

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 – April 2013



GOVERNMENT OF
WESTERN AUSTRALIA



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The City of Greater Geraldton acknowledges the work undertaken by Greg-Rowe & Associates in the preparation of this Strategy.



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
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Date: _____

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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 value that public open space provides to the community is a combination of social, economic and environmental factors. A principal role of public open space is to support health, recreation and leisure functions including active pursuits, yet also encompassing passive uses. Environmental protection is also an essential role of public open space, through habitat and biodiversity conservation and air and water quality management. It also provides a strong connection to nature for people living in highly urbanised environments. Public open space is also highly valued for its natural beauty, contribution to neighbourhood character and community identity, cultural heritage value, tourism potential and the emotional connection people may attach to it.

The City of Greater Geraldton 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. To address these issues, the City commenced a study to better understand the provision, usage and development needs of public open space.

The Public Open Space Strategy is set within the context of the Western Australian Planning Commission's "Liveable Neighbourhoods" operational policy. The Strategy adopts a 5 tiered hierarchy system of open space and seeks a number of regional variations with regard to defining public open space, 'activated' regional open space, conservation areas, cash-in-lieu and maintenance periods.

The City of Greater Geraldton has a vision to have the capacity to sustain a population of up to 100,000 making the City the focal point for an active and vibrant region. This Public Open Space Strategy seeks to develop and manage its extensive public open space network in an efficient and equitable manner so that all residents may enjoy its many benefits, whilst not placing an unsustainable burden on the City of Greater Geraldton's public resources. The Public Open Space Strategy focuses on the Geraldton urban area and towns, and plans for community-focused open space networks for the next 20 years and beyond.

1.0 OVERVIEW

1.1 Introduction

Geraldton is known as the Sun City and enjoys an average of 8 hours of sunshine per day. The regular windy weather influences people's decisions about when and where to be active. Social and cultural facilities and infrastructure and services are of a high standard. A wide range of sporting facilities and community sports clubs operate in Greater Geraldton, and sport forms a strong part of people's identity and sense of community.

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 CGG seeks to develop and manage its extensive public open space network in an efficient and equitable manner so that all residents may enjoy its many benefits, whilst not placing an unsustainable burden on the CGG's public resources. As community needs, expectations and demographics change it is important that the CGG develops a long-term, more sustainable strategic plan for the future provision and management of public open space. The essential function of this Strategy is to understand the supply and demand for open spaces, to identify key deficiencies, to improve the quality of existing spaces and identify areas of new provision.



Water Playground – Geraldton Foreshore

The Public Open Space Strategy classifies open spaces where community access is encouraged and explicitly managed. While it is acknowledged that substantial recreation activities occur in other areas of publicly accessible space, the Strategy is focused on urban areas where the mandatory minimum 10% public open space provisions apply. The Strategy is not intended to apply to areas where the primary purpose or function is identified as:

- Preservation and restoration of natural features and values such as conservation estates, nature reserves or similar.
- Where statutory responsibility lies with the Department of Environment and Conservation or other State Government body.

This Strategy aims to provide a clear direction on the level of open space provision currently experienced in the urban areas of the CGG and also to provide minimum standards for the development of public open space. The Public Open Space Strategy focuses on the Geraldton urban area and towns, and plans for community-focused open space networks for the next 20 years and beyond.

1.2 Role of Open Space

The role of public open space is multi-faceted. Well designed, effectively managed and maintained public open space is vital to quality of life and environmental integrity. It is a public resource that benefits members of the whole community, regardless of where they live, the lifestyle they lead, their age or physical capacity.

Research has shown that parks and open spaces have multiple roles in many of our towns and cities. Open spaces can offer a number of benefits to the community including environmental/ecological benefits (e.g. preserving biodiversity), social benefits (e.g. socialisation and healthy living) and economic benefits (e.g. tourism).

People use parks and open space for a variety of reasons based upon their needs, preferences, available time and physical capabilities. Working families may face time constraints limiting the time they can spend visiting parks and open spaces, but may generally need more frequent access to pocket parks which young children can walk to and easy access to sporting/recreation facilities for older children's sports. Youth may require spaces for active recreation such as skateboard parks, ovals for sports, tennis courts as well as spaces to socialise away from the public gaze. Older people may require passive spaces to meet and socialise as well as active recreation facilities such as lawn bowls, golf courses, tennis courts, fitness centres and other non-organised physical activity.

Bayside Waterfront – Drummond Cove



The main functions of public open space include:

- relaxation
- exploration
- social interaction
- sharing knowledge
- exercise (humans and pets)
- improving/maintaining physical and mental health
- sport (competing and spectating)
- children's play and development
- opportunities for seniors' activities
- learning
- improving / maintaining environmental quality
- nature, wildlife habitat and biodiversity conservation
- integrated water management
- water conservation
- interaction with the natural environment
- supporting the organisation and function of the urban environment
- connectivity of networks (pedestrian, cycle, wildlife migration)
- sense of place, identity and history
- visual amenity (landscape)
- contributing to community and economic value of localities
- tourism
- arts
- celebration
- quality of life.

1.3 Strategy Objectives

The Public Open Space Strategy is a framework document to guide the provision and development of all public open space primarily within the Greater Geraldton urban area and towns.

The Strategy will provide a basis for the improvement of the quality and diversity of parks and the delivery of improved recreation services to ensure more sustainable use of the CGG's resources.

The objectives of the Strategy are to:

- Undertake a public open space audit;
- Achieve regional variations for public open space provision in accordance with Liveable Neighbourhoods requirements;
- Establish a hierarchy of public open space types and proposed service levels;
- Create design principles to guide the location, size, layout landscaping and servicing of public open space to be used by the CGG, developers and the community;
- Provide recommendations on opportunities regarding consolidation of public open space through land acquisition, land disposal and/or land exchanges; and
- Review the potential of incorporating biodiversity within public open space and recommendations for preservation.

1.4 Strategy Methodology

The following methodology was employed to guide the preparation of the Strategy.

1.4.1 Task 1 – Definition and Regional Variations

This included creating a working definition of ‘public open space’ that will be used for the Strategy. It also included the identification of regional variations to the requirements for public open space provision outlined in Liveable Neighbourhoods, which has included:

- The inclusion of well-established, landscaped foreshore and coastal reserves as public open space, or alternatively reducing the necessary public open space requirement in areas in proximity to high quality coastal areas; and
- Increasing the percentage of restricted public open space permitted within localities where conservation of high value vegetation is possible.

1.4.2 Task 2 – Hierarchy and Service Levels

This required the construction of a well-defined hierarchy of public open space, which included identifying service levels in order to define the provision of services that are appropriate for each level of the hierarchy. The hierarchy was based upon the levels provided within Liveable Neighbourhoods and the ‘Classification Framework for Public Open Space’ produced by the Department of Sport and Recreation. The service levels consist of a list of infrastructure and design requirements for each category of open space on the hierarchy.

1.4.3 Task 3 – Analysis of Current Provision

This comprised an analysis of current public open space focusing on the Geraldton urban area and also the townsites of Mullewa and Walkaway. The analysis took into account the quantity, quality, and location of public open space, the accessibility to public open space, as well as the hierarchy and service level described above. The analysis was conducted in accordance with the planning framework established in ‘Element 4 – Public parkland’ of Liveable Neighbourhoods.

The audit of the public open space was undertaken through the use of maps, aerial photographs and individual site visits. A full description was taken including photographs of each area of public open space. The audit included information on the quality of each open space addressing issues such as graffiti, lack of security and standard of equipment. Refer to the Background Report for the public open space site audit.

