood Open Space
 Conservation
 Residual
 Gross Subdivisible Area

Public Open Space Strategy

BLUFF POINT

Date: 20-Mar-14





<u>LEGEND</u>

Regional Open Space
Foreshore Reserve
District Open Space
Local Open Space
Future Open Space
Deductions

Dual Function Regional Open Space
 Activated Foreshore Reserve
 Neighbourhood Open Space
 Conservation
 Residual
 Gross Subdivisible Area

Public Open Space Strategy

CAPE BURNEY

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Date:

20-Mar-14





<u>LEGEND</u>

Regional Open Space
Foreshore Reserve
District Open Space
Local Open Space
Future Open Space
Deductions

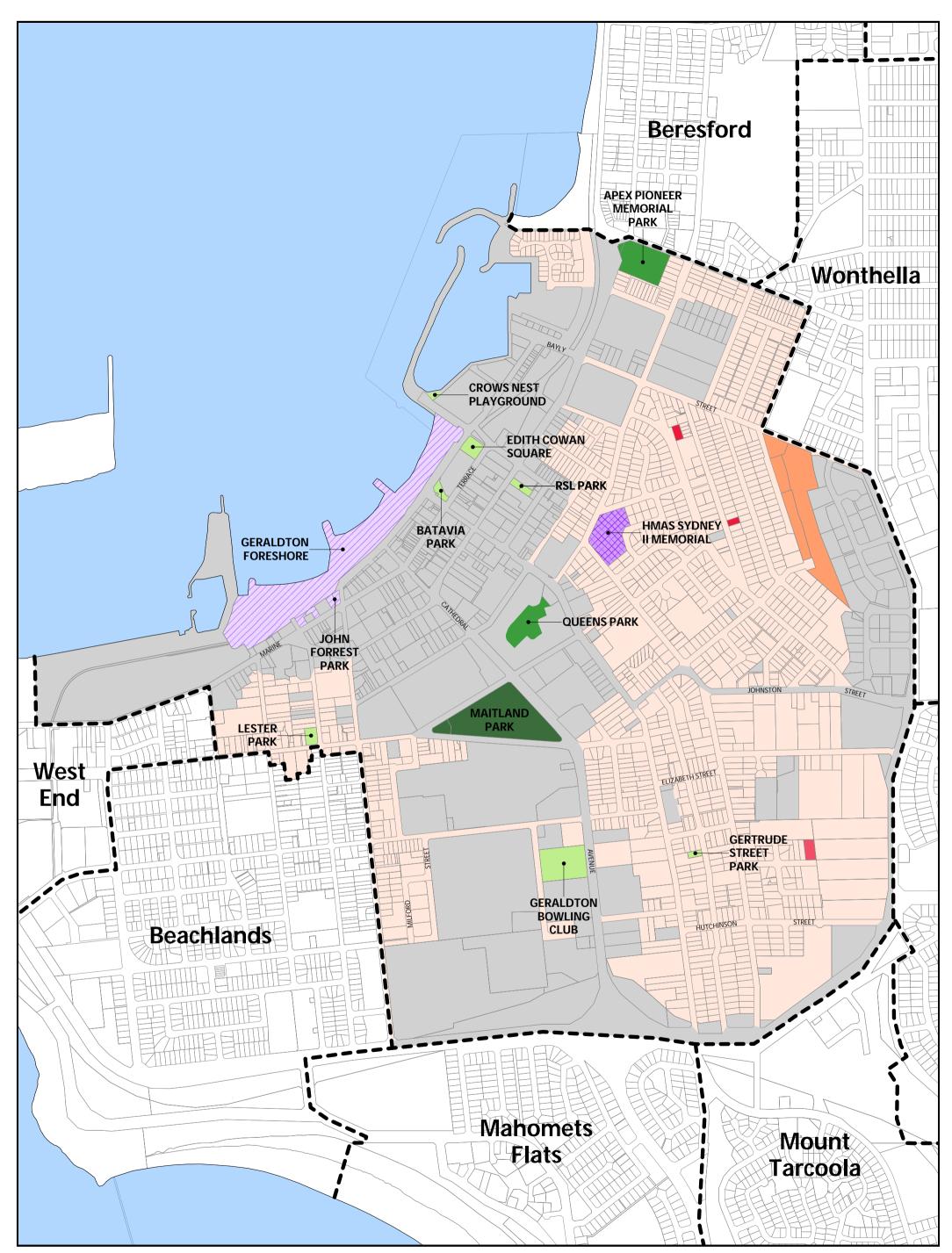
Dual Function Regional Open Space
 Activated Foreshore Reserve
 Neighbourhood Open Space
 Conservation
 Residual
 Gross Subdivisible Area

Public Open Space Strategy

Date:

01-Apr-14

DRUMMOND COVE





LEGEND

Regional Open Space
Foreshore Reserve
District Open Space
Local Open Space
Future Open Space
Deductions

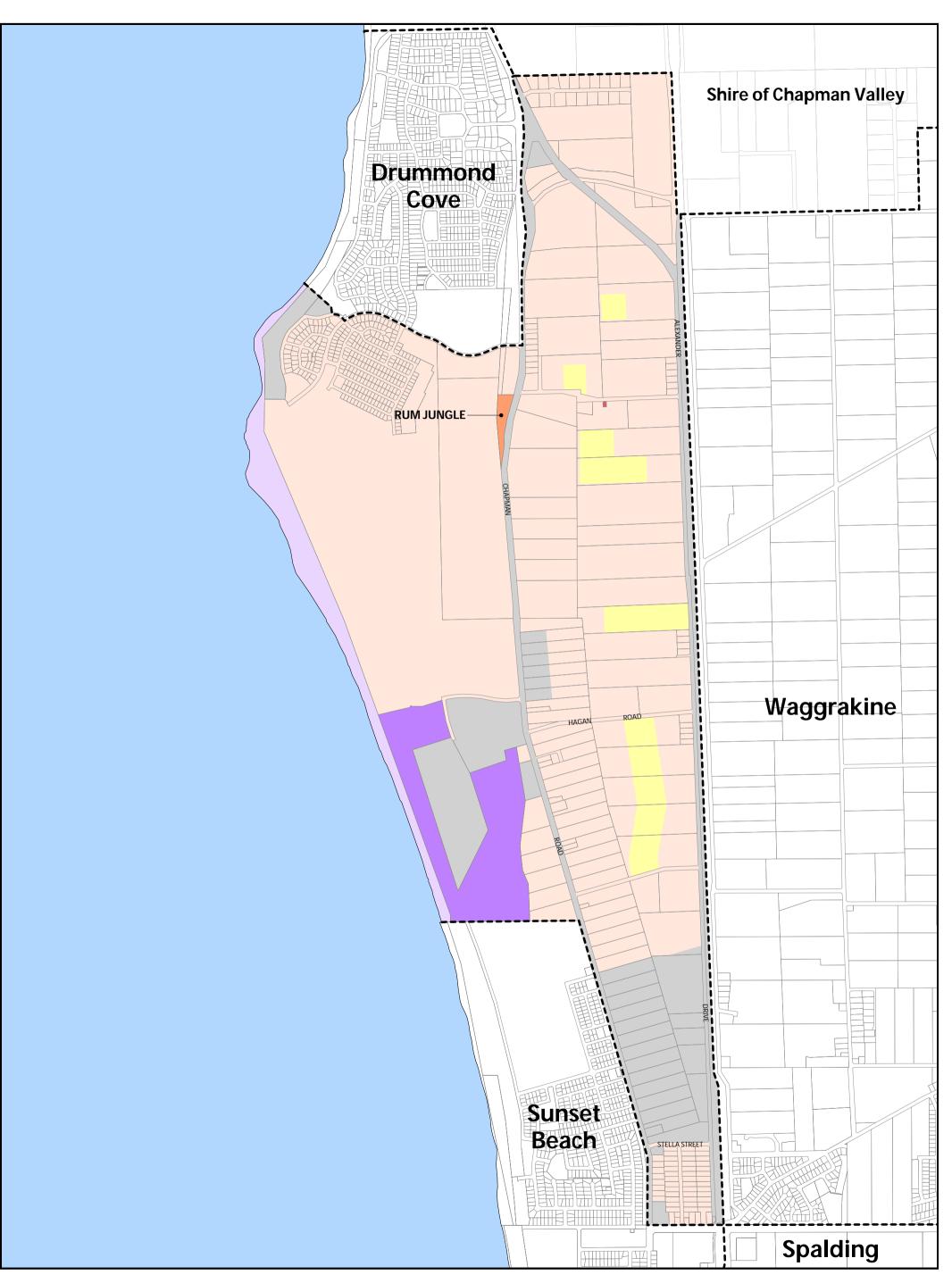
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 Activated Foreshore Reserve
 Neighbourhood Open Space
 Conservation
 Residual
 Gross Subdivisible Area

Public Open Space Strategy

GERALDTON

Date:

01-Apr-14





<u>LEGEND</u>

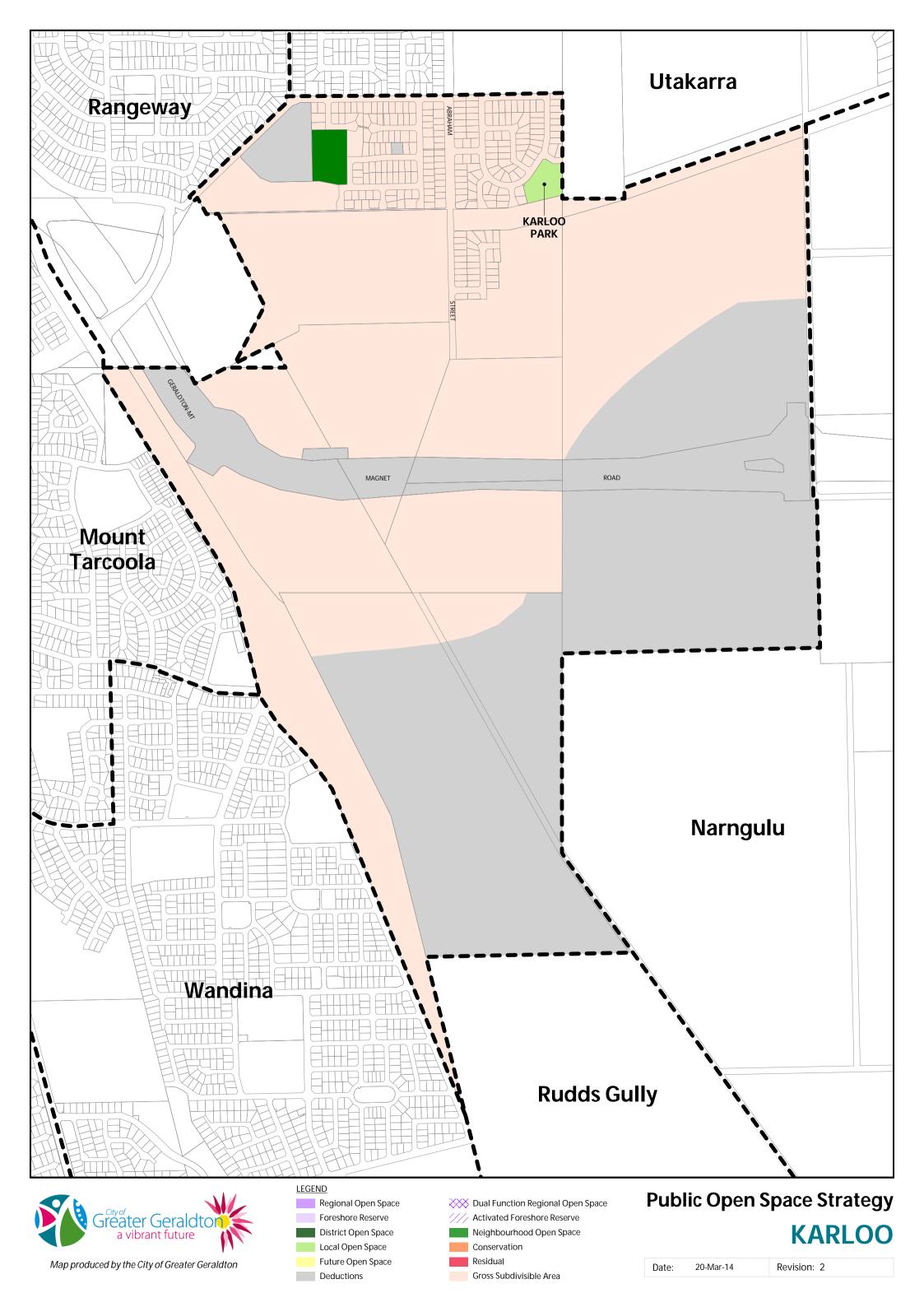
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Deductions

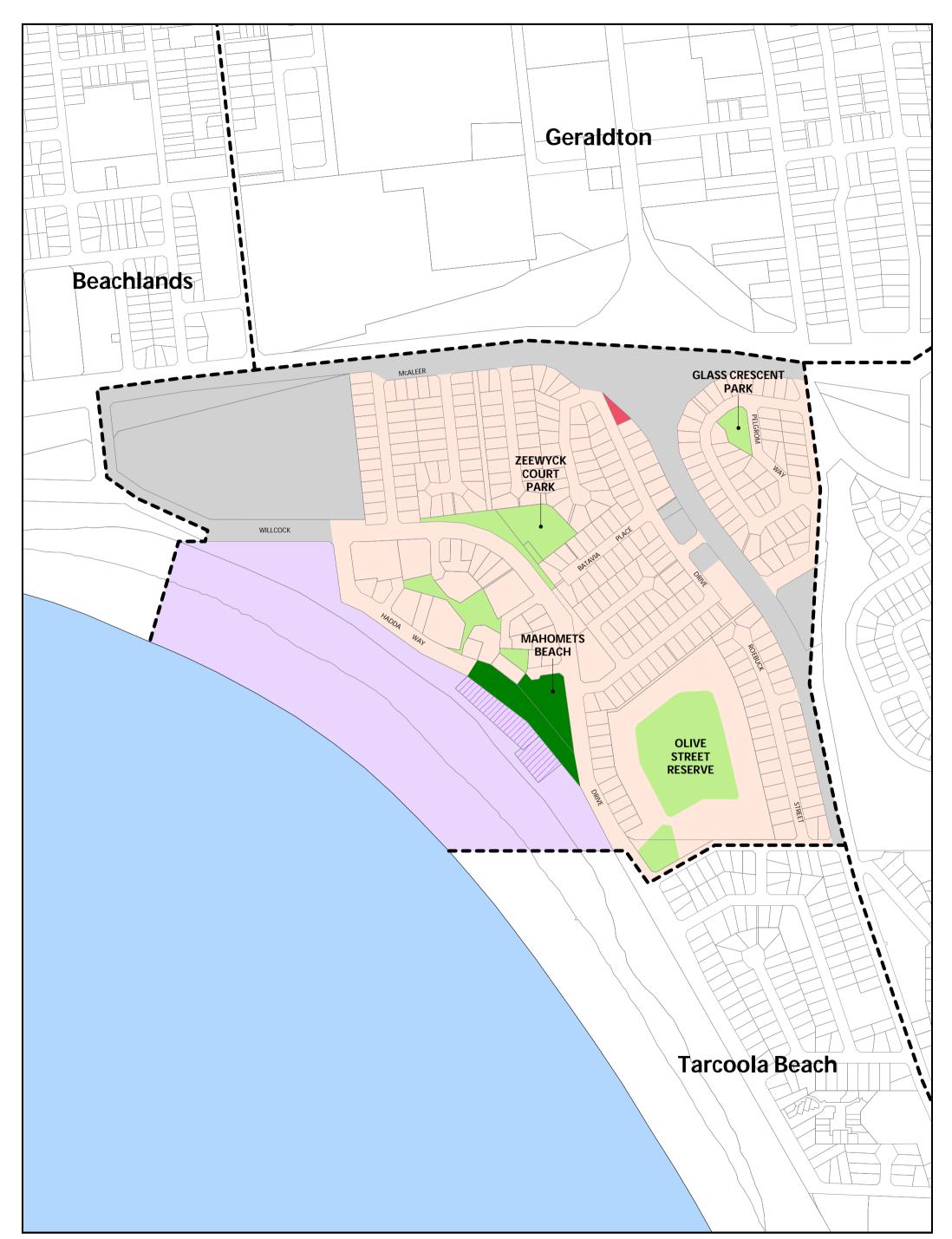
Dual Function Regional Open Space
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 Neighbourhood Open Space
 Conservation
 Residual
 Gross Subdivisible Area

Public Open Space Strategy

GLENFIELD

Date: 20-Mar-14







<u>LEGEND</u>

Regional Open Space
Foreshore Reserve
District Open Space
Local Open Space
Future Open Space
Deductions

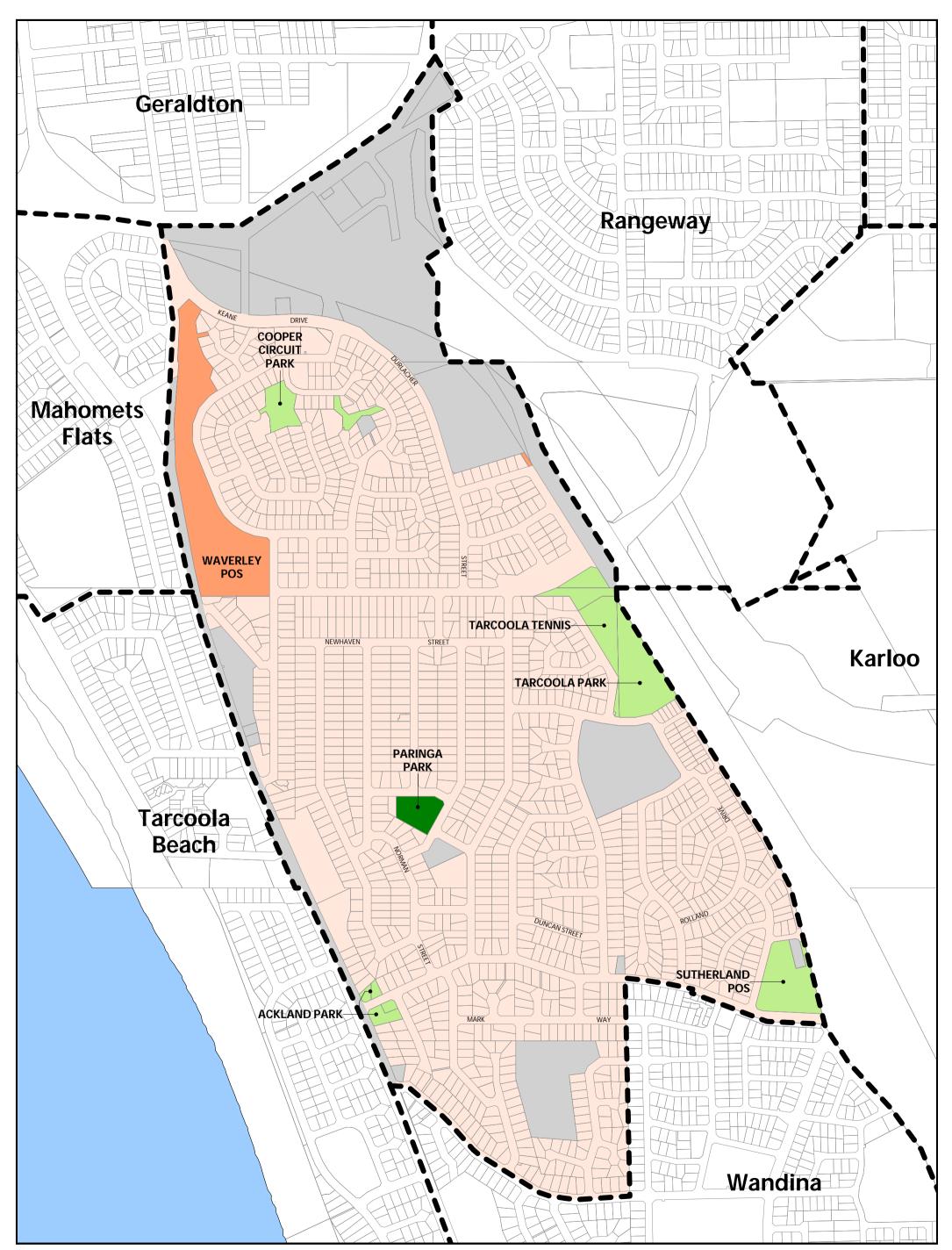
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 Gross Subdivisible Area

