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SHIRE OF IRWIN

PUBLIC OPEN SPACE STRATEGY



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Table of Contents

1.0 Introduction 1
1.1 Purpose 1
1.2 Policy & Context 1
1.2.1 WAPC Policy DC 2.3 – Public Open Space Areas in Residential Areas 1
1.2.2 Liveable Neighbourhoods 3
1.2.3 SPP No. 2.6 State Coastal Planning Policy 5
1.2.4 WAPC Development Control Policy No. 6.1- Country Coastal Planning Policy 5
1.2.5 State Planning Policy No. 2.9 – Water Resources 6
1.2.6 SPP No. 2 Environment and Natural Resources Policy 7
1.2.7 Shire of Irwin Local Planning Strategy 7
2.0 Open Space Provision and Classification 8
3.0 Local and neighbourhood Parks 9
4.0 Organised Sporting Club Areas 12
5.0 Foreshore Reserve Areas 14
5.1 Extent of Foreshore Reserves 14
5.2 Environmental Considerations 14
6.0 Future Population and Residential Areas 17
6.1 Settlement Pattern 17
6.2 Population Growth 17
6.3 Tourism 20
7.0 Open Space Strategy 21
7.1 Shire Policy 21
7.2 Open Space Strategic Objectives 21
7.3 Adequacy of current public open space provision 21
8.0 Summary of Findings and recommendations 27
Open Space Schedule 30

List of Figures

Figure 1: Local and Neighbourhood Parks 11
Figure 2: Sporting Clubs Areas 13
Figure 3: Foreshore Reserve Areas 16
Figure 4: Public Open Space Strategy 24

List of Tables

Table 1 Existing Local and Neighbourhood Parks 9
Table 2 Existing Sporting Club Areas 12
Table 3 Existing Foreshore Reserves 15
Table 4 Estimated Population Growth 17
Table 5: Inventory of Public Open Space 22

1.0 INTRODUCTION

1.1 Purpose

This Strategy applies to the Dongara/Port Denison area in the Shire of Irwin.

The purpose of the Strategy is to establish the adequacy of the current provision and distribution of public open space and as a result provide a framework for the future, based upon the future growth of Dongara/Port Denison.

The Strategy also serves to enable Council to consider either a rationalisation of current open space, if areas are considered surplus to requirements, or alternatively to consider a need for additional facilities, if areas are considered to be under resourced.

1.2 Policy & Context

The provision of public open space in urban areas is informed by the following:

WAPC Policy D.C. 2.3 – Public Open Space in Residential Areas

WAPC Policy D.C. 6.1 – Coastal Planning in Country Areas

Liveable Neighbourhoods

Because much of the open space in the study area comprise coastal and foreshore reserves the following WAPC Policies are also relevant:

- State Planning Policy 2.6 – State Coastal Policy
- State Planning Policy 2.9 – Water Resources
- WAPC Natural Environment Policy
- Shire of Irwin – Local Shire Planning Strategy

1.2.1 WAPC Policy DC 2.3 – Public Open Space Areas in Residential Areas

The basic component of this policy is for 10% of gross subdivisable area to be given up free of cost as a condition of subdivision.

The policy objectives are:

- To ensure that all residential development in the State is complemented by adequate, well-located areas of public open space that will enhance the amenity of the development and provide for the recreational needs of local residents;

- In appropriate cases, to facilitate the provision of land for community facilities - such as community centres, branch libraries and day-care centres – in conjunction with land ceded for public open space; and

- To protect and conserve the margins of wetlands, water-courses and the foreshores adjacent to residential development.

General Requirements

The 10 per cent requirement is derived from the recommendations contained in the Stephenson-Hepburn Plan. That report states that for most areas a standard of 3.36 hectares per 1,000 population (excluding school playing fields) is recommended as sufficient for public open space. On the basis of a uniform density of 30 persons per hectare, a standard contribution of 10 percent of the gross residential area for public open space has been applied since 1956. This requirement remains valid, as gross residential densities have remained much the same since that time, with smaller lot sizes being offset by declining household occupancies.

In terms of the location and distribution of public open space, the Commission favours an overall balance between incidental open space, readily accessible to all residents, and recreational open space in larger units suitable for active leisure pursuits. In this regard it will seek the advice and comment of the relevant local government. It will also seek local government advice upon the suitability in physical terms of land shown upon plans of proposed subdivision for development as open space.

Foreshore Reserves

The Commission may require provision of a foreshore reserve where a subdivision includes land abutting a watercourse (e.g. river or creek) or body of water (e.g. lake or the sea).

The required width of a foreshore or coastal reserve varies according to the size of the watercourse or body of water and the condition of its banks, shore or coastline. As a general rule in the case of river or lake foreshores, a reserve of 30 metres width is required, but each application is examined in detail. Where, for topographical or other reasons, such as protection of a floodway, a greater or lesser width is considered necessary or desirable in the public interest, such a width may be specified. In the case of a coastal reservation, the Commission will apply the principles contained in its coastal planning policy (DC 6.1) with a guideline width of 100 metres.