Once the site audit was complete, the data was compiled and each site was mapped into localities based on existing suburb/townsite boundaries. Once the public open space system was mapped, the following factors were mapped and considered:

- Non-residential areas within each locality were identified and deducted from the gross area of each precinct (refer to assumptions below as to what was deducted);

- For each locality the total area of existing public open space was divided into the net urban area (based on the gross planning precinct area minus deducted non-residential areas) to give a percentage of public open space for each locality;
- Regional Open Space as indicated on the Greater Geraldton Structure Plan was considered on the basis of whether or not it was 'activated' (refer to the assumptions below as to what was deducted and included with respect to regional open space); and
- Where applicable, the area of activated regional open space was added to the area of public open space and then divided into the net urban area to give an overall percentage of public open space for each locality. This process was used to derive the maps for each locality.

This process was used to derive the base maps for each locality which are contained in the Background Report.

Audit General Assumptions

- Only areas of coastal reserves and river reserves with facilities have been included in calculations as public open space, with the remainder of these reserves treated as deductions.
- Regional open space is considered 'activated' if it contains facilities and is regularly maintained by the CGG. All other regional open space without facilities is treated as a deduction.
- Unallocated Crown Land, Crown Reserves and CGG owned land are included in the audit as public open space. Any land in private freehold ownership with open space facilities or zoned appropriately for public open space has been included as public open space.
- Public and private schools have been deducted. This applies even when public schools have ovals or other recreational facilities that are accessible to the public.
- Small public purpose, halls and historic buildings less than 2,000m² have been included in the public open space areas and audit.
- If an oval or sports facility is accessible to the public then the club rooms have also been included in the public open space area.
- Small areas of public utilities within public open space have been included as part of the public open space on which they are located.
- Drainage if fenced off within public open space has been deducted.
- Drainage reserves have not been included and are treated as deductions.
- Most public utilities have been deducted although some have been included in the audit if located within or adjacent to a public open space area.
- All land which is not currently zoned 'Residential' or explicitly utilised for residential purposes has been treated as a deduction, with the exception of structure planning areas as outlined below.
- Areas with endorsed structure plans have been included in the calculations as if developed, with future locations of public open space shown.
- Areas which will in the future require structure planning and will be predominantly for residential use are wholly included in the net residential area, although some portion of these areas will ultimately become public open space.
- District or Regional roads as shown in the relevant Town/Local Planning Schemes have been deducted.
- Local roads servicing residential areas have been included in the net residential area.

- Natural and cultural areas that are located outside of coastal and river reserves have been included as public open space and audited.
- 10% of the net suburb area is considered to be the required public open space provision.

Drummond Cove Assumptions

- Leasehold cottages have been included as deductions as they are located within the coastal reserve.

West End Assumptions

- Leasehold cottages have been included as residential land as they are not located within the coastal reserve.

Once the base maps were finalised, strategy maps were then prepared building on the data contained in the base maps. The Strategy maps are included in Section 8.0 for each locality.

1.4.4 Task 4 – Future Provision

This required an investigation into future provision of public open space and the production of design principles to be used by the CGG, developers and the community which will outline the CGG's minimum requirements for public open space planning. The design principles cover five major areas, being:

- **Quantity:** using data from Task 3, provide recommendations for dealing with over and under supply in localities (referring to the regional variations determined in Task 1).
- **Quality:** recommend improvements to the current network to ensure that the CGG provides high quality public open space, taking into consideration Crime Prevention Through Environmental Design ('CPTED') principles and other urban planning practices.
- **Diversity:** highlight opportunities to diversify the types of public open space provided, taking into account the benefits of both active and passive uses.
- **Connections and Locations:** recommend ways to improve access to public open space by utilising cycle and pedestrian linkages (existing and proposed) as well as consider improved environmental outcomes through the provision of linear public open space and biodiversity linkages.
- **Landscape and Biodiversity Value:** examine opportunities to retain existing high quality native vegetation in future public open space areas or green linkages. The potential impacts of climate change and how best to manage them was also examined.

To achieve Task 4, the results of the previous three Tasks were taken into account, as well as planning best practice in areas including but not limited to CPTED, Water Sensitive Urban Design, Child Friendly Cities, Nature Play, Urban Heat Island mitigation and bicycle and pedestrian transport planning.

2.0 DEFINING PUBLIC OPEN SPACE

Liveable Neighbourhoods defines public open space as:

“land used or intended for use for recreational purposes by the public and includes parks, public gardens, foreshore reserves, playgrounds and sports fields but does not include regional open space and foreshore reserves.”

The Liveable Neighbourhoods definition is ambiguous in whether or not foreshore reserves constitute public open space, although Element 4 states that they are generally not considered as such. The CGG is seeking to vary this assertion in areas where considerable infrastructure has been or is scheduled to be provided to facilitate recreational use of foreshore reserves. Additionally, the Liveable Neighbourhoods definition does not take into account the potential for natural areas (such as high quality sections of remnant vegetation) to be incorporated into POS. Finally, some areas that have been classified as ‘Regional Open Space’ under the Greater Geraldton Structure Plan (such as the Eighth Street Sporting Complex and Eadon Clarke Reserve in Spalding) which also provide a valuable local function as they are activated and accessible to residents within a local catchment area. To address these issues, the following definition of public open space is used in this Strategy.

Public Open Space: *means land used or intended for use for active or passive recreational purposes by the public and includes parks, public gardens, serviced foreshore reserves, playgrounds, sports fields and land set aside for conservation.*



Muir Park - Strathalbyn

3.0 REGIONAL VARIATIONS

3.1 Serviced Foreshore and Coastal Reserves / 'Activated' Regional Open Space

It is proposed to classify areas of well established, landscaped and serviced foreshore and coastal reserves as public open space in recognition of the role these spaces play in meeting residents' active and passive recreational needs, as well as of the considerable amount of funding the CGG has invested in the development of these spaces, such as the Geraldton foreshore.

The community survey revealed that residents overwhelmingly prefer the foreshore to other areas of recreational space in Geraldton, with other areas of serviced coastal reserves, such as St. George's Beach in Bluff Point and the facilities in Drummond Cove, also proving popular. It is important, therefore, that the CGG is able to further enhance these spaces over time through the use of cash-in-lieu contributions for public open space, which may not be possible if the areas are not classified as such. In addition to the appropriate direction of funds, eliminating these areas from public open space calculations on a suburb level would lead to an unrealistic (under) representation of the provision of recreational facilities in suburbs adjacent to these areas.

It is noted that all areas of serviced foreshore and coastal reserves are depicted as 'Regional Park, Recreation and Conservation' under the Greater Geraldton Structure Plan and have therefore been depicted as 'Regional Open Space' on the Strategy. To differentiate serviced from unserviced areas (which are also classified as 'Regional Open Space') areas containing infrastructure have been shown on the Strategy maps as 'activated' regional open space. The activated areas have been factored into the total provision of public open space per locality, whilst the remaining regional open space has not.

Whilst activated regional open space primarily applies to serviced areas of foreshore reserve, it also includes sporting facilities such as the Eighth Street and Eadon Clarke complexes. As these areas are publicly accessible and contain active recreational facilities, it is considered that they provide recreational opportunities to residents in a local catchment as well as to users from other areas of the CGG. Importantly, these facilities are also required to be maintained by the CGG and therefore it is practical to have them formally classified as public open space. In addition to the appropriate direction of funds, eliminating these areas from public open space calculations on a locality level would again lead to an unrealistic (under) representation of the provision of recreational facilities in localities adjacent to these areas.

The CGG will include activated Regional Open Space in public open space calculations and considerations.

3.2 Conservation Areas

The Geraldton Regional Flora and Vegetation Survey, produced by the Western Australian Planning Commission (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.