Public Open Space Strategy

20-Mar-14

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MAHOMETS FLATS





<u>LEGEND</u>

Regional Open Space
Foreshore Reserve
District Open Space
Local Open Space
Future Open Space
Deductions

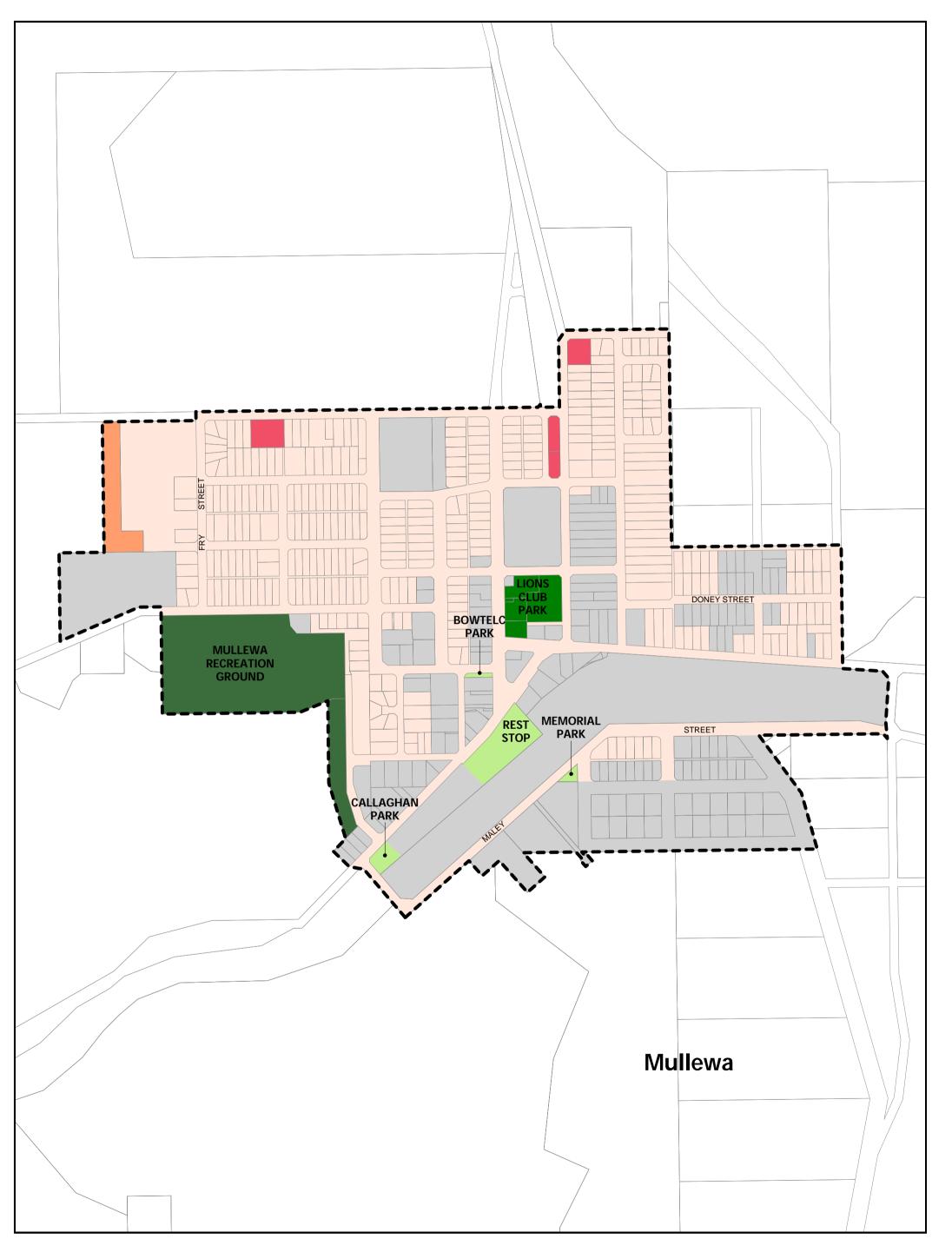
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Public Open Space Strategy

MOUNT TARCOOLA

Date:

20-Mar-14





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Regional Open Space
Foreshore Reserve
District Open Space
Local Open Space
Future Open Space
Deductions

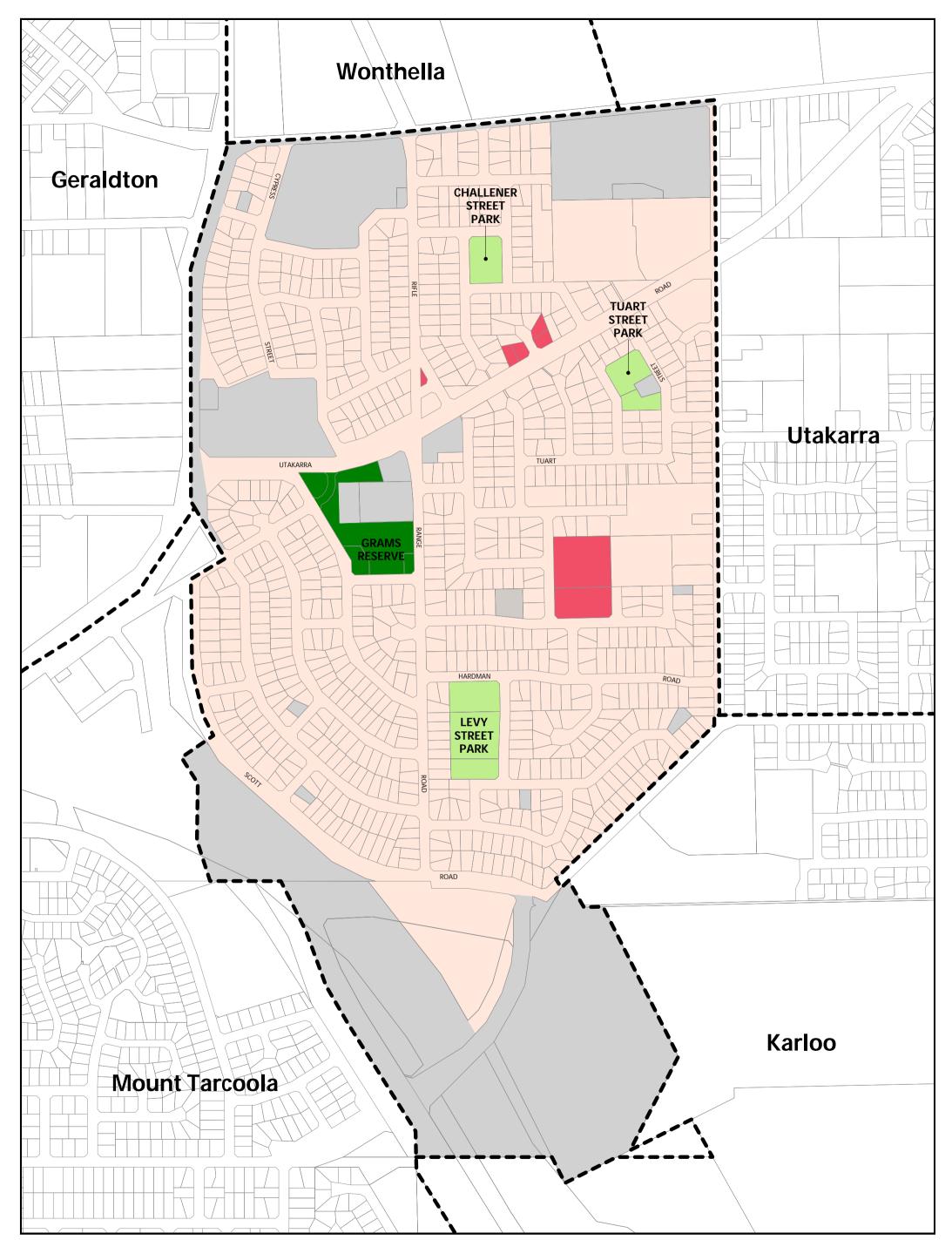
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 Neighbourhood Open Space
 Conservation
 Residual
 Gross Subdivisible Area

Public Open Space Strategy

MULLEWA

20-Mar-14 Revision: 2

Date:





<u>LEGEND</u>

Regional Open Space
Foreshore Reserve
District Open Space
Local Open Space
Future Open Space
Deductions