Public Utility Uses

The Commission’s general practice is that up to 100 per cent of compensating basins may be credited towards the public open space requirement where the land is not subject to permanent inundation provided it is contoured, unfenced and fully usable for recreation purposes. Up to 50 per cent may be credited in other circumstances subject to the advice of local government.

Community Facilities

Closely allied to the provision of public open space is the allocation of sites for community facilities such as community centres, meeting halls, branch libraries and kindergartens, preschools and day-care centres. The Commission accepts that there may be circumstances where the 10 per cent proportion of public open space within a subdivision may, at the request of a local government, be reduced provided that land equivalent in area to the reduction is made available free of cost to the local government as a community facilities site.

1.2.2 Liveable Neighbourhoods

Liveable Neighbourhoods identifies three types of public parkland:

- **Regional Open Space** as defined under a regional or sub-regional structure plan and/or included in a region scheme and set aside for acquisition. Regional open space should accommodate active and passive recreation such as major playing fields as well as conservation and environmental features;
- **Foreshore reserves** which are contributed free of cost by the owner through the subdivision process (eg. land abutting a river, creek, lake or coast); and
- **Public open space** which is contributed free of cost by the owner through the subdivision process (eg. district park, neighbourhood park, local park, special purpose parks, playing fields, community purpose sites).

The policy sets out the requirements of the WAPC for foreshore reserves and public open space and provision of land for community facilities in urban areas.

The WAPC favours a balanced provision of open space, with a range of open space types being provided to meet the needs of all users and age groups, particularly the young.

Linear open space is generally supported along valleys, rivers, creeks and regional flood paths, to retain key landform and urban water management elements. Linear public open space with pedestrian and cycling networks separate from the street system will only be supported where matters of surveillance and personal safety has been duly considered and resolved and where there is adequate allocation of land for the full range of park types in the structure plan area.

Public parkland should be overlooked by development rather than backed onto by development, highlighting the need for appropriate edge treatments (ie public roads, pathways, visually permeable fencing and lighting).

Liveable Neighbourhoods also favours a balance between neighbourhood and local parks (readily accessible to residents) and district playing fields (to be shared between neighbourhoods). Small local parks or special purpose parks (up to 3000m2) are encouraged for local children's play, for identity and sense of place, and as resting places for the elderly or disabled people in appropriate circumstances. The WAPC will be guided by local government, particularly on matters relating to the size and distribution of public open space, landscape design and park maintenance arrangements.

The minimum contribution of 10% gross subdividable area for public open space must comprise a minimum of 8% active passive recreational purposes whereas the remaining 2% may be set aside for:

- Natural areas and cultural features;
- Urban water management measures such as swales and/or detention areas;
- Artificial lakes/permanent drainage ponds; and
- Natural Wetlands.

Foreshore reserves are to be calculated in accordance with the principles of SPP 2.6 in relation to land abutting the coast and SPP 2.9 in relation to land abutting water bodies. Foreshore reserves are to be ceded free of cost and are additional to the 10% requirement.

A hierarchy of public open space is provided as follows:

- **Local Parks** – up to 3000m^2 are recommended with a range of 150 – 300 metres of safe walking distance to all dwellings;
- **Neighbourhood Parks** – 3000m² - 5000m² or larger with a maximum walking distance of 400 metres to its neighbourhood catchment; and
- **District Parks and/or Open Space** – 2.5-7 ha servicing 3 neighbourhood catchments, between 600m and 1km walk from most dwellings. District parks must be of adequate size and shape to accommodate both grassed areas for informal games and for organised sport.

Liveable Neighbourhoods (WAPC 2007) makes specific provisions for regional variations. Under Public Parkland R34 it states:

> *'Subject to the support of the local government, the WAPC may accept a public open space contribution to a minimum of 5% of the gross subdivisible area providing:*
>
> - *The public open space is designed, developed and located for the widest possible use of the community, including meeting, recreation, leisure and entertainment;*
> - *The public open space is developed to a minimum standard including all earthworks, basic reticulation, grassing of key areas, pathways that form part of the overall pedestrian and/or cycle network and maintenance for two summers, in accordance with a landscape plan approved by the local government;*
> - *Adequate areas are provided elsewhere for drainage and flooding, particularly overland flow;*
> - *Public open space is readily available in the community that can be used at all hours of the day or night; and*
> - *Does not include any restricted use public open space.*

1.2.3 SPP No. 2.6 State Coastal Planning Policy

The objectives of SPP 2.6 are to:

- protect, conserve and enhance coastal values, particularly in areas of landscape, nature conservation, indigenous and cultural significance;
- provide for public foreshore areas and access to these on the coast;
- ensure the identification of appropriate areas for the sustainable use of the coast for housing, tourism, recreation, ocean access, maritime industry, commercial and other activities; and
- ensure that the location of coastal facilities and development takes into account coastal processes including erosion, accretion, storm surge, tides, wave conditions, sea level change and biophysical criteria.