As a result, the Public Open Space Strategy seeks a regional variation to increase the percentage of restricted use public open space permitted within localities where conservation of high value native vegetation is possible. 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 such as the preservation of natural areas. Liveable Neighbourhoods (Element 4 – R6) allows 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.

Given the significance of the native vegetation in the Geraldton region (as evidenced by the Geraldton Regional Flora and Vegetation Survey) the CGG seeks to vary this general provision in areas that have been demonstrated to contain high value native vegetation, and to allow the increases in ‘restricted use’ public open space to go toward the 10% contribution where it can be demonstrated that sufficient active and passive recreational opportunities have been provided within the locality. 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.

3.3 Cash in Lieu for Public Open Space

The 10% contribution of public open space in small-scale subdivisions 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 however 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.

The 10% public open space contribution has traditionally not been required of developers producing 5 lots or fewer. 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 ramifications for urban infill, where 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 to be paid for public open space in subdivisions where 3 or more lots are being created.

With respect to lots that are being strata titled, 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. ... Cash in-lieu could be provided in the same manner as it is with conventional subdivision.

The CGG will request cash-in-lieu to be paid for public open space in strata subdivisions where 3 or more lots are being created.

Cash-in-lieu funds received by a local government must be paid into a separate (trust) account. The WAPC's 'Planning Bulletin 21 – Cash-in-lieu of Public Open Space' outlines the manners in which cash-in-lieu funds may be used, including:

- for the purchase of land for parks, recreation grounds or open spaces generally, in the locality in which the subdivision is situated;
- in repaying loans raised by the local government for the purchase of such land; or
- with the approval of the Minister for Planning, for the improvement or development as parks, recreation grounds or open spaces generally of any land in the locality administered by the local government for any of those purposes.

Acceptable expenditure for cash-in-lieu funds may be for, clearing, seating, earthworks, spectator cover, grass planting, toilets, landscaping, change rooms, reticulation, lighting, play equipment, pathways, fencing, walk trails, car parking, and signs relating to recreational pursuits.

Given the strategic and pivotal nature of the activated Regional Open Space as identified in this Strategy, the CGG may request that cash-in-lieu funds be expended on the further development of these areas.



Kempton Street Foreshore – Bluff Point

4.0 HIERARCHY OF PUBLIC OPEN SPACE

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.

The following table outlines the hierarchy and the purpose/function expected for each classification.

Table 1 – PUBLIC OPEN SPACE HIERARCHY

CLASSIFICATION	PURPOSE AND FUNCTION
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.
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.
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.
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.
Conservation Areas	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.

In addition to the above hierarchy the Strategy identifies residual open space land that has been identified as being surplus to a well-structured public open space network that adequately services the needs of the City’s residents and visitors. Residual land does not provide a useful function to a significant portion of the community, due to poor location, incompatible adjacent land uses, poor access, limited size, lack of infrastructure or oversupply. The retention and maintenance of these spaces is unsustainable therefore can be considered for disposal for alternative land uses so that funds may be reallocated to the development of other new or existing spaces within the locality.



Chapman River Regional Park



Seacrest Estate – Wandina



Eighth Street Sporting Complex
– Wonthella

5.0 ANALYSIS OF CURRENT PUBLIC OPEN SPACE PROVISION

The background for the Public Open Space Strategy included a policy and literature review and local data collection via:

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

The Background Report contains the results of these surveys which were used to inform the analysis of usage patterns, policies and management practices.

5.1 Current Supply of Public Open Space

The below table summarises the information contained in the locality maps. For each locality, the total area of public open space and activated regional open space is shown. The areas of public open space and activated regional open space are then utilised to calculate percentage amount of public open space and activated regional open space in relation to the net locality area.

CGG Parks Map



Table 2 – CURRENT SUPPLY OF PUBLIC OPEN SPACE

Locality	Public Open Space (ha)	Activated 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*	1.6983	4.9056	5.20%
Bluff Point	1.8138*	5.9408	7.7546	8.58%
Cape Burney	9.8772*	1.3590	11.2362	2.98%
Drummond Cove	15.9792	0.8264	16.8056	12.56%
Geraldton	17.6504	12.4544	30.1048	13.97%
Glenfield	32.3937*	0	32.3937	4.90%
Karloo	3.1828	0	3.1828	1.34%
Mahomets Flats	7.6513*	1.001	8.6523	15.37%
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*	57.8965	63.8558	47.30%
Strathalbyn	7.5999	0	7.5999	6.00%
Sunset Beach	12.1092*	15.8549	27.9641	23.25%
Tarcoola Beach	1.9776	3.6115	5.5891	7.93%
Utakarra	18.7622*	52.1204	70.8826	32.72%
Waggrakine	25.7066*	0	25.7066	9.35%
Walkaway	15.1917	0	15.1917	29.99%
Wandina	27.6460*	0	27.6460	9.45%
Webborton	2.3971	0	2.3971	6.77%
West End	3.0085	2.0223	5.0308	27.25%
Wonthella	1.3122	85.9902	87.3024	86.43%
Woorree	8.2730	8.9216	17.1946	27.23%
TOTAL	267.527**	249.6973	517.2243	13.45%***

* 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 activated regional open space.

Although some localities are currently under the required 10% public open space provision, it is envisaged that through the development of vacant residential land the amount will increase.

It is important to note that when the provision of public open space and 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 13.83% of the total net area, which is in excess of the 10% requirement. It is therefore considered that there is a considerable supply of public open space.

5.2 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 people 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 of regional 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.



Batavia Coast Miniature Railway – Spalding Park

6.0 PUBLIC OPEN SPACE PROVISION STANDARDS

The development standards provide a framework to guide the classification, provision and development of all public open space within the City. The standards outlined in this Strategy address three themes:

- **Quantity standard** – how many different types of open space should there be for the City? This should be based on open space per residential land area.
- **Quality standard** – a level of quality which all spaces should attain. This should include a description of the required design, management standards and inclusive design standards.
- **Distance Standard** – how far people should have to travel to reach a particular type of space. This standard should be based on a distance threshold that takes into account any physical barriers to movement and the location of entrances to open space.

6.1 Quantity

The amount of open space per resident varies enormously between and within towns which is why state standards are not always the most useful measure for quantity. For the purposes of defining a quantity standard two key components have been considered these are:

- The local component – i.e., the minimum amount of open space that any area should have; and
- The city wide component – the minimum amount of city wide parks or sites that attract city wide and regional visitors.

Section 5.1 has calculated the quantity of existing public open space on a locality and city-wide basis.

Quantity can also refer to the size of areas of public open space, and can consider factors such as whether the space is large enough to accommodate the expected activities and amount of use generated by the catchment of population relative to its function. For example, certain classifications of public open space must be a certain size to accommodate particular organised sports. The size standards can also take into account issues such as maintenance and future development where public open spaces less than 4,000m² are generally considered unsustainable and costly to maintain and develop.

The size standards provide a mechanism for assessing if existing public open spaces are adequate and appropriate for the resident population. Size standards are also useful in assisting decision making for future development and maintenance of open space.

6.2 Quality

The aim of the quality standards is to provide a component against which to measure the need for improvement or enhancement of existing or proposed facilities. The quality standards devised for the Strategy have been based on the site audit.

The community survey contained some generic questions about quality that sought to identify those areas of “value” for the local community. Some of the responses to quality that were raised as part of the audit included:

- Be clear of vandalism;
- Be welcoming;
- Be healthy, safe and secure;
- Be clean and well maintained;
- Be managed in a sustainable manner and in accordance with a clear management plan;
- Promote the conservation of wildlife and the built heritage; and
- Reflect community needs and promote community involvement.

The importance of determining a snap shot of the quality of existing open spaces is that it addresses the issue of improving the standard of all existing parks and green spaces. The Strategy generally finds that there is sufficient open space for the city but it is the quality, diversity and maintenance that need to be improved.