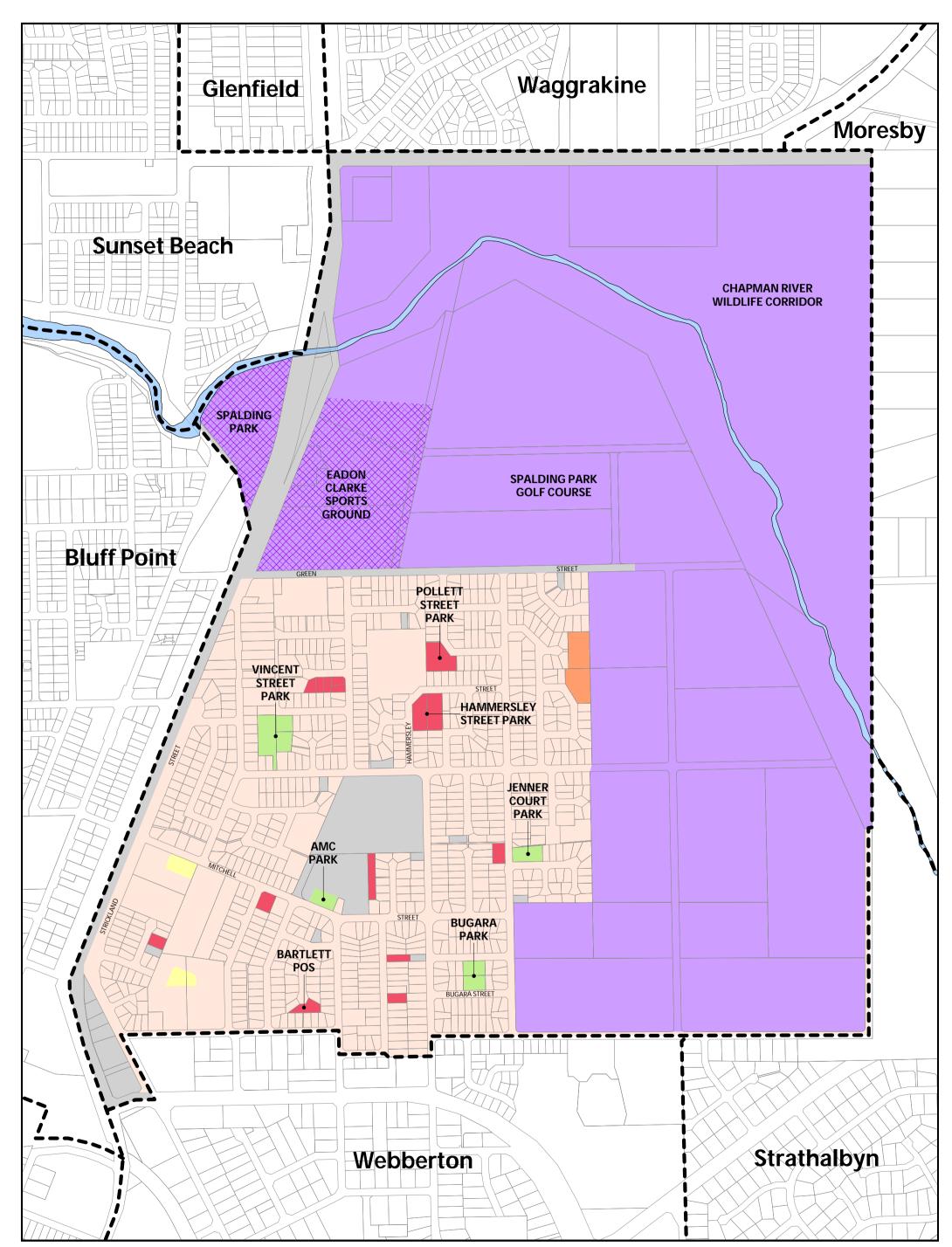
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 Neighbourhood Open Space
 Conservation
 Residual
 Gross Subdivisible Area

Public Open Space Strategy

20-Mar-14

Date:

RANGEWAY





<u>LEGEND</u>

Regional Open Space
Foreshore Reserve
District Open Space
Local Open Space
Future Open Space
Deductions

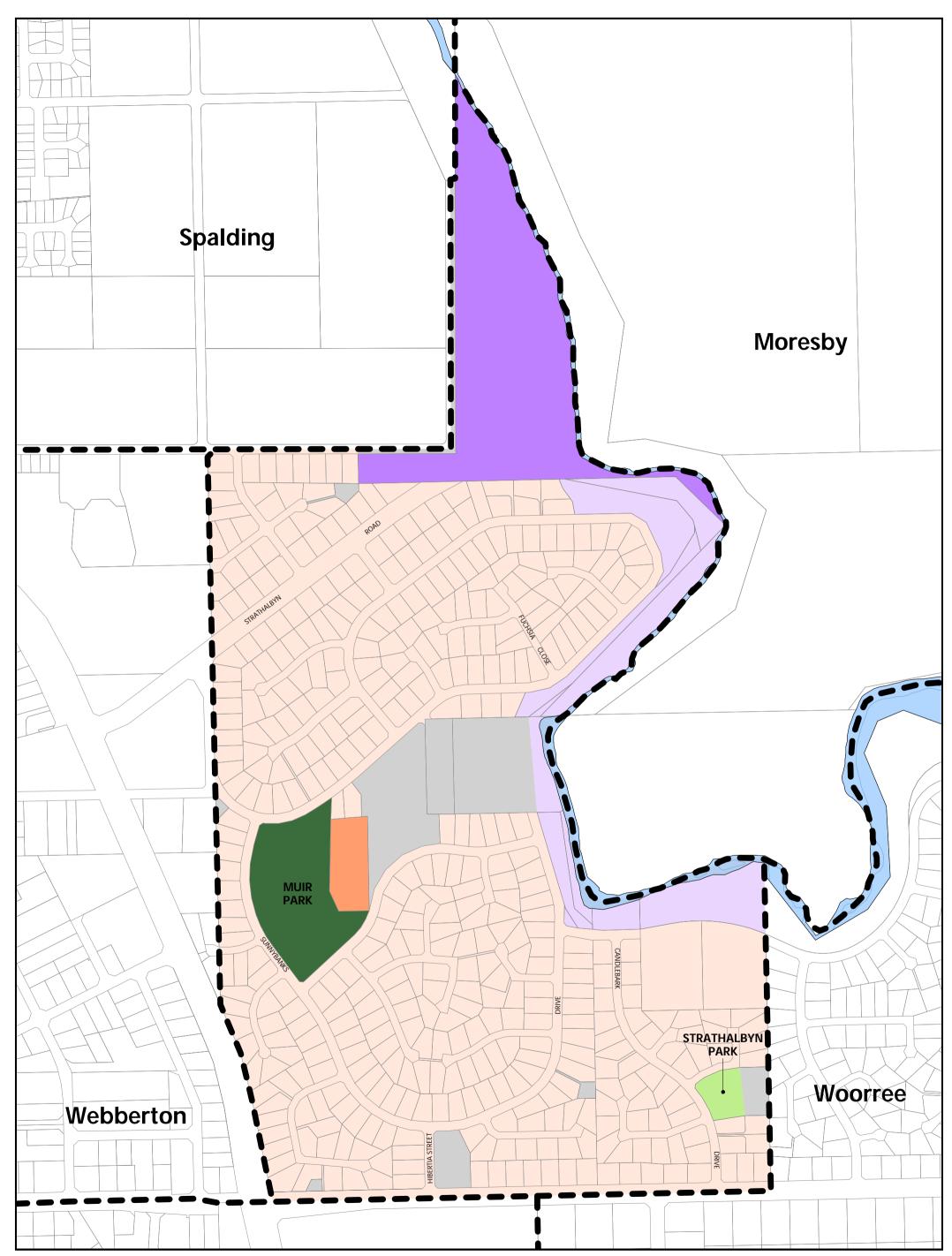
Dual Function Regional Open Space
 Activated Foreshore Reserve
 Neighbourhood Open Space
 Conservation
 Residual
 Gross Subdivisible Area

Public Open Space Strategy

SPALDING

Date:

20-Mar-14





<u>LEGEND</u>

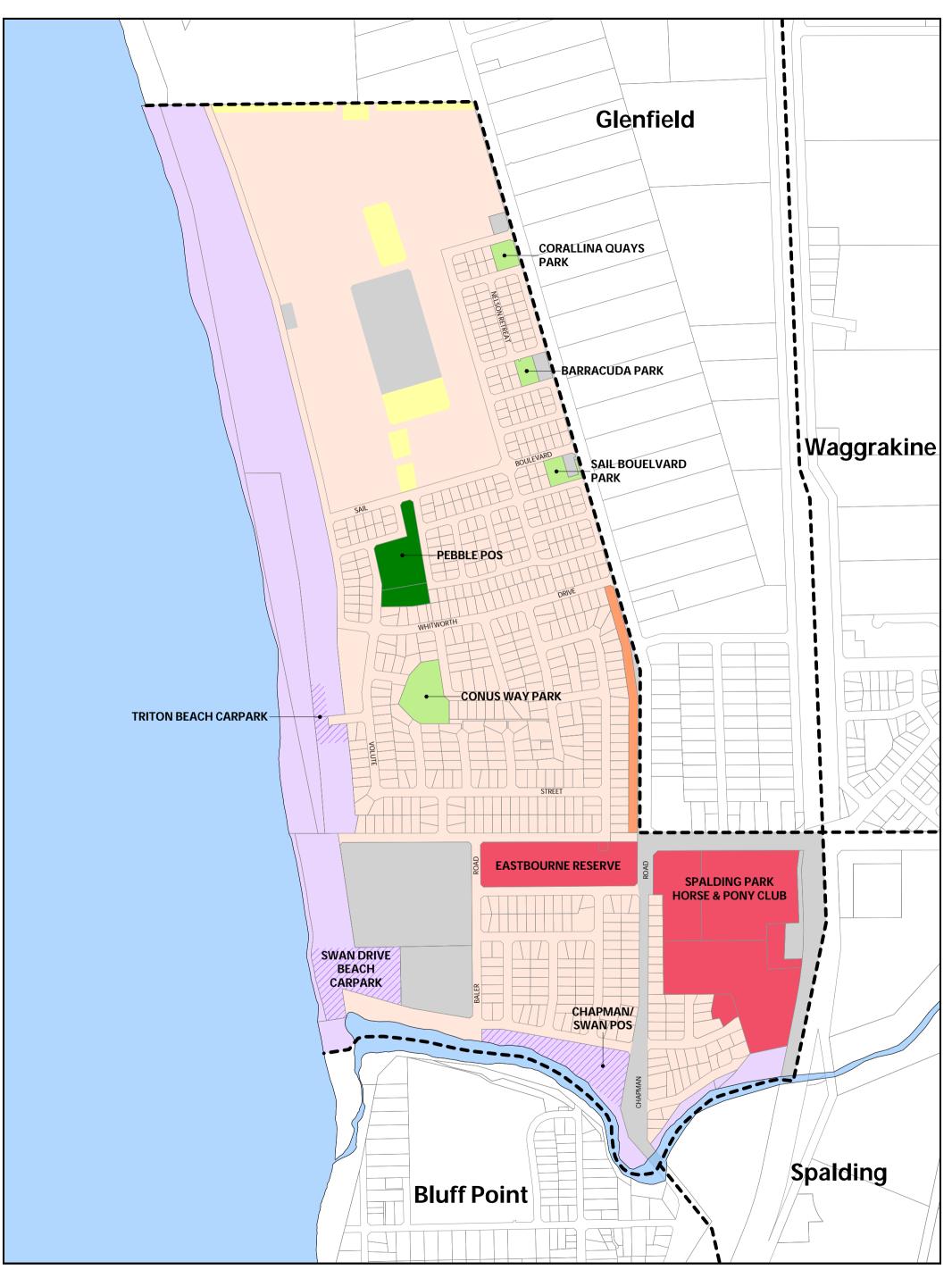
Regional Open Space
Foreshore Reserve
District Open Space
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Future Open Space
Deductions