In relation to the setting aside of Coastal Foreshore reserves, the planning process should ensure the identification of land to be set aside for public ownership for conservation, management, public access and recreation is undertaken.

Generally this land, from the total setback line seaward, should be given up free of cost, over and above the required provision of public open space.

Coastal foreshore reserves should take into account consideration of ecological values, landscape, seascape, visual amenity, indigenous and cultural heritage, public access, public recreation needs and safety to lives and property.

Schedule 1 of the policy provides guidelines for the determining of appropriate setbacks to accommodate coastal processes.

1.2.4 WAPC Development Control Policy No. 6.1- Country Coastal Planning Policy

The objectives of the policy are:

- To encourage orderly and balanced development on and adjacent to the coast consistent with the protection of coastal resources;
- To protect, conserve and enhance, as appropriate, coastal resources; and
- To permit public access to the coast consistent with the protection of coastal resources.

Land Use Priorities

Some uses are beyond the ability of planners to alter. Unique natural and scenic areas with potential to attract tourists, and mineral deposits with potential for economic gain occur on the coast. Such areas are developed or conserved in response to social and economic forces. The Commission has adopted the following principles for the allocation of coastal land:

To give priority to coastal dependent developments over non-coastal dependent developments, i.e. uses of land and water that by their very nature require coastal sites.

Urban and built developments will normally be ordered as follows:

- Essential services, e.g. ports, harbour, sand marine industries;
- Service facilities dictated by topographic constraints, e.g. drains, wastewater treatment plants and water supply tanks;
- Public recreation and amenity;
- Private residential; and
- General industrial and commercial.

The following should be taken into account in planning development:

- Ecology of the coast line;
- Visual amenity;
- Land preservation – a minimum setback of 100 metres measured from the permanent vegetation line is regarded as a guideline plus any recession of the coast foreshore over a 100 year time frame;
    - estuarine setbacks – development to be above 100 year flood level (a 50 metre setback is commonly used for foreshore reserves)

- Soil Protection;
- Water Quality;
- Pedestrian access – fenced walkways should be provided to link coastal car parks etc; and
- Roads and parking.

1.2.5 State Planning Policy No. 2.9 – Water Resources

The objectives of SPP No. 2.9 are to:

1. protect, conserve and enhance water resources that are identified as having significant economic, social, cultural and/or environmental values;
2. assist in ensuring the availability of suitable water resources to maintain essential requirements for human and all other biological life with attention to maintaining or improving the quality and quantity of water resources; and
3. promote and assist in the management and sustainable use of water resources.

Water Resources include surface and ground water resources, wetlands, waterways and estuaries.

Schedule 2 of SPP No. 2.9 provides guidelines for determining appropriate buffering of waterways and estuaries. Existing mechanisms for identifying foreshore management and protection areas are generally based on a foreshore reserve width of 30 metres from waterways (WAPC Development Control Policy 2.3). Both the waterway reserve and estuary setback policies include the opportunities for flexibility (for reasons of topography, condition of banks or floodway protection).

1.2.6 SPP No. 2 Environment and Natural Resources Policy

This policy defines and incorporates environmental issues and the principle of resource management into the state planning process. The objectives of the policy are:-

- To integrate the wider economic, social and environmental implications of both long and short–term planning decisions and actions, while acknowledging the inherent difficulty in balancing conflicting needs;

- To protect, conserve and enhance natural resources and the environment, taking account of the natural variability of ecosystems, so that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations; and

- To promote and assist in the wise and sustainable use of natural resources.

Policy measures are defined for the following areas:-

- General
- Water resources
- Air quality
- Soil and land quality
- Biodiversity
- Agricultural Land and Rangelands
- Minerals, Petroleum and basic Raw materials
- Landscapes
- Greenhouse Gas Emissions and Energy Efficiency

The measures for implementing the policy will be through the preparation of Local Planning Strategies, Regional and Statutory Schemes, conservation and management strategies and other relevant plans in addition to consideration of its provisions in the statutory planning process.

1.2.7 Shire of Irwin Local Planning Strategy

The Shire's Local Planning Strategy 2008 provides some background information on public open space in the Shire but no detailed analysis was undertaken to establish the adequacy of the current open space provision in the Shire, nor any guidance as to the future provision of open space other than in accordance with the Western Australian Planning Commission's standard provision for 10% of future urban areas to be set aside for Public Open Space.

Large areas of ocean foreshore are available and the Shire has provided facilities at these sites. The main beach recreation area is adjacent to the Port Denison Small Boat Harbour and this area is continually being upgraded. The Shire will continue to progress the obtaining of a River Reserve to be held in public ownership for the Irwin River from the Pell Bridge to the river mouth. This will be of enormous benefit to future generations.