The other side of quality is to consider what design standards should be considered as part of any new or improved park spaces. Public requests for facilities such as barbeques, skate parks etc. are often made on an ad-hoc basis with no established framework for identifying the appropriate location for such facilities. The aim of this Strategy is to provide a benchmark to base decisions for the provision of facilities in the best location for the community.

Whilst the aim of these standards is to provide uniformity of the classification and number of facility provision across the city, it is acknowledged that there will be some need for local variations based on different community needs and the variation in size between parks of the same function. This could apply to any of the proposed standards that there may be cases where variations are required.

Wanda Circle – Wandina



6.3 Distance

The aim of the distance standards is to protect and promote an accessible network of green space. The distance standards are based on the feedback from the community as to how far Geraldton residents feel it is reasonable to walk or travel to get to different types of space.

When applying distance standards the following factors need to be taken into account:

- Any physical barriers such as railways, main roads or steep slopes need to be taken into account as these may restrict the catchment population from accessing that site. Other provision should be made where such barriers exist.
- No single distance is given for active sports as participants in competitive sport will often travel significant distances for games and the location can vary according to fixtures.
- Distance is not the whole story when considering accessibility – when managing provision, other aspects such as disabled access, topography, visibility are also important.
- Where the distance standard to one type of open space is not met this may be addressed by the conversion or improvement of another site. In these cases the priority will be to increase the quality and visibility of the nearest existing spaces.
- The distances or catchment areas, or the distance between certain spaces is not the sole consideration for identifying spaces as residual, or available for disposal. Spaces that are closer together than designated by the service area may be performing an important function or value to the community or environment and would therefore need to be considered as part of the network.

6.4 Assessment of Site Characteristics

In order to determine the distribution and nature of proposed public open space areas, an assessment of the characteristics of the whole development should be undertaken. This should include an environmental appraisal to identify significant features and areas to be set aside for active and passive public open space and areas for conservation purposes.

If, based on the outcome from the site environmental appraisal the designation of public open space for conservation purposes is under consideration, the following issues will require attention:

- Opportunities to connect or create a linkage to other conservation areas, particularly regionally significant bushland areas to provide ecological corridors (reference should be made to the CGG's Local Biodiversity Strategy);
- Vegetation condition (bushland in relatively good condition will provide effective maintenance opportunities); and
- Landform (consider characteristics of unique landscape features).

6.5 Construction and Maintenance

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.

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.

2 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.

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.

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).



Wanderer Park (under construction) – Wandina

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 City will require detailed management plans as per Appendix 1.

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**

All non-irrigated areas of planting (or direct seeding): A minimum of 50% projected foliage cover (excluding any weeds) with no bare soil areas > 2m².

All irrigated planting areas: A minimum of 70% projected foliage cover (excluding any weeds) with no bare soil areas > 0.5m².

All non-irrigated areas of grass: A minimum 70% grass foliage cover (excluding any weeds) with no bare soil areas > 1m².

All irrigated areas of grass: A minimum 95% grass foliage cover (excluding any weeds) with no bare soil areas > 0.5m².

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

For regeneration of natural areas: 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.

For all other areas: 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**

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

All areas of direct seeding: 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.

6.6 Provision Standards

The provision standards have been developed for each classification of public open space on the hierarchy developed in Section 4.0 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.



Chapman River – Spalding

Table 4 – LOCAL OPEN SPACE PROVISION STANDARDS

Local Open Space	
Quantity / Typical size	4,000m ² to 1ha*
Distance / Access	Within 400m or 5 minute walk.
Location and design	<p>Local open space should:</p> <ul style="list-style-type: none"> • Be located within a 5 minute walk from surrounding residences. • Include accessible, safe pedestrian and cycling connections. • Form part of an overall pedestrian and cycling network to connect key destination points. • Support good passive surveillance. • Be responsive to natural site features. • Build on sense of place. • Assist to preserve local biodiversity and natural area values.
Activities	<p>Activities may include:</p> <ul style="list-style-type: none"> • Children’s play, dog walking, picnics, friends and family gatherings. • Relaxation and rest spots. • Casual team activities. • Walking, running or cycling.
Quality / Service level	<ul style="list-style-type: none"> • Bollards • Seating • Minimal turf area • Water sensitive landscaping (including shade trees) • Signage • Bin (and pet litter bags) • Internal pathways
<p>* 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.</p>	



Corallina Quays Park – Sunset Beach

Table 5 – NEIGHBOURHOOD OPEN SPACE PROVISION STANDARDS

Neighbourhood Open Space	
Quantity / Typical size	1ha to 5ha
Distance / Access	Within 800m or 10 minute walk.
Location and design	<p>Neighbourhood open space should:</p> <ul style="list-style-type: none"> • Be central to surrounding neighbourhoods. • Include accessible, safe pedestrian and cycling connections. • Form part of an overall pedestrian and cycling network to connect key destination points. • Support good passive surveillance. • Be responsive to natural site features. • Build on sense of place. • Assist to preserve local biodiversity and natural area values. <p>Neighbourhood open space may also:</p> <ul style="list-style-type: none"> • Be collocated with schools to create a community hub. • Be large enough to enable different activities and uses to occur simultaneously.
Activities	Neighbourhood open space may include a combination of open parkland and bushland with activity spaces for casual play. They may include sport facilities, depending on ability to accommodate desirable field dimensions and necessary supporting amenity.
Quality / Service level	<ul style="list-style-type: none"> • 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



Seahaven Park – Drummond Cove

Table 6 – DISTRICT OPEN SPACE PROVISION STANDARDS

District Open Space	
Quantity / Typical size	5ha to 15+ha
Distance / Access	Within 2km or 5 minute drive. District open space may provide sporting facilities for the wider district and surrounding communities.
Location and design	<p>District open space should:</p> <ul style="list-style-type: none"> • Be central to the catchment to maximise accessibility. • Accommodate the recommended dimensions and supporting amenity for formal sport and recreation. • Be located on district distributor roads with good passive surveillance. • Be serviced by public transport networks. • Include accessible, safe pedestrian and cycling connections. <p>District open space may also:</p> <ul style="list-style-type: none"> • Be collocated with a school or other community facilities to create a community hub. • Provide a significant visual break in the urban environment, particularly along major thoroughfares. • Assist to preserve local biodiversity and natural area values.
Activities	<p>District open space may:</p> <ul style="list-style-type: none"> • Consist of sufficient space to accommodate a variety of concurrent uses, including organised sports, children's play, picnicking, exercising the dog, social gatherings and individual activities. • Include a combination of bushland, open parkland for casual play and space for organised sport. • Accommodate multiple user groups, clubs and associations.
Quality / Service level	<ul style="list-style-type: none"> • 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

Glendinning Park – Tarcoola Beach



Table 7 – REGIONAL OPEN SPACE PROVISION STANDARDS

Regional Open Space	
Quantity / Typical size	Size is variable and dependant on function. When sporting space is identified as a necessary regional function, allocations for playing fields and sports facilities should be 20+ha in area.
Distance / Access	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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Regional open space should be large enough to accommodate various concurrent uses, including organised sports, children's play, picnicking, bush walking and protection of natural features.
Quality / Service level	<ul style="list-style-type: none"> • 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



HMAS Sydney II Memorial – Geraldton

Table 8 – CONSERVATION AREAS PROVISION STANDARDS

Conservation areas		
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	<ul style="list-style-type: none"> • Fencing • Walk trail 	<ul style="list-style-type: none"> • Signage



Tom Muir Arboretum – Strathalbyn

7.0 PUBLIC OPEN SPACE DESIGN PRINCIPLES

7.1 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.

7.2 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.

7.3 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.