Dual Function Regional Open Space
 Activated Foreshore Reserve
 Neighbourhood Open Space
 Conservation
 Residual
 Gross Subdivisible Area

Public Open Space Strategy

STRATHALBYN

Date: 20-Mar-14





<u>LEGEND</u>

Regional Open Space
Foreshore Reserve
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Local Open Space
Future Open Space
Deductions

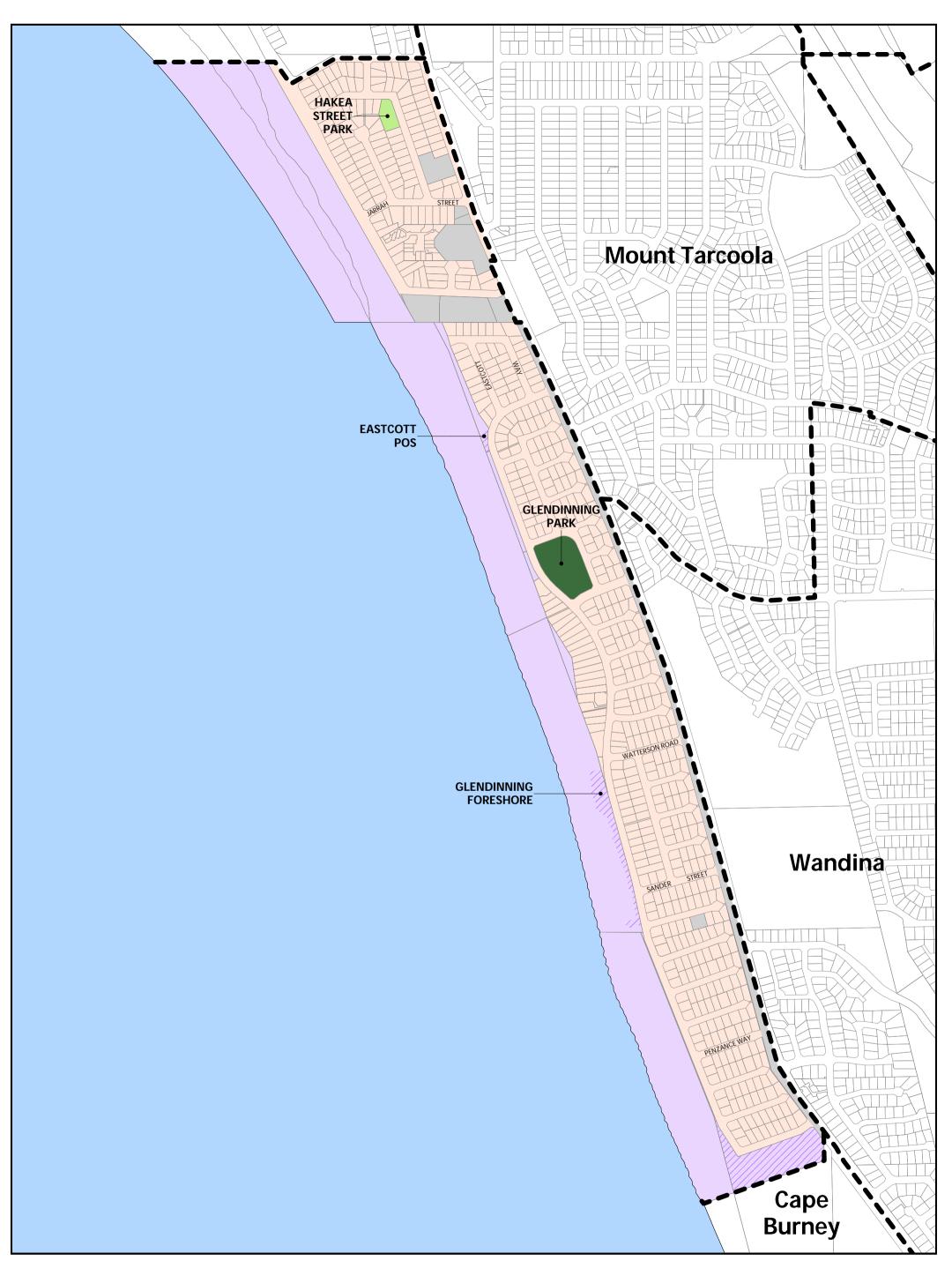
Dual Function Regional Open Space
 Activated Foreshore Reserve
 Neighbourhood Open Space
 Conservation
 Residual
 Gross Subdivisible Area

Public Open Space Strategy

Date:

20-Mar-14

SUNSET BEACH





<u>LEGEND</u>

Regional Open Space
Foreshore Reserve
District Open Space
Local Open Space
Future Open Space
Deductions

Dual Function Regional Open Space
 Activated Foreshore Reserve
 Neighbourhood Open Space
 Conservation
 Residual
 Gross Subdivisible Area

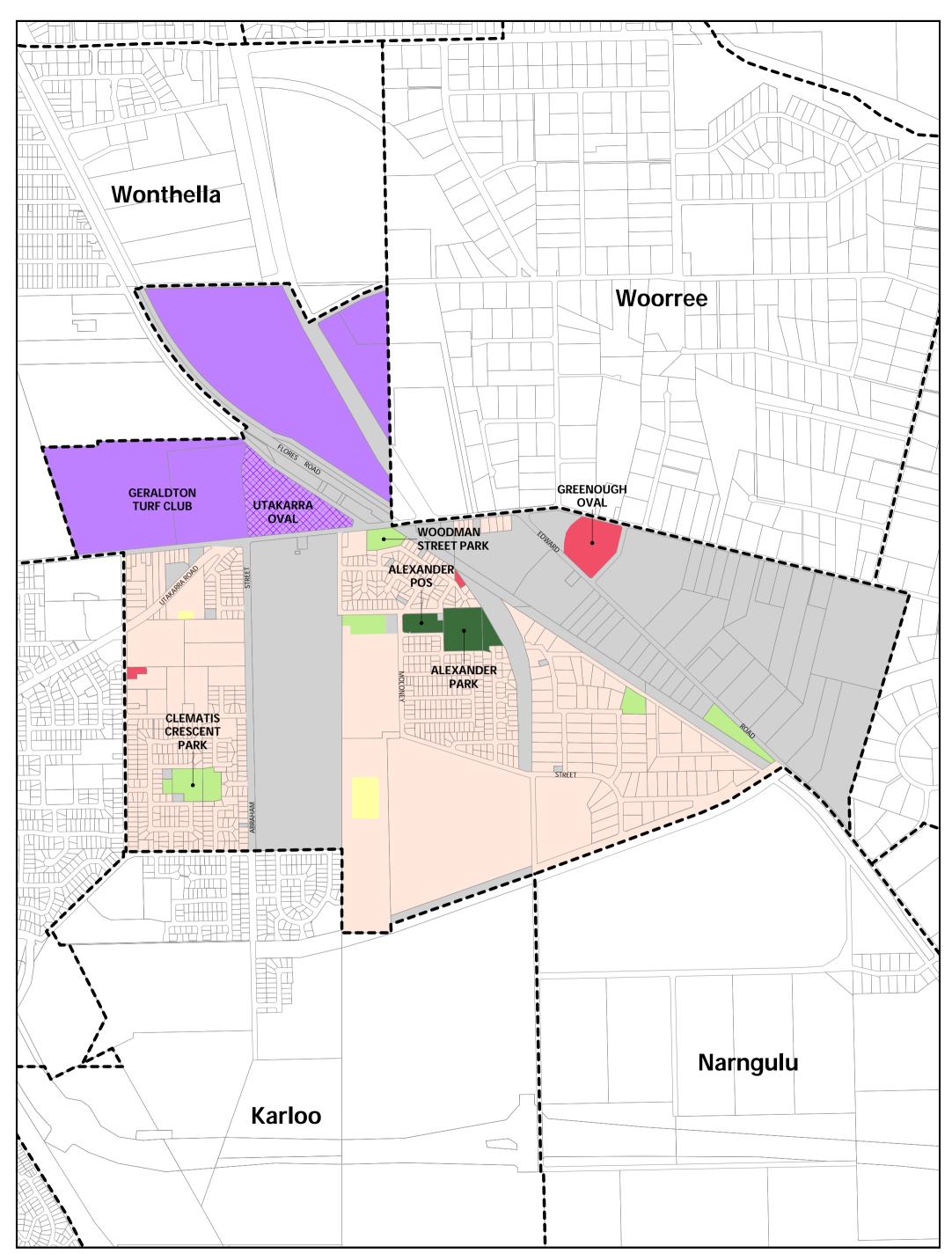
Public Open Space Strategy

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Date:

20-Mar-14





<u>LEGEND</u>

Regional Open Space
Foreshore Reserve
District Open Space
Local Open Space
Future Open Space
Deductions

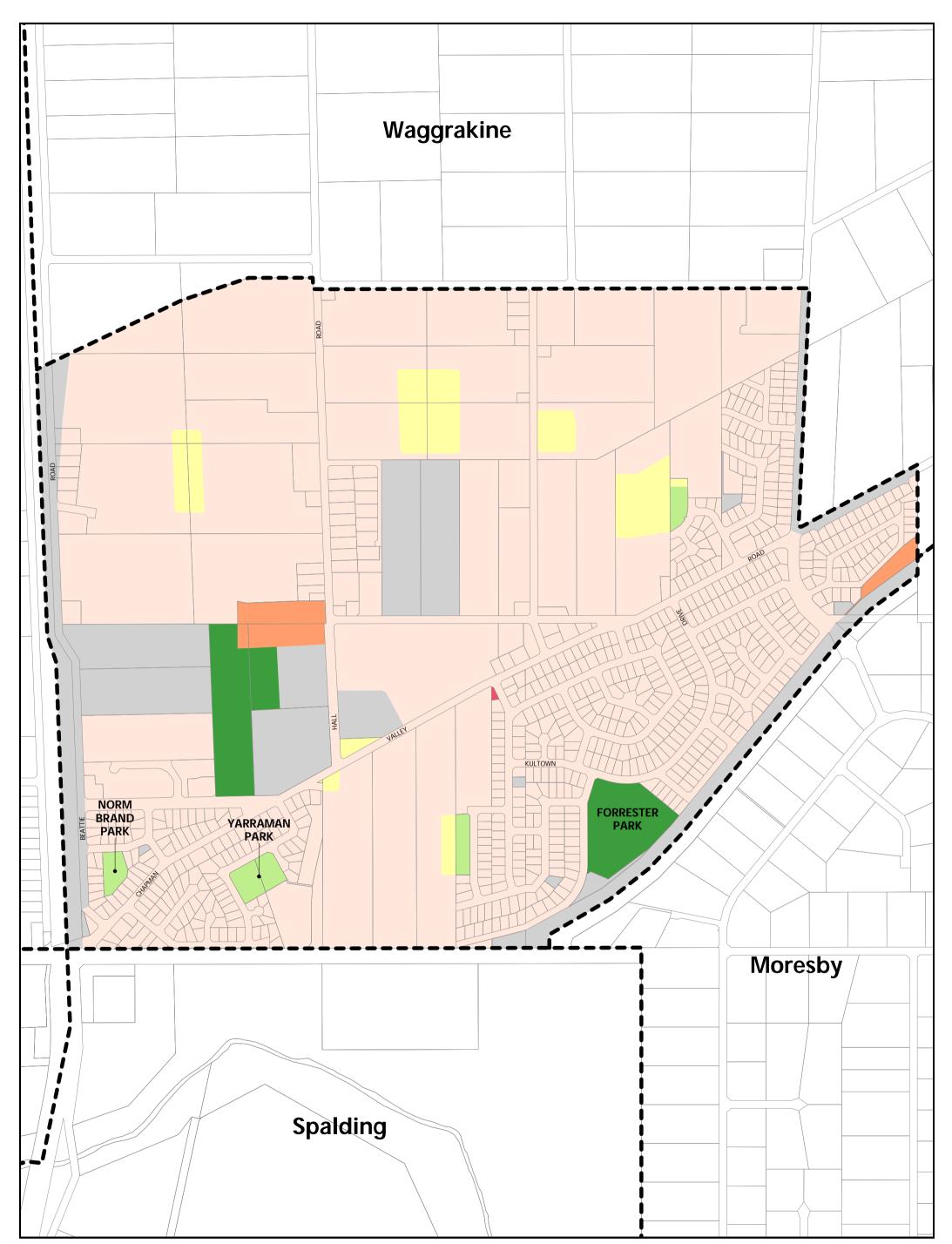
Dual Function Regional Open Space
 Activated Foreshore Reserve
 Neighbourhood Open Space
 Conservation
 Residual
 Gross Subdivisible Area

Public Open Space Strategy

UTAKARRA

Date:

01-Apr-14





<u>LEGEND</u>

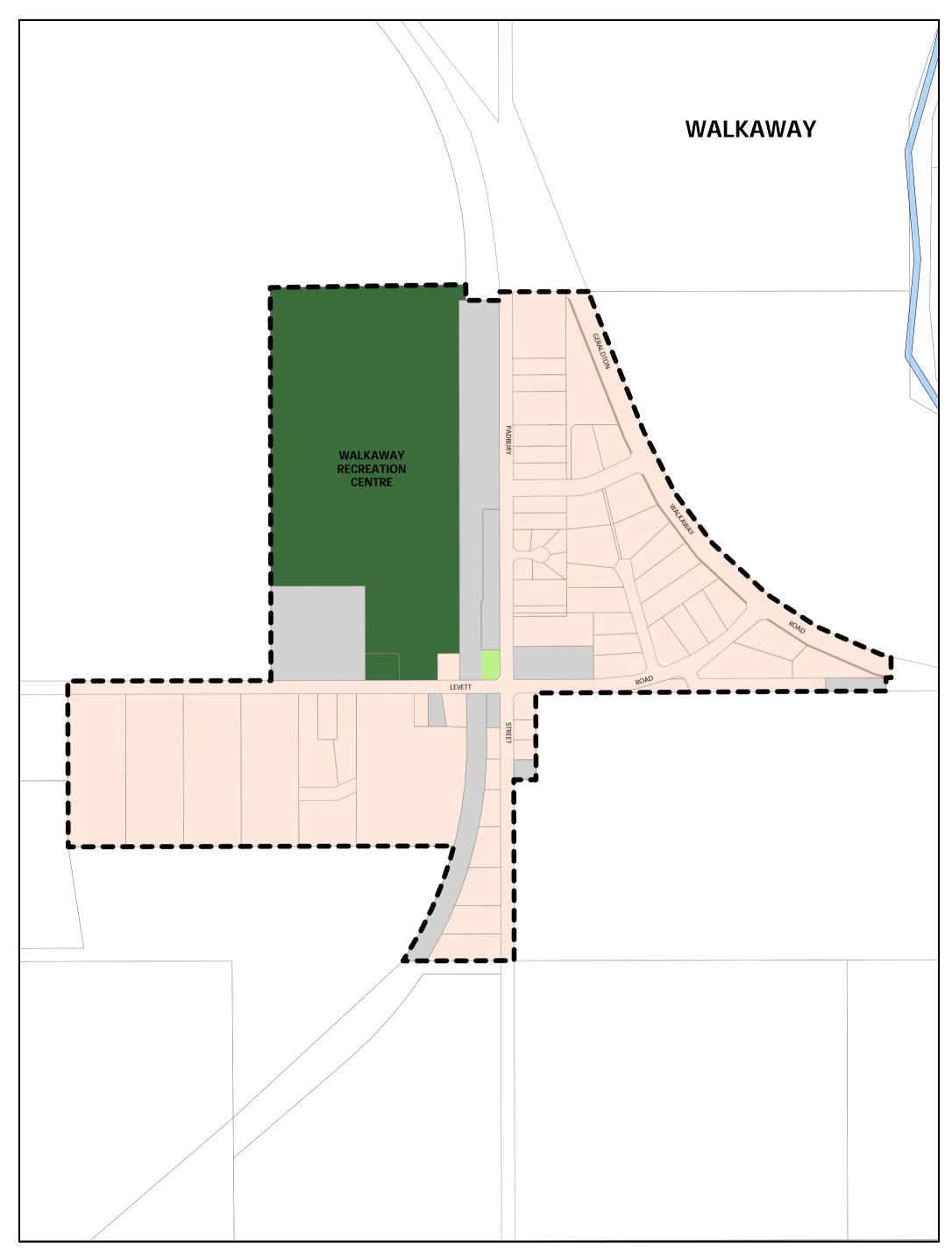
Regional Open Space
Foreshore Reserve
District Open Space
Local Open Space
Future Open Space
Deductions

Dual Function Regional Open Space
 Activated Foreshore Reserve
 Neighbourhood Open Space
 Conservation
 Residual
 Gross Subdivisible Area

Public Open Space Strategy

WAGGRAKINE

Date: 01-Apr-14





LEGEND

Regional Open Space
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Local Open Space
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Deductions