Other provisions in the Shire's Local Planning Scheme No. 5 and the Shire's policy variously serve to protect areas of environmental sensitivity as well as remnant vegetation and wetland areas

2.0 OPEN SPACE PROVISION AND CLASSIFICATION

Within the above context, an examination of the current provision of Open Space and its distribution for the Dongara/Port Denison area has been undertaken. Thirty six open space areas have been identified.

Open Space areas have been categorised as either:

1. Local/Neighbourhood Parks – open to the public and located conveniently within residential areas for use primarily by nearby residents or for site specific requirements (24 sites see Figure 1).
2. Sporting Club Areas – generally patronised by organised recreational/social clubs (6 sites see Figure 2); and
3. Foreshore Reserve Areas – made up of both coastal and river foreshore areas, with recreational areas generally confined to nodes and connecting paths (6 sites see Figure 3).

In accordance with the hierarchy described in Liveable Neighbourhoods, public open space is made up of a combination of Local, Neighbourhood and District parks. The relationship of the above categories to this hierarchy is explained below.

Local and Neighbourhood parks, in the Dongara/Denison context, can be difficult to distinguish between in terms of their role in the hierarchy. This strategy therefore nominates selected existing parks as Neighbourhood parks, and recommends specific actions for each to serve this function. The remaining Category 1 parks act as Local Parks.

The District park role is generally performed by the Sporting Club Areas. This strategy identifies specific Sporting Club Areas as District parks.

The Foreshore Reserve Areas, which feature prominently in the Dongara/Denison urban area, are in addition to the public open space parks. This strategy identifies the important role these areas play in the overall provision of public parkland for Dongara/Denison.

3.0 LOCAL AND NEIGHBOURHOOD PARKS

There are a number of Local and Neighbourhood parks within the urban area (See Table 1 and Figure 1).

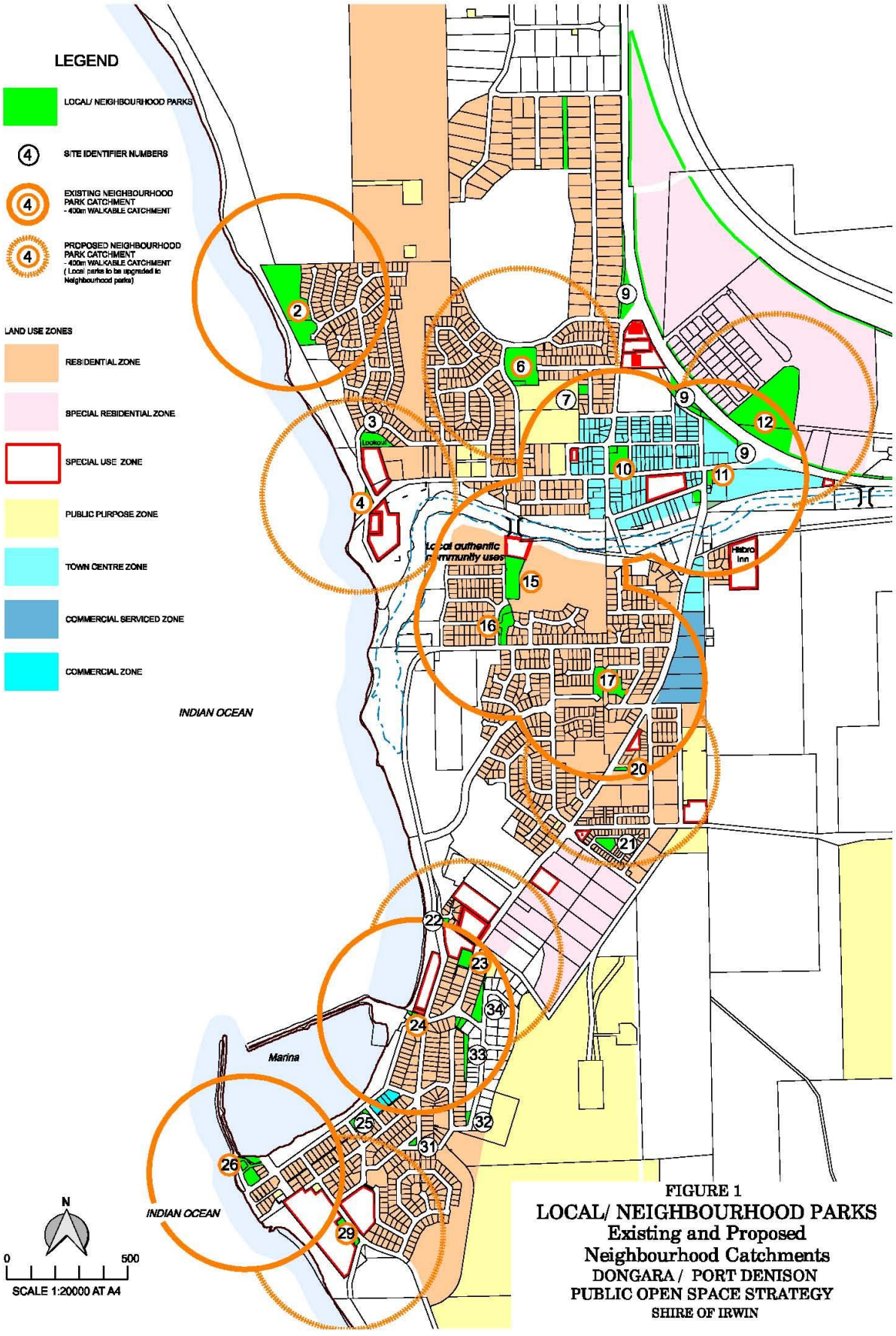
Those indicated thus * have been identified as existing, or require upgrading to, Neighbourhood parks. This generally refers to those parks that are larger, more accessible and have been (or are to be) developed with site appropriate facilities. Neighbourhood parks, both existing and proposed, are shown on Figure 1 with a 400 metre radius indicating their walkable catchment.