Eadon Clarke Sports Ground
Redevelopment – Spalding



7.4 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.

7.5 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).

7.6 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.

7.7 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.

7.8 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.

7.9 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.



Dome – Geraldton Foreshore

8.0 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. Appendix 2 contains the individual locality maps.

8.1 Beachlands

BEACHLANDS			
Total Locality Area	138.5015 hectares		
Gross Subdivisible Area	83.1983 hectares		
Public Open Space @ 10%	8.3198 hectares		
Quantity of Public Open Space	Activated Regional Open Space	Public Open Space	Total
	nil	8.0875 hectares	8.0875 hectares
Public Open Space Provision	9.72% or 2,323m ² UNDER provision		
Quality of Public Open Space	Public open space provision in Beachlands is relatively good with a wide range of both active and passive recreational facilities. The focus is on the Recreation Ground and to a lesser extent the Fraser/Gregory Park, both of which have additional development potential. Access and proximity to the beach to the south (across John Willcock Link) and to the town centre increases the availability of public open space.		
Distance 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 open space network. The foreshore areas to the south are a further significant recreational focus for the locality (even though they are not activated and not included in the public open space calculations).		
Comments	Beachlands consists of a full range of public open spaces and is slightly under its 10% requirement. Foreshore areas to the south provide an additional recreational resource.		
Recommendations	<p>Burgess Street Park is too small to accommodate sustainable public open space and should be disposed of. Also the southern “leg” of the Recreation Ground does not serve any recreational purpose. Although this would result in a further reduction of public open space provision, it is considered that the adequacy of public open space in the locality would not be compromised. The site is currently not developed and does not provide any recreational function. The revenue generated from its disposal could be directed into upgrades of public open space in the locality.</p> <p>No further areas of public open space should be provided (other than those identified) with a preference for cash-in-lieu.</p>		

8.2 Beresford

BERESFORD			
Total Locality Area	143.3845 hectares		
Gross Subdivisible Area	94.3359 hectares		
Public Open Space @ 10%	9.4336 hectares		
Quantity of Public Open Space	Activated Regional Open Space	Public Open Space	Total
	1.6983 hectares	3.2073 hectares	4.9056 hectares
Public Open Space Provision	5.20% or 4.5280 hectares UNDER provision		
Quality of Public Open Space	Overall, the public open space provision in Beresford is relatively average however the Marina Park and portions of the Beresford foreshore provide for a range of facilities. The Beresford foreshore has significant development potential.		
Distance of Public Open Space	Most of the locality is adequately covered by walkable catchments to existing facilities. The open space areas of the Geraldton Grammar School further expand the available open space network. 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).		
Comments	Although Beresford is generally lacking in facilities and 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.		
Recommendations	<p>There are 2 sites in the eastern part of the locality that are too small to accommodate sustainable public open space and should be disposed of. Kononen POS serves only a limited catchment and is in close proximity to the Geraldton Grammar School and Apex Park. Although this would result in a further reduction of public open space provision, it is considered that the adequacy of public open space in the locality would not be compromised. The revenue generated from their disposal could be directed into upgrades of public open space in the locality.</p> <p>Although not identified, Lillian Shaw Park may have potential for disposal as the site is very small. The park could be “transferred” over Chapman Road to the foreshore side where there is an activated part of the foreshore. This would however be entirely dependent on the approval of the original family that bequeathed the land to the City.</p> <p>No further areas of public open space should be provided (other than those identified) with a preference for cash-in-lieu.</p>		

8.3 Bluff Point

BLUFF POINT			
Total Locality Area	153.3882 hectares		
Gross Subdivisible Area	90.4248 hectares		
Public Open Space @ 10%	9.0425 hectares		
Quantity of Public Open Space	Activated Regional Open Space	Public Open Space	Total
	5.9408 hectares	1.8138 hectares	7.7546 hectares
Public Open Space Provision	8.58% or 1.2879 hectares UNDER provision		
Quality of Public Open Space	Public open space provision in Bluff Point is good with a wide range of both active and passive recreational facilities. The coastal foreshore provides a range of facilities and has development potential. Access to the beach, Spalding Park and the Chapman River increases the availability of active and passive open spaces to residents.		
Distance of Public Open Space	The whole locality is adequately covered by walkable catchments to existing facilities. 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. The locality at its furthest is from 100m in the south to 800m in the north from the foreshore area to the west, which is a further significant recreational focus.		
Comments	Bluff Point consists of a full range of public open spaces and is slightly under its 10% requirement.		
Recommendations	<p>There are 2 lots off Harrison Street that were given to the City as freehold lots in lieu of public open space that are too small to accommodate sustainable public open space and should be disposed of. The revenue generated from their disposal could be directed into upgrades of public open space in the locality.</p> <p>The future public open space area to the south should provide some local open space in conjunction with the need to preserve the historic former rail alignment.</p> <p>No further areas of public open space should be provided (other than those identified) with a preference for cash-in-lieu.</p>		

8.4 Cape Burney

CAPE BURNEY			
Total Locality Area	538.2416 hectares		
Gross Subdivisible Area	376.8377 hectares		
Public Open Space @ 10%	37.6838 hectares		
Quantity of Public Open Space	Activated Regional Open Space	Public Open Space	Total
	1.3590 hectares	9.8772 hectares	11.2362 hectares
Public Open Space Provision	2.98% or 26.4476 hectares UNDER provision		
Quality of Public Open Space	The existing public open space provision in Cape Burney is adequate for the existing resident population. The low % of public open space provision reflects the substantial areas that have not yet been developed for residential purposes. The foreshore areas (including Southgates Dunes) and Greenough River are a further significant recreational focus.		
Distance of Public Open Space	The developed areas of the locality are adequately covered by walkable catchments to existing facilities.		
Comments	Cape Burney consists of a range of public open spaces. Foreshore areas and the Greenough River provide a significant recreational focus (even though only small portions are activated). With the future development of residential areas the % and range of open spaces will be further provided.		
Recommendations	An activated node focussed on the redevelopment of the City's land near the Greenough River mouth should provide for a range of boating, fishing, active and passive recreational pursuits.		

8.5 Drummond Cove

DRUMMOND COVE			
Total Locality Area	160.0722 hectares		
Gross Subdivisible Area	133.7693 hectares		
Public Open Space @ 10%	13.3769 hectares		
Quantity of Public Open Space	Activated Regional Open Space	Public Open Space	Total
	0.8264 hectares	15.9792 hectares	16.8056 hectares
Public Open Space Provision	12.56% or 3.4287 hectares OVER provision		
Quality of Public Open Space	Public open space provision in Drummond Cove is good with a wide range of both active and passive recreational facilities.		
Distance of Public Open Space	The whole locality is adequately covered by walkable catchments to existing facilities. The locality at its furthest is 800m from the foreshore areas to the west, which is a further significant recreational focus for the locality.		
Comments	Drummond Cove consists of a full range of public open spaces and is slightly over its 10% requirement. Once the cottages are removed on the west side of Whitehill Road this will present an opportunity to further enhance the open space facilities of the foreshore.		
Recommendations	A Landscape Master Plan should be prepared for the foreshore area once the cottages have been removed. 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.		