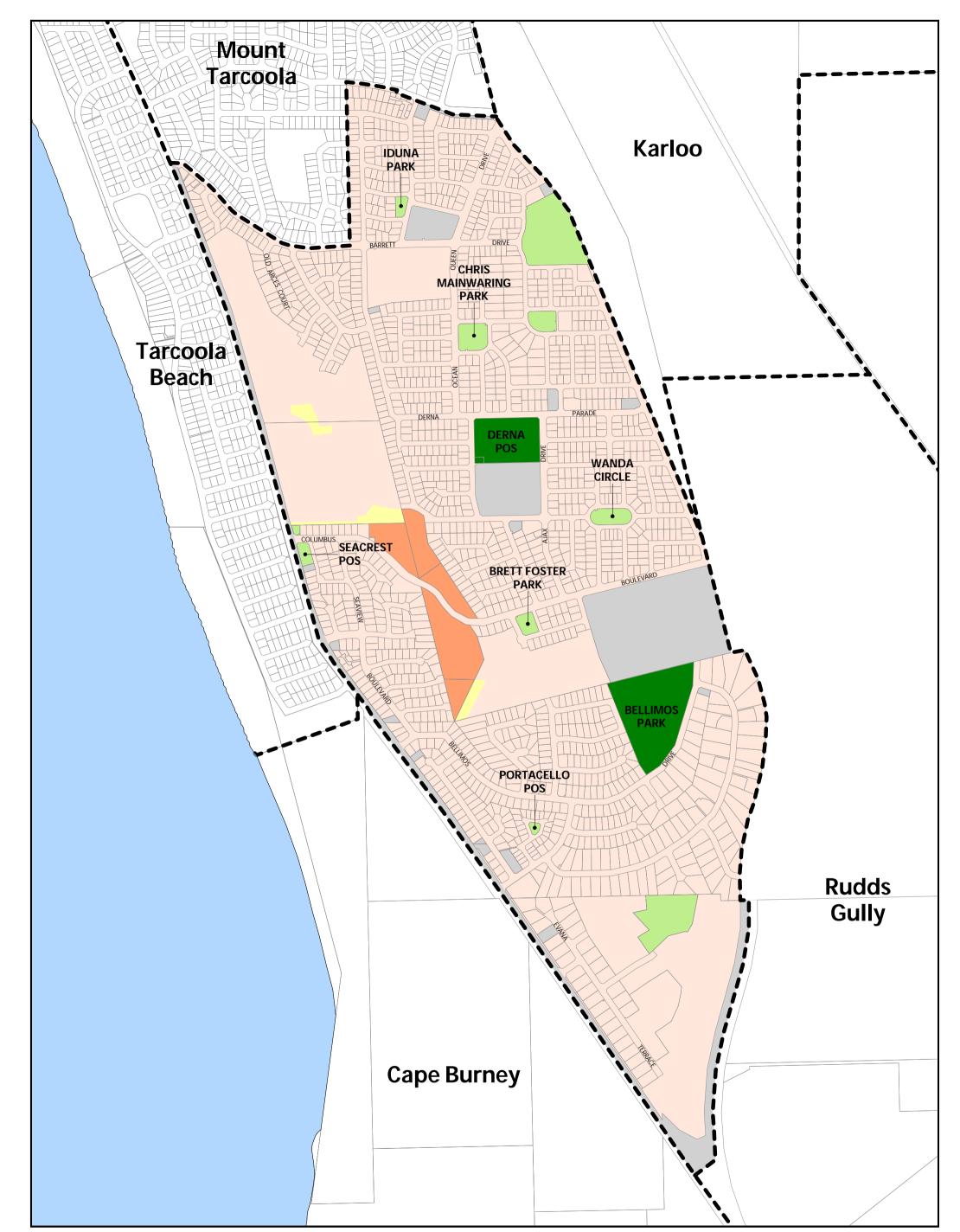
Dual Function Regional Open Space
 Activated Foreshore Reserve
 Neighbourhood Open Space
 Conservation
 Residual
 Gross Subdivisible Area

Public Open Space Strategy

Date:

WALKAWAY

20-Mar-14 Revision: 2





<u>LEGEND</u>

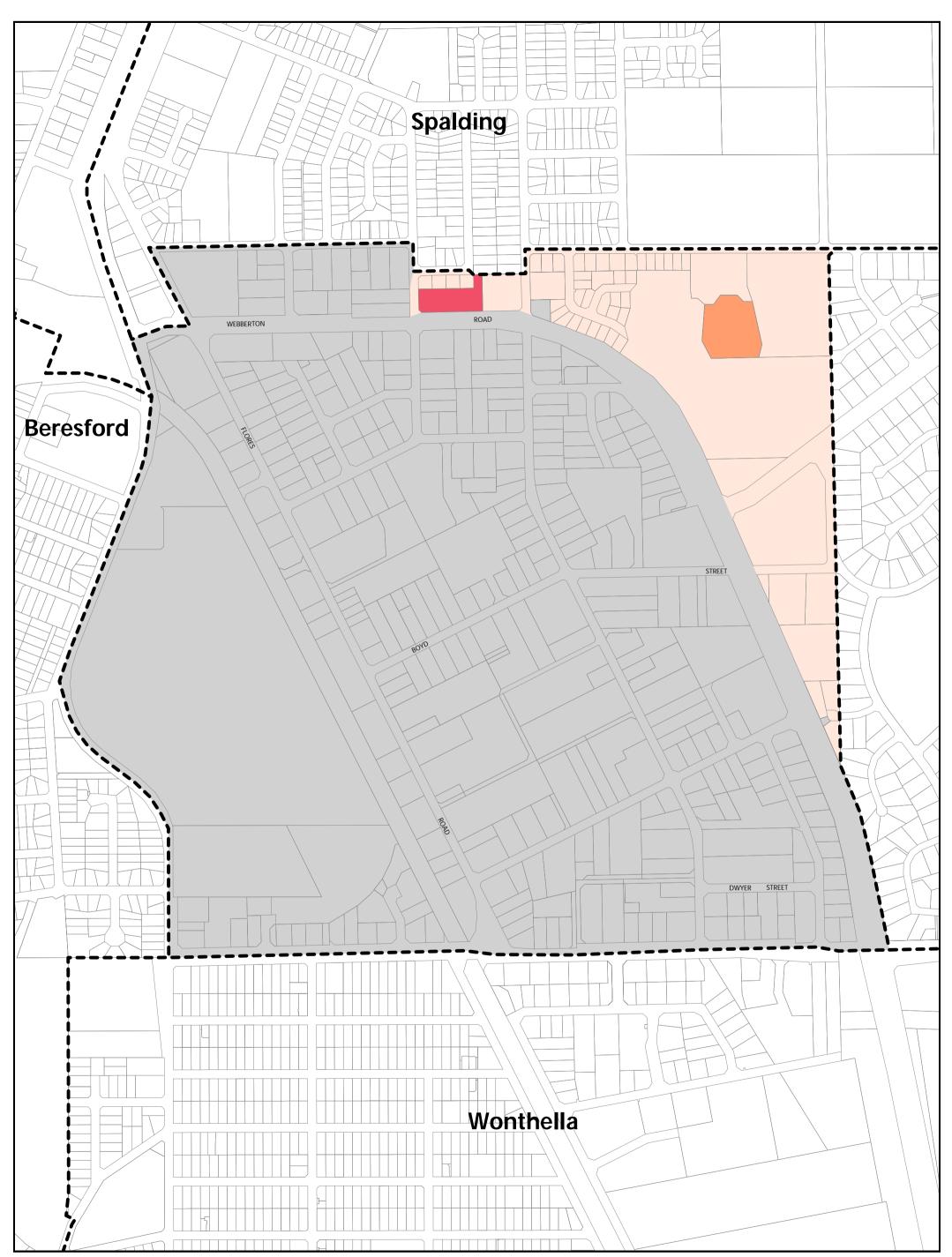
Regional Open Space Foreshore Reserve District Open Space Local Open Space Future Open Space Deductions

Dual Function Regional Open Space Activated Foreshore Reserve Neighbourhood Open Space Conservation Residual Gross Subdivisible Area

Public Open Space Strategy

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Date: 20-Mar-14





<u>LEGEND</u>

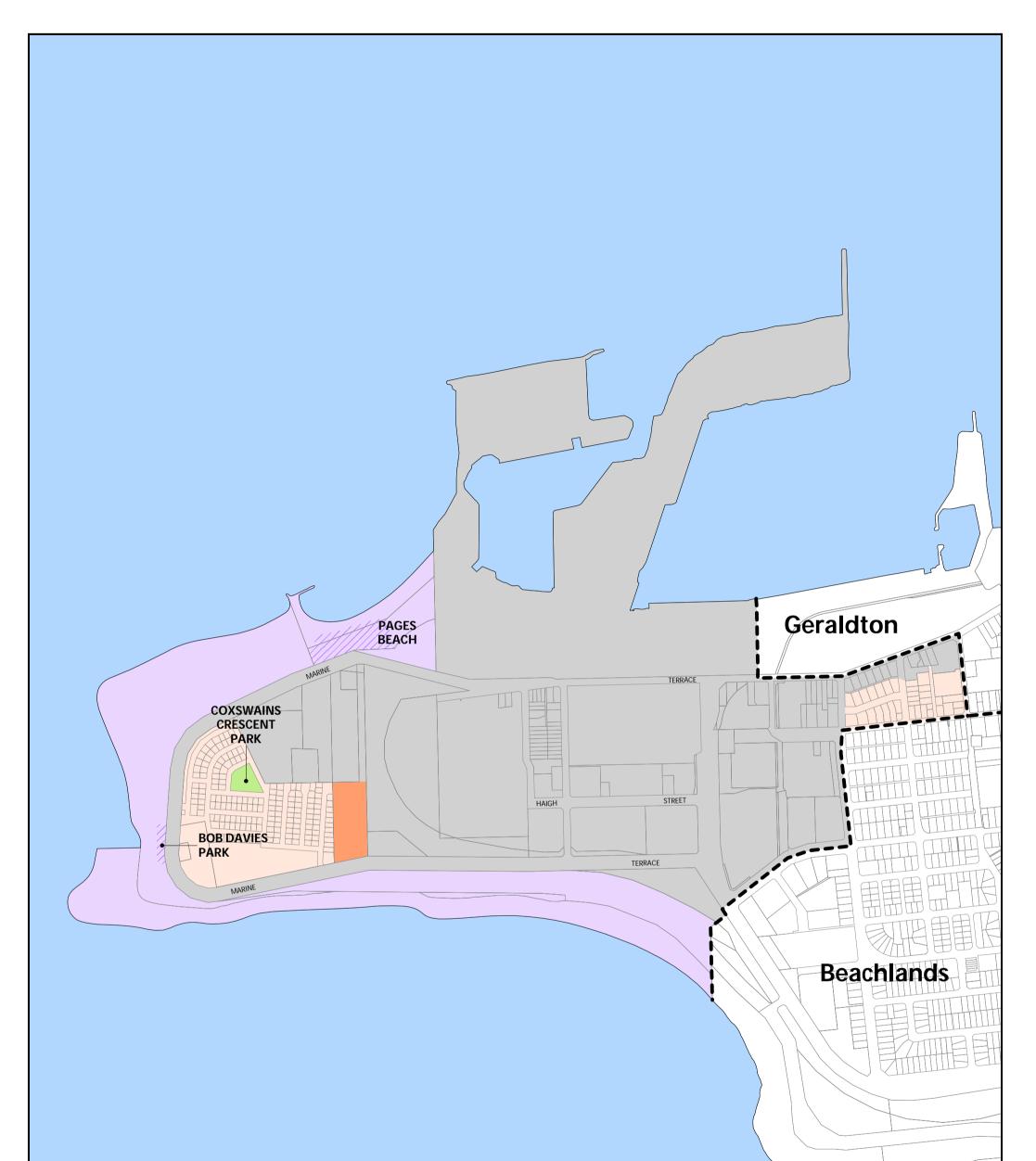
Regional Open Space Foreshore Reserve District Open Space Local Open Space Future Open Space Deductions