Table 1 Existing Local and Neighbourhood Parks

No. on Map	Description
2*	Northshore – includes children's playground, reticulated turf, public seating, good access.
3	Brady Road – undeveloped, suitable location for a lookout, Kailis development to provide POS cash-in-lieu for its future development.
4 *	Seaspray – Good access, coastal location, existing public conveniences.
6*	Pickering Drive – Treed parkland, grass, no reticulation.
7	Scott Road - Drainage, trees, grass, no reticulation.
9	Brand Highway - Landscape buffer; trees/shrubs, grass.
10*	Town Park – Includes children's playground, gazebo, public conveniences, reticulated turf, good access, and community purpose buildings (Dongara Rag Office, Pottery Club, Dongara Playgroup)
11*	Memorial Park - Includes war memorial, reticulated turf and gardens, public conveniences, good access.
12 *	Moreton Bay Estate - Drainage and POS combined, trees, grass, no reticulation.
15*	The Retreat (Area 1) - Good quality reticulated turf, public seating, good access, treed parkland.
16*	The Retreat (Area 2) - Drainage and good quality native garden, public seating, good access.
17 *	Canny Place - Childrens playground, trees, grass, no

	reticulation.
20 *	Ayelia Parkway - Drainage, proposed to form part of larger future park when land adjoining to south is subdivided.
21	Bluewater Gardens - Drainage, children's playground, reticulated turf.
22	Marina Hieghts - Garden and reticulated turf.
23 *	Obrien Park - Trees, grass, no reticulation.
24*	Grannys Beach - Children's playground, reticulated turf, shade, shower, public seating, good access.
25	Lots 53 & 54 Point Leander Drive – Trees, grass, no reticulation.
26*	Obelisk and Fisherman's Memorial – Navigation beacon and fisherman's memorial, lookout, staircase, interpretive signage and native garden.
29 *	Cnr George Street and White Tops Road - Part drainage, part vacant.
31	Cnr Hampton Street and Wheelan Street - Native shrubs, grass, no reticulation.
32	Duval Street (southern end)- Landscape buffer; trees/shrubs, grass.
33	Carrol Street - Landscape buffer; trees, grass.
34	Duval Street (northern end) - Landscape buffer; trees and jinker park.

Figure 1: Local and Neighbourhood Parks



4.0 ORGANISED SPORTING CLUB AREAS

The Shire has two main sporting/recreation facilities, being the Dongara Town Oval and the Shire of Irwin Recreation Centre.