8.6 Geraldton

GERALDTON			
Total Locality Area	449.9256 hectares		
Gross Subdivisible Area	215.5197 hectares		
Public Open Space @ 10%	21.5512 hectares		
Quantity of Public Open Space	Activated Regional Open Space	Public Open Space	Total
	12.4554 hectares	17.6504 hectares	30.1048 hectares
Public Open Space Provision	13.97% or 8.5528 hectares OVER provision		
Quality of Public Open Space	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. Focus is on the Geraldton Foreshore which is the largest single recreation attractor in the City.		
Distance of Public Open Space	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 eastern area of the locality is largely undeveloped (adjacent to the North West Coastal Highway) and structure planning should address public open space provision.		
Comments	Geraldton consists of an extensive range of local, neighbourhood and regional public open spaces and is over its 10% requirement. The quality of most of the open space areas is commensurate with the status of the locality containing the City Centre.		
Recommendations	<p>There are a number of sites in the eastern part of the locality that are too small to accommodate sustainable public open space and should be disposed of. The revenue generated from their disposal could be directed into upgrades of public open space in the locality.</p> <p>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).</p>		

8.7 Glenfield

GLENFIELD			
Total Locality Area	824.5988 hectares		
Gross Subdivisible Area	660.8315 hectares		
Public Open Space @ 10%	66.0832 hectares		
Quantity of Public Open Space	Activated Regional Open Space	Public Open Space	Total
	nil	32.3937 hectares	32.3937 hectares
Public Open Space Provision	4.90% or 33.6895 hectares UNDER provision		
Quality of Public Open Space	The Glenfield locality is currently not serviced by public open space and is largely undeveloped or in a semi-rural state. Existing residential areas to the north utilise the adjacent Drummond Cove facilities and to the south, the Sunset Beach facilities. The substantial foreshore area to the west will provide a significant recreational focus.		
Distance of Public Open Space	Future public open space as identified in structure planning to the east provides adequate walkable catchments to the future residential areas.		
Comments	With the future development of residential areas the % and range of open spaces will be further provided.		
Recommendations	There is a small site off Macedonia Drive that is too small to accommodate sustainable public open space and should be disposed of. The revenue generated from its disposal could be directed into upgrades or acquisition of public open space in the locality.		

8.8 Karloo

KARLOO			
Total Locality Area	405.7676 hectares		
Gross Subdivisible Area	236.6615 hectares		
Public Open Space @ 10%	23.6662 hectares		
Quantity of Public Open Space	Activated Regional Open Space	Public Open Space	Total
	nil	3.1828 hectares	3.1828 hectares
Public Open Space Provision	1.34% or 20.4834 hectares UNDER provision		
Quality of Public Open Space	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.		
Distance of Public Open Space	The open space area of John Willcock College further expands the open space network.		
Comments	With the future development of residential areas the % and range of open spaces will be further provided.		
Recommendations	Future structure planning should address public open space with a focus on protecting areas of significant vegetation.		

8.9 Mahomets Flats

MAHOMETS FLATS			
Total Locality Area	92.3620 hectares		
Gross Subdivisible Area	56.2912 hectares		
Public Open Space @ 10%	5.6291 hectares		
Quantity of Public Open Space	Activated Regional Open Space	Public Open Space	Total
	1.001 hectares	7.6513 hectares	8.6523 hectares
Public Open Space Provision	15.37% or 3.0232 hectares OVER provision		
Quality of Public Open Space	The overall provision of public open space in Mahomets Flats is good with a range of both active and passive recreational facilities. The coastal foreshore, focused on the surf club, provides further facilities.		
Distance of Public Open Space	The whole locality is covered by walkable catchments to existing facilities. The foreshore area to the west is a further significant recreational focus for the locality.		
Comments	Mahomets Flats consists of a range of local and regional, foreshore facilities and is over its 10% requirement.		
Recommendations	<p>There is a small lot off McAleer Drive that is too small to accommodate sustainable public open space and should be disposed of. The revenue generated from their disposal could be directed into upgrades of public open space in the locality.</p> <p>No further areas of public open space should be provided (other than those identified) with a preference for cash-in-lieu.</p>		

8.10 Mount Tarcoola

MOUNT TARCOOLA			
Total Locality Area	215.7278 hectares		
Gross Subdivisible Area	171.9077 hectares		
Public Open Space @ 10%	17.1908 hectares		
Quantity of Public Open Space	Activated Regional Open Space	Public Open Space	Total
	nil	14.7099 hectares	14.7099 hectares
Public Open Space Provision	8.56% or 2.4809 hectares UNDER provision		
Quality of Public Open Space	The overall provision of public open space in Mount Tarcoola is relatively good with a range of both active and passive recreational facilities.		
Distance of Public Open Space	The whole locality is covered by walkable catchments to existing facilities. The open space area of the Mt. Tarcoola 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.		
Comments	Mount Tarcoola consists of local, neighbourhood and conservation public open spaces and is slightly under its 10% requirement.		
Recommendations	No further areas of public open space should be provided (other than those identified) with a preference for cash-in-lieu.		

8.11 Mullewa

MULLEWA			
Total Locality Area	145.7988 hectares		
Gross Subdivisible Area	89.7415 hectares		
Public Open Space @ 10%	8.9742 hectares		
Quantity of Public Open Space	Activated Regional Open Space	Public Open Space	Total
	nil	15.7888 hectares	15.7888 hectares
Public Open Space Provision	17.59% or 6.8147 hectares OVER provision		
Quality of Public Open Space	The provision of public open space in Mullewa is commensurate with its status as a regional townsite. It is self-contained and provides a range of active and passive recreational facilities.		
Distance of Public Open Space	The whole townsite is covered by walkable catchments to existing facilities. Access to primary and high school open space areas further expand the available open space network.		
Comments	Mullewa consists of local and district open spaces and is well in excess of its 10% requirement.		
Recommendations	<p>There are a number of sites in the northern part of the townsite that are too small to accommodate sustainable public open space and should be disposed of. The revenue generated from their disposal could be directed into upgrades of public open space in the locality.</p> <p>No further areas of public open space should be provided (other than those identified) with a preference for cash-in-lieu.</p>		

8.12 Rangeway

RANGEWAY			
Total Locality Area	179.8010 hectares		
Gross Subdivisible Area	129.8267 hectares		
Public Open Space @ 10%	12.9827 hectares		
Quantity of Public Open Space	Activated Regional Open Space	Public Open Space	Total
	nil	7.2418 hectares	7.2418 hectares
Public Open Space Provision	5.58% or 5.7409 hectares UNDER provision		
Quality of Public Open Space	Public open space provision in Rangeway is generally average. Facilities are limited to a few sites with areas undeveloped.		
Distance of Public Open Space	The whole locality is covered by walkable catchments to existing facilities. The open space areas of the Rangeway and St. John Primary Schools further expand the open space network.		
Comments	Rangeway consists of local and neighbourhood public open spaces and is under its 10% requirement. It is important to note that the area containing the Bundiyarra Aboriginal Community Aboriginal Corporation, although zoned for recreation, has been deducted from the calculations as it is not a public space. Access and proximity to the regional facilities of the Eighth Street Sporting Complex, Wonthella are also an important aspect of the expanded recreational opportunities in the locality.		
Recommendations	<p>There is a small site north of the GRAMS Reserve that is too small to accommodate sustainable public open space and should be disposed of. There are 4 lots off Marri Court that were given to the City as freehold lots in lieu of public open space that are too small to accommodate sustainable public open space and should be disposed of.</p> <p>Additionally the large area off Keating Street is currently not developed and does not provide any recreational function. Residents have complained that the site harbours anti-social behaviour. Although this would result in a further reduction of public open space provision, it is considered that the revenue generated from their disposal would be far more beneficial to the residents to enable upgrades of public open space in the locality.</p> <p>No further areas of public open space should be provided (other than those identified) with a preference for cash-in-lieu. Generating funds to develop the existing open spaces should be the priority.</p>		