Dual Function Regional Open Space Activated Foreshore Reserve Neighbourhood Open Space Conservation Residual Gross Subdivisible Area

Public Open Space Strategy

WEBBERTON

Date: 20-Mar-14





<u>LEGEND</u>

Regional Open Space
Foreshore Reserve
District Open Space
Local Open Space
Future Open Space
Deductions

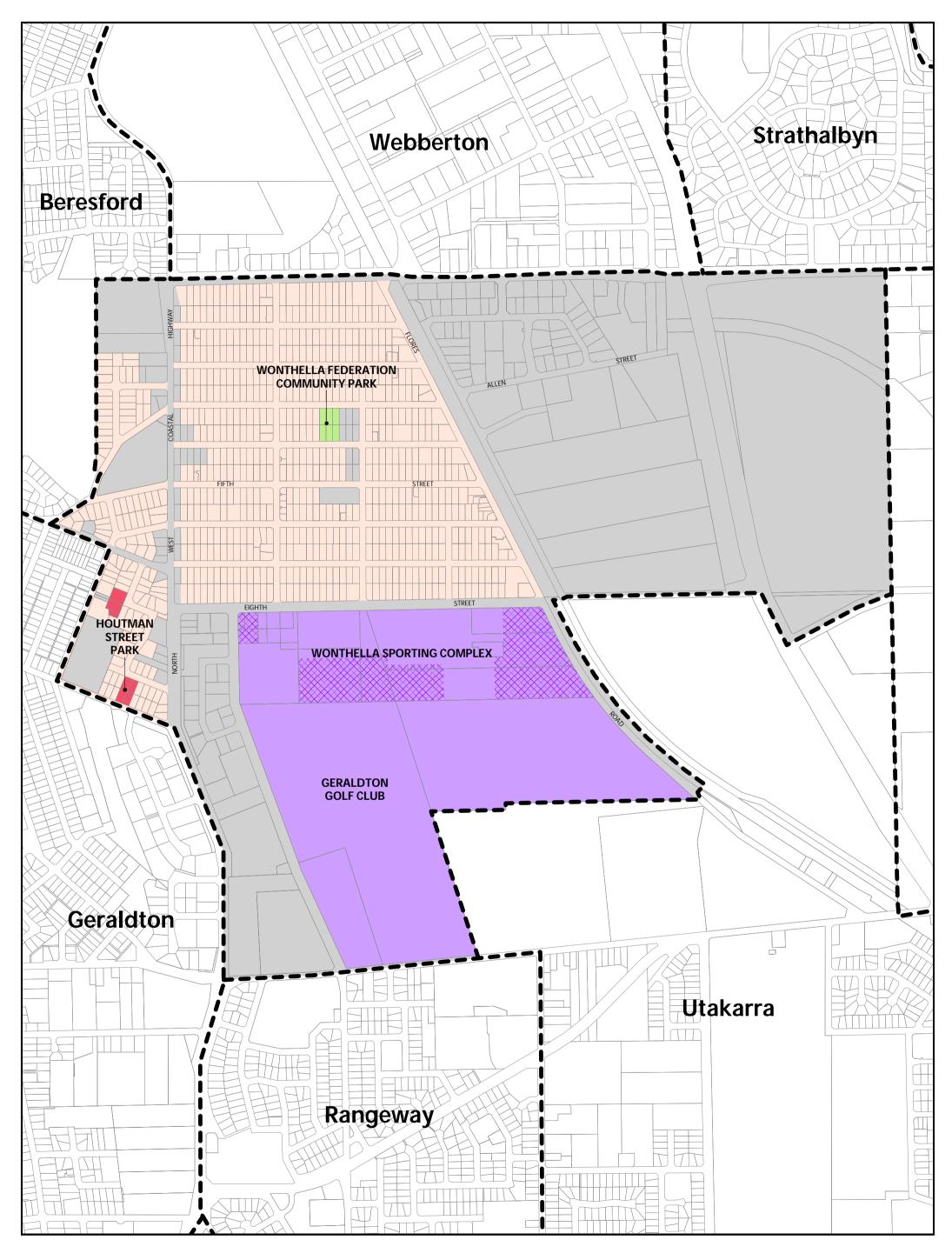
Dual Function Regional Open Space
 Activated Foreshore Reserve
 Neighbourhood Open Space
 Conservation
 Residual
 Gross Subdivisible Area

Public Open Space Strategy

WEST END

20-Mar-14 Revision: 2

Date:





<u>LEGEND</u>

Regional Open Space
Foreshore Reserve
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Local Open Space
Future Open Space
Deductions

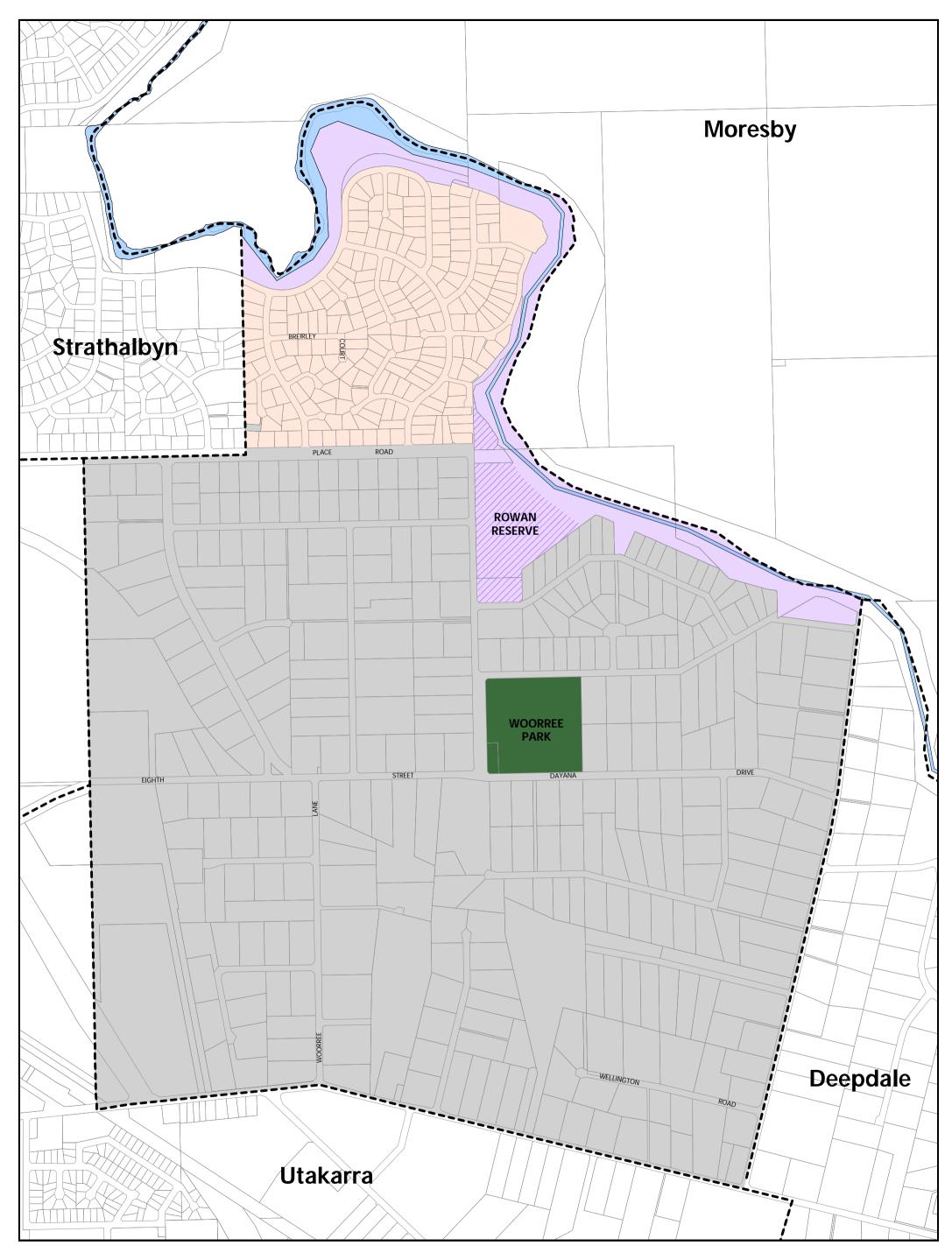
Dual Function Regional Open Space
 Activated Foreshore Reserve
 Neighbourhood Open Space
 Conservation
 Residual
 Gross Subdivisible Area

Public Open Space Strategy

WONTHELLA

20-Mar-14

Date:





LEGEND

Regional Open Space
Foreshore Reserve
District Open Space
Local Open Space
Future Open Space
Deductions

Dual Function Regional Open Space
 Activated Foreshore Reserve
 Neighbourhood Open Space
 Conservation
 Residual
 Gross Subdivisible Area

Public Open Space Strategy

WOORREE

Date: 20-Mar-14