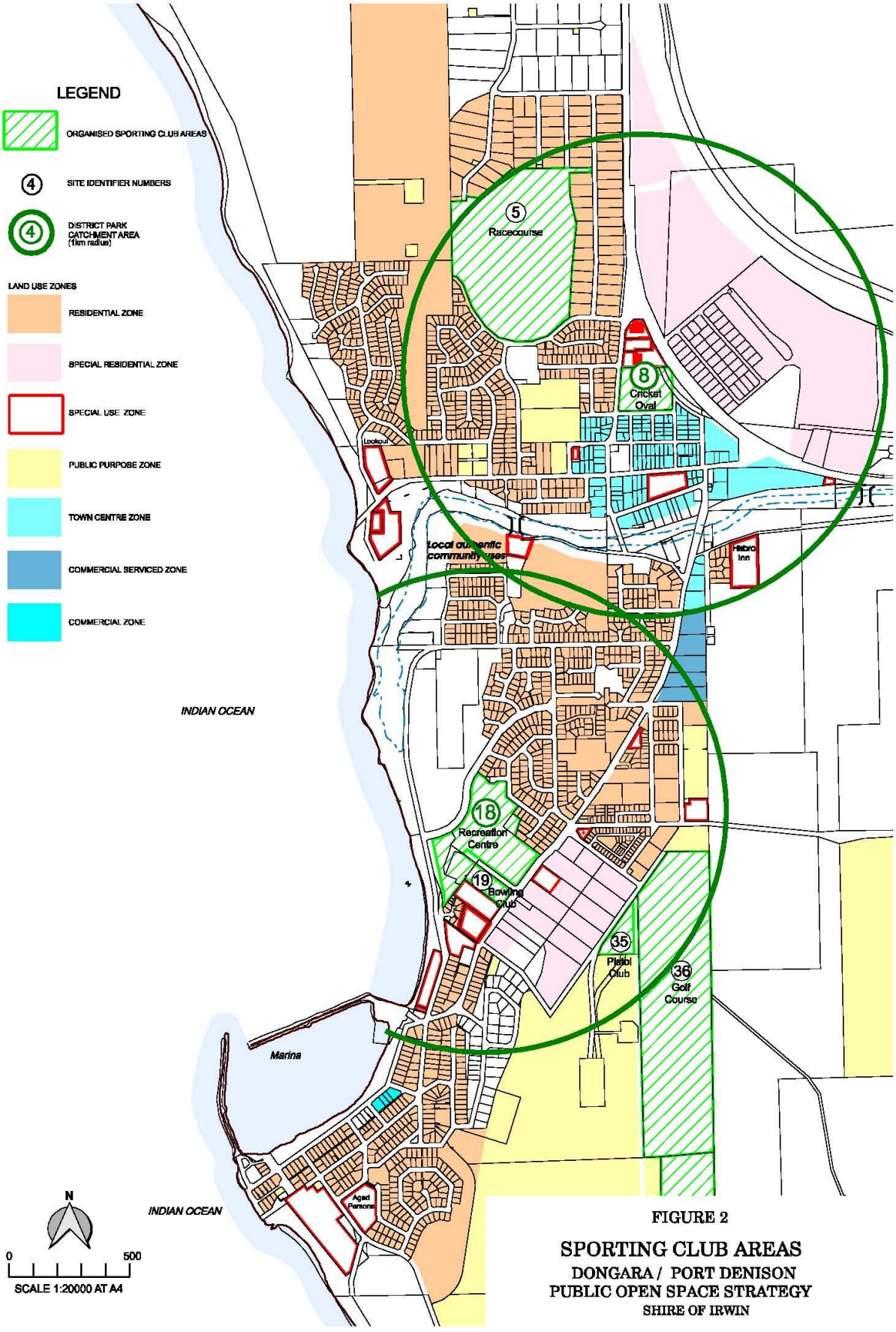
In addition, there is the Dongara Golf Club, the Dongara Pistol Club, the Dongara/Denison Bowling Club and the Dongara Racecourse (See Table 2 and Figure 2).

Those indicated thus * are considered District parks. These are shown on Figure 2 with a 1 kilometre radius indicating their walkable catchment.

Table 2 Existing Sporting Club Areas

No. on Map	Description
5	Racecourse.
8 *	Town Oval - Cricket oval, pitch, nets and pavilion, football goal posts, Scouts shed.
18 *	Recreation Centre - Full indoor facilities including multiple courts, gym, function centre. Plus outdoor facilities including football oval, tennis courts (hard and grassed), netball courts, skate park, BMX track, drive-in theatre and grassed parkland.
19	Bowling club.
26	Pistol club.
27	Golf course (grass greens and some fairways).

Figure 2: Sporting Clubs Areas



5.0 FORESHORE RESERVE AREAS

Complementing the active open space areas are the coastal and river foreshore reserve areas. These reserves are in addition to the standard public open space requirements, however form an important part of the overall public parkland provision. Recreational activity in these areas is confined to recreation nodes, which need to be managed and located so as to avoid environmental damage such as erosion or habitat/vegetation loss and degradation.

5.1 Extent of Foreshore Reserves

An extensive portion of the Dongara/Port Denison area has been set aside as foreshore reserves paralleling the coast and either side of the Irwin River which runs east-west to the south of the Dongara town centre.

The Irwin River reserve is generally 200 metres wide before widening out to approximately 300 metres as it turns southwards and merges with the coastal reserve where it discharges into the ocean.

The coastal reserve, at its widest is 200 metres wide, narrowing to 50-60 metres wide along the Port Denison Boat Harbour foreshore.

5.2 Environmental Considerations

The Coastal zone comprises coastal dune and floodplain deposits of the Swan Coastal Plain which extends 12 kms inland in the north of the Shire to 24kms inland in the south of the Shire.

The Coastal reserves comprises parabolic dunes and the river reserve; alluvial flats.

The pleistocene barrier dune complex which generally forms a backdrop to the above is extent at the western tip of the Port Denison Boat Harbour.

A description of the land form and soils of the foreshore reserve areas are contained in the Shire's Local Planning Strategy, a summary of which is contained in Appendix 1.

Development for recreational purposes needs to be sited sensitively, developed within the constraints of the site and a management programme formulated and adhered to, in particular the management of fire risk.