8.13 Spalding

SPALDING			
Total Locality Area	441.1619 hectares		
Gross Subdivisible Area	135.0103 hectares		
Public Open Space @ 10%	13.5010 hectares		
Quantity of Public Open Space	Activated Regional Open Space	Public Open Space	Total
	57.8965 hectares	5.9593 hectares	63.8558 hectares
Public Open Space Provision	47.30% or 50.3548 hectares OVER provision		
Quality of Public Open Space	In general the public open space provision in Spalding is average however there are regional open spaces that have excellent facilities. The locality has a wide range of active and passive recreational facilities.		
Distance of Public Open Space	The whole locality is covered by walkable catchments to existing facilities. The Chapman River to the north and east is a significant focus for the locality.		
Comments	Spalding consists of local and regional open spaces with substantial areas used for conservation purposes. The locality far exceeds its 10% requirement however much of this is attributed to the activated regional open spaces.		
Recommendations	<p>There are a number of sites in the locality that are too small to accommodate sustainable public open space and should be disposed of. There are 5 lots off Craine Place that were given to the City as freehold lots in lieu of public open space that are too small to accommodate sustainable public open space and should be disposed of.</p> <p>The revenue generated from their disposal could be directed into upgrades of larger existing public open space in the locality.</p> <p>No further areas of public open space should be provided (other than those identified) with a preference for cash-in-lieu. Generating funds to develop the existing open spaces should be the priority.</p>		

8.14 Strathalbyn

STRATHALBYN			
Total Locality Area	166.4970 hectares		
Gross Subdivisible Area	126.6205 hectares		
Public Open Space @ 10%	12.6621 hectares		
Quantity of Public Open Space	Activated Regional Open Space	Public Open Space	Total
	nil	7.5999 hectares	7.5999 hectares
Public Open Space Provision	6.00% or 5.0622 hectares UNDER provision		
Quality of Public Open Space	The provision of public open space in Strathalbyn is good with a range of both active and passive recreational facilities.		
Distance of Public Open Space	The whole locality is covered by walkable catchments to existing facilities. The Chapman River to the east is a significant focus for the locality. The open space areas of Strathalbyn Christian College further expand the available open space network.		
Comments	Strathalbyn consists of neighbourhood and district open spaces with regional areas along the Chapman River and a dedicated conservation Arboretum. The locality is under its 10% requirement however it should be noted that it is a low density locality with the quality and diverse range of facilities compensating for the reduced open space areas.		
Recommendations	No further areas of public open space should be provided (other than those identified) with a preference for cash-in-lieu. Generating funds to develop the existing open spaces should be the priority.		

8.15 Sunset Beach

SUNSET BEACH			
Total Locality Area	186.3272 hectares		
Gross Subdivisible Area	120.2540 hectares		
Public Open Space @ 10%	12.0254 hectares		
Quantity of Public Open Space	Activated Regional Open Space	Public Open Space	Total
	15.8549 hectares	12.1092 hectares	27.9641 hectares
Public Open Space Provision	13.25% or 15.9387 hectares OVER provision		
Quality of Public Open Space	Public open space provision in Sunset Beach is good with a range of active and passive recreational facilities. The coastal foreshore provides a limited range of facilities and has development potential. Access to the beach and the Chapman River increases the availability of active and passive open spaces to residents.		
Distance of Public Open Space	The existing developed area of the locality is adequately covered by walkable catchments to existing facilities. The locality at its furthest is from 900m in the south to 500m in the north from the foreshore area to the west, which is a further significant recreational focus.		
Comments	Sunset Beach consists of local, neighbourhood and regional open spaces and is well above its 10% requirement. Much of this is attributed to the activated regional open spaces. With the future development of residential areas and a future primary school, the range of open spaces will be enhanced.		
Recommendations	Although a large area of Eastbourne Reserve and Spalding Park Horse and Pony Club is shown for disposal, it is not intended that all the areas will be disposed of. The detailed precinct planning for Sunset Beach will identify what areas are proposed to be retained as part of the activity centre.		

8.16 Tarcoola Beach

TARCOOLA BEACH			
Total Locality Area	138.9952 hectares		
Gross Subdivisible Area	70.4607 hectares		
Public Open Space @ 10%	7.0461 hectares		
Quantity of Public Open Space	Activated Regional Open Space	Public Open Space	Total
	3.6115 hectares	1.9776 hectares	5.5891 hectares
Public Open Space Provision	7.93% or 1.4570 hectares UNDER provision		
Quality of Public Open Space	Public open space provision in Tarcoola Beach is good with a range of active and passive recreational facilities. The coastal foreshore provides a range of facilities and has development potential. Access to the beach increases the availability of active and passive open spaces to residents.		
Distance of Public Open Space	The locality is covered by walkable catchments to existing facilities. The locality at its furthest is 250m from the foreshore area to the west, which is a further significant recreational focus.		
Comments	Tarcoola Beach consists of local, district and regional open spaces and is slightly under its 10% requirement.		
Recommendations	No further areas of public open space should be provided (other than those identified) with a preference for cash-in-lieu. Generating funds to develop the existing open spaces should be the priority.		

8.17 Utakarra

UTAKARRA			
Total Locality Area	494.0240 hectares		
Gross Subdivisible Area	216.6223 hectares		
Public Open Space @ 10%	21.6622 hectares		
Quantity of Public Open Space	Activated Regional Open Space	Public Open Space	Total
	52.1204 hectares	18.7622 hectares	70.8826 hectares
Public Open Space Provision	32.72% or 49.2204 hectares OVER provision		
Quality of Public Open Space	In general the public open space provision in Utakarra is average however there are district and regional open spaces that have excellent facilities. The locality has a wide range of passive and active recreational facilities.		
Distance of Public Open Space	The whole locality is covered by walkable catchments to existing facilities. The regional facilities to the north form part of the Eighth Street Sporting Complex, Wonthella and are an important aspect of the expanded recreational opportunities in the locality.		
Comments	Utakarra consists of local, district and regional open spaces. The locality far exceeds its 10% requirement however much of this is attributed to the activated regional open spaces. With the future development of residential areas the range of open spaces will be enhanced.		
Recommendations	<p>There are sites in east of the locality that should be disposed of. The eastern area is not residential and therefore the sites serve no immediate catchment. There is a lot off Blencowe Road that was given to the City as freehold lots in lieu of public open space and should be disposed of.</p> <p>The Sporting Futures Report makes recommendations regarding the disposal of Greenough Oval to fund the new southern district sporting facility in Rudds Gully.</p>		

8.18 Waggrakine

WAGGRAKINE			
Total Locality Area	1,784.2977 hectares		
Gross Subdivisible Area	275.0811 hectares		
Public Open Space @ 10%	27.5081 hectares		
Quantity of Public Open Space	Activated Regional Open Space	Public Open Space	Total
	nil	25.7066 hectares	25.7066 hectares
Public Open Space Provision	9.35% or 1.8015 hectares UNDER provision		
Quality of Public Open Space	In general the public open space provision in Waggrakine is average. The locality has a range of passive and active recreational facilities.		
Distance of Public Open Space	The developed residential areas of the locality are covered by walkable catchments to existing facilities. The Chapman River regional facilities to the south are an important aspect of the expanded recreational opportunities in the locality. The open space areas of Waggrakine Primary School further expand the available open space network.		
Comments	Waggrakine consists of local and neighbourhood open spaces. The locality is only slightly under its 10% requirement. With the future development of residential areas and school sites, the range of open spaces will be enhanced.		
Recommendations	No further areas of public open space should be provided (other than those identified) with a preference for cash-in-lieu. Generating funds to develop the existing open spaces should be the priority.		

8.19 Walkaway

WALKAWAY			
Total Locality Area	58.4290 hectares		
Gross Subdivisible Area	50.6629 hectares		
Public Open Space @ 10%	5.0663 hectares		
Quantity of Public Open Space	Activated Regional Open Space	Public Open Space	Total
	nil	15.1917 hectares	15.1917 hectares
Public Open Space Provision	29.99% or 10.1254 hectares OVER provision		
Quality of Public Open Space	The provision of public open space in Walkaway is commensurate with its status as a regional townsite. It is self-contained and provides a range of active and passive recreational facilities.		
Distance of Public Open Space	The whole townsite is covered by walkable catchments to existing facilities. Access to the open space areas of the Walkaway Primary School further expands the available open space network.		
Comments	Walkaway consists of local and district open spaces and is well in excess of its 10% requirement.		
Recommendations	No further areas of public open space should be provided (other than those identified) with a preference for cash-in-lieu. Generating funds to develop the existing open spaces should be the priority.		

8.20 Wandina

WANDINA			
Total Locality Area	321.0108 hectares		
Gross Subdivisible Area	292.5412 hectares		
Public Open Space @ 10%	29.2541 hectares		
Quantity of Public Open Space	Activated Regional Open Space	Public Open Space	Total
	nil	27.6460 hectares	27.6460 hectares
Public Open Space Provision	9.45% or 1.6081 hectares UNDER provision		
Quality of Public Open Space	Public open space provision in Wandina is good with a range of both active and passive recreational facilities.		
Distance of Public Open Space	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 the expanded recreational opportunities in the locality.		
Comments	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.		
Recommendations	No further areas of public open space should be provided (other than those identified) with a preference for cash-in-lieu.		

8.21 Webberton

WEBBERTON			
Total Locality Area	253.0193 hectares		
Gross Subdivisible Area	35.3928 hectares		
Public Open Space @ 10%	3.5393 hectares		
Quantity of Public Open Space	Activated Regional Open Space	Public Open Space	Total
	nil	2.3971 hectares	2.3971 hectares
Public Open Space Provision	6.77% or 1.1422 hectares UNDER provision		
Quality of Public Open Space	The residential area of Webberton is relatively small and is currently an adjunct to Spalding / Strathalbyn to the north / east. No open space areas are developed.		
Distance of Public Open Space	The residential area of the locality is covered by walkable catchments from within the Spalding and Strathalbyn localities adjacent. The Chapman River regional facilities to the north are an important aspect of the expanded recreational opportunities in the locality.		
Comments	Webberton is under its 10% requirement but is serviced by the facilities in the adjacent Spalding and Strathalbyn localities.		
Recommendations	No further areas of public open space should be provided (other than those identified) with a preference for cash-in-lieu. Generating funds to develop the existing open spaces should be the priority.		

8.22 West End

WEST END			
Total Locality Area	234.0809 hectares		
Gross Subdivisible Area	18.4646 hectares		
Public Open Space @ 10%	1.8465 hectares		
Quantity of Public Open Space	Activated Regional Open Space	Public Open Space	Total
	2.0223 hectares	3.0085 hectares	5.0308 hectares
Public Open Space Provision	27.25% or 3.1843 hectares OVER provision		
Quality of Public Open Space	Public open space in Beachlands is relatively good with a wide range of both active and passive recreational facilities. The focus is on the foreshore areas which have additional development potential. Access and proximity to the beach and to the town centre increases the availability of public open space.		
Distance of Public Open Space	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.		
Comments	The West End consists of local and regional open spaces. The locality far exceeds its 10% requirement however much of this is attributed to the activated regional open spaces.		
Recommendations	No further areas of public open space should be provided (other than those identified) with a preference for cash-in-lieu. Generating funds to develop the existing open spaces should be the priority.		

8.23 Wonthella

WONTHELLA			
Total Locality Area	370.3560 hectares		
Gross Subdivisible Area	101.0103 hectares		
Public Open Space @ 10%	10.1010 hectares		
Quantity of Public Open Space	Activated Regional Open Space	Public Open Space	Total
	85.9902 hectares	1.3122 hectares	87.3024 hectares
Public Open Space Provision	86.43% or 77.2014 hectares OVER provision		
Quality of Public Open Space	The public open space provision in Wonthella is good and there are regional open spaces that have excellent facilities. The locality has a wide range of active and passive recreational facilities.		
Distance of Public Open Space	The whole locality is covered by walkable catchments to existing facilities although the North West Coastal Highway does provide a significant pedestrian barrier to the areas to the west.		
Comments	Wonthella consists of local and regional open spaces with significant areas of active recreation. The locality far exceeds its 10% requirement however much of this is attributed to the activated regional open spaces. The Wonthella Federation Community Park is currently leased by the City from the Roman Catholic Bishop of Geraldton.		
Recommendations	Sites in the west of the locality are too small to accommodate sustainable public open space and should be disposed of. No further areas of public open space should be provided (other than those identified) with a preference for cash-in-lieu. Generating funds to acquire the Wonthella Federation Community Park should be the priority.		

8.24 Woorree

WOORREE			
Total Locality Area	503.4996 hectares		
Gross Subdivisible Area	63.1415 hectares		
Public Open Space @ 10%	6.3142 hectares		
Quantity of Public Open Space	Activated Regional Open Space	Public Open Space	Total
	8.9216 hectares	8.2730 hectares	17.1946 hectares
Public Open Space Provision	27.23% or 10.8805 hectares OVER provision		
Quality of Public Open Space	The residential area of Woorree is relatively small and is currently an adjunct to Strathalbyn to the west. The provision of public open space is good with a range of both active and passive recreational facilities.		
Distance of Public Open Space	The residential area is covered by walkable catchments to existing facilities (including within the Strathalbyn locality adjacent). The Chapman River to the north and east is a significant focus for the locality.		
Comments	Woorree consists of district and regional facilities, although the public open space areas are not central to the residential area. It is well over its 10% requirement however much of this is attributed to the activated regional open psace.		
Recommendations	No further areas of public open space should be provided (other than those identified) with a preference for cash-in-lieu. Generating funds to develop the existing open spaces should be the priority.		

APPENDIX 1 – Guidelines for the Preparation of Foreshore/Conservation Management Plans



City of
Greater Geraldton
a vibrant future



Guidelines for the Preparation of Foreshore / Conservation Management Plans



April 2013

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

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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.



Greenough River



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



African boxthorn Lycium ferocissimum



Fountain grass Pennisetum setaceum



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 Yamatji 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 Yamatji 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 <<http://www.heritage.wa.gov.au>>.

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 peri-urban 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.

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

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

- | | |
|--------------------------|--|
| <input type="checkbox"/> | <p>1. Introduction
Site location; land tenure; area and scope; management commitment</p> |
| <input type="checkbox"/> | <p>2. Background
Literature review; legislative and policy framework; planning context</p> |
| <input type="checkbox"/> | <p>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.</p> |
| <input type="checkbox"/> | <p>4. Management Issues
Loss of biodiversity and habitat
Invasive species
Access
Change in hydrological processes
Erosion
Conflicting recreational uses
Climate change</p> |
| <input type="checkbox"/> | <p>5. Opportunities
Improved condition, access, educational experiences, links with range of stakeholders user groups.</p> |
| <input type="checkbox"/> | <p>6. Overall design plan
Proposed changes to the area.</p> |
| <input type="checkbox"/> | <p>7. Management Actions & Implementation Schedule – tables and figures. Including methodology and a monitoring, evaluation, reporting and improvement framework consistent with the CGG's requirements.</p> |
| <input type="checkbox"/> | <p>8. MERI framework, or other published monitoring and evaluation methodology, including standardised methods for condition assessments.</p> |
| <input type="checkbox"/> | <p>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.</p> |

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 Communities 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.

Ecoscope, (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 Geraldton.

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

National Vegetation Information System (NVIS) (Natural Heritage Trust 2003). Found on world wide web <<http://www.environment.gov.au/erin/nvis/about.html>>. 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/default.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?q=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*.

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

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

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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 *Phytophthora 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 2 – Public Open Space Locality Maps