Historically it has been shown that substantial risk of fire exists in the dense coastal vegetation areas which are highly flammable during periods of hot/dry weather. Fire hazard is created by suitable weather conditions combined with lightening strikes and irresponsible persons lighting fires for any variety of reasons.

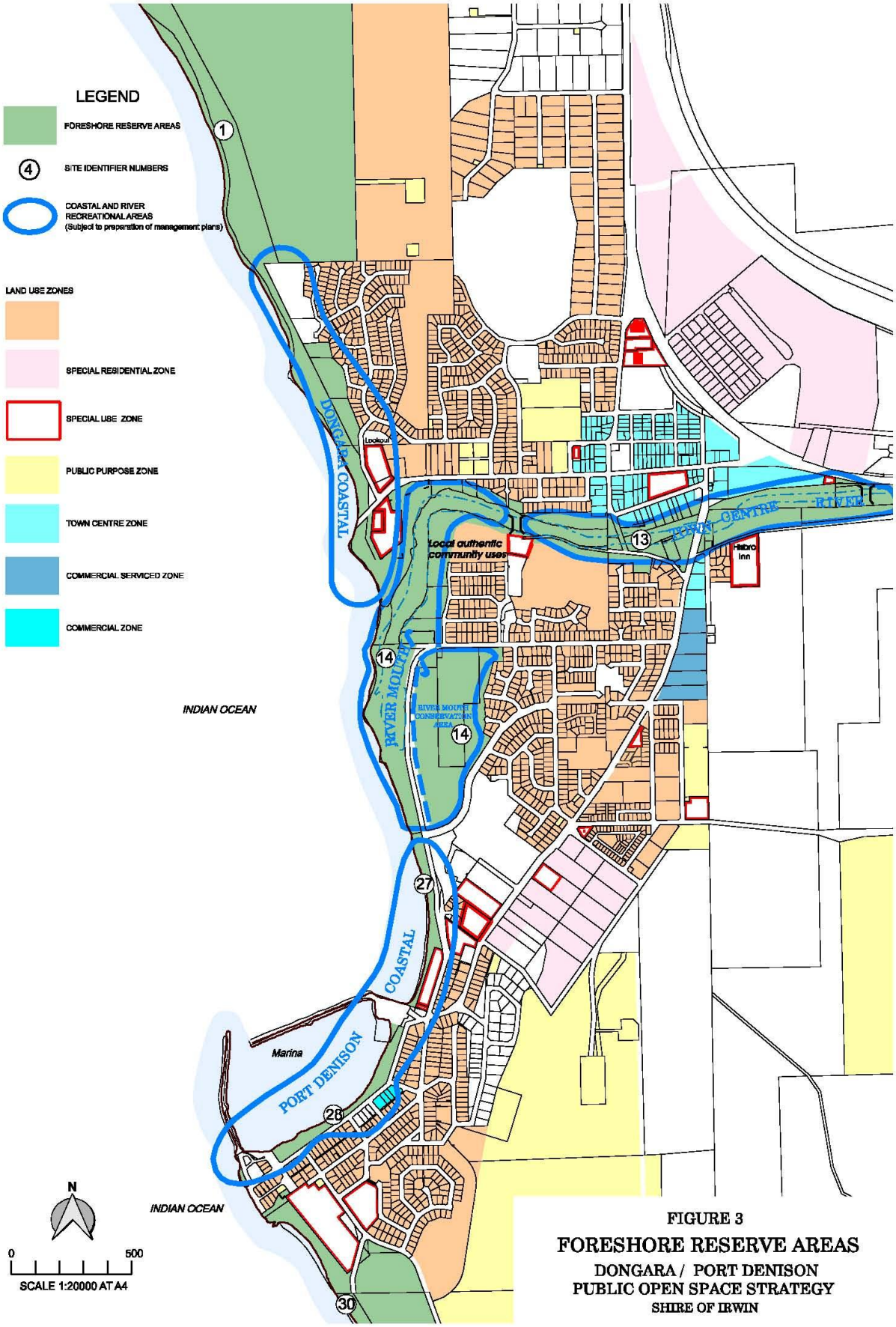
Vehicle access in coastal areas of the Shire has always been recognised as a problem. Measures to limit coastal damage from indiscriminate access should continue to be implemented.

The Dongara/Denison urban area is currently well catered for with coastal and river foreshore reserves areas. These have also already been developed with a high standard or recreation facilities and nodes. (See Figure 3 and Table 3).

Table 3 Existing Foreshore Reserves

Map No.	Description
1	Northshore Coastal - Extends from Church Street holiday/tourist activity node to north of Northshore Estate. Includes beach access and coastal vegetation.
13	Dongara Town Centre River – Includes river access, walk trails.
14	River Estuary – Includes walktrails, boardwalks and staircases, gazebo/bird hide, viewing platform, lookouts and good access.
27	Port Denison Marina - Section immediately north of marina to Richardson Road. Includes dual use path, beach access and coastal vegetation.
28	Port Denison Marina – High level of public amenity including: - Reticulated turf areas and trees; - Shade structures; - Public bbq's; - Public seating; - Children's playgrounds x 4; - Amateur boat ramp; - Fisherman's Hall; - Public conveniences x 2; and - Good access.
30	Point Leander/South Beach – Includes Point Leander cliff walktrail and South Beach and dunes.

Figure 3: Foreshore Reserve Areas



6.0 FUTURE POPULATION AND RESIDENTIAL AREAS

6.1 Settlement Pattern

Historically the pattern of development throughout the Shire of Irwin has been based on the development of the twin towns of Dongara and Port Denison (ie the Dongara/Port Denison Urban Area) and the spread of smaller rural land holdings along the Irwin River (ie generally 10 to 40ha) and the initial road and rail transportation routes which traverse the Shire.

In recent times and as a result of Council's adoption of a Development Strategy for the Dongara/Port Denison Urban Area and the implementation of Shire's Local Rural Strategy via its incorporation within the Shire's District Town Planning Scheme No. 4, it has been the local authority's objective to develop one only major coastal Urban Area in the Shire, namely the Dongara/Port Denison Urban Area.

The original townsite of Irwin which was developed on the Irwin River some 17 kilometres from the coast has no significance as an area of urban development since all land use within the same is of a rural nature albeit on lots of a smaller area to those predominant in the locality.

Research undertaken by the Shire during the compilation of its Development Strategy for the Dongara/Port Denison Urban Area revealed the following population spread:-

- 90% Dongara/Port Denison Urban Area; and
- 10% Rural Based.

6.2 Population Growth

The population figures listed in the Shires' Local Planning Strategy are as follows:

Table 4 Estimated Population Growth
(LPS, 2008).

Year	Estimated Residential Population
1996	2526
2001	3200
2006	3599
2011	3800
2016	3901

These population projections, contained in the then Ministry for Planning's Western Australia Tomorrow (October 2000), are based on a medium growth scenario. The Australian Bureau of Statistics ERP (Estimated Resident Population) for the Shire of Irwin for the years 2001 and 2003 were 3059 and 2993 respectively, suggesting that these predictions may be excessive. However, these projections formed the basis for the Local Planning Strategy. The

2006 ABS Census data forecasts a 2010 population of 3664 which compares favourably with the above estimates from the Shire's LPS.

The Shire was the 4th fastest growing shire in the State in 2000 and it should be noted that there are a number of factors which may over time result in population growth in excess of these projections, including:-

- Current oil and gas extraction activity and potential oil, gas and mineral sands extraction development over the life of the Local Planning Strategy; and

- Increased attractiveness of the Shire of Irwin as a location for tourism development and retirees, particularly with increased accessibility from Perth due to the completion of the Indian Ocean Drive between Lancelin and Cervantes.

The Shire of Irwin also has a significant seasonal population not recognised in the Estimated Resident Population. This includes people, often from farming areas to the south and east, who spend holidays and/or summer months in the Shire, but are resident elsewhere for the majority of the year. Based on census data on the proportion of unoccupied houses, this seasonal population (or "service population") has been estimated at 25% of the Estimated Resident Population. The Local Planning Strategy took the seasonal population into account in its calculation of land requirements.

Accordingly, the Local Planning Strategy is based on the assumption of a resident population of around 4000, plus an additional seasonal population of 1000 within the timespan addressed by the Strategy (15 years). However, resident population is to be monitored and the Department of Planning's updated projections considered when available. If population growth is well in excess of the projections in the strategy, investigations of the urban growth options may need to take place earlier, as dictated by the supply of and demand for residential and other land. Commensurate with this review of residential demand would be a review of public open space – provision and facilities.

A review of the Age Structure Characteristics for the eighteen (18) year period 1981 to 1999 carried out in the Local Planning Strategy illustrates:-

- The percentage of population in the 0-4, 5-14 and 15-19 age group has decreased from 9.1% to 8.8%, 16.5% to 15.2% and 7.8% to 5.0% respectively

- The percentage of population in the 20 to 34 age group has decreased substantially from 31.2% to 20.1 %

- The percentage of population in the 35 to 59 age group has increased substantially from 25.9% to 33.3%

- The percentage of population in the over 60 age group has increased substantially from 9.5% to 17.7%

- In each Census period the status quo is generally retained in the case of Population Counts and location of usual residence, however a significant increase is evidenced in the number of Aboriginal and Torres Strait Islanders living in the Shire and also the lone persons households/one parent families and couple only families.

- Changes in the makeup of the Shire's population, namely an increase in Aboriginal and Torres Strait Island residents and lone person, one parent and couple only households requires that the local authority continue to address the needs of a changing social structure.

- During the 10 year period 1990 - 2000, the Shire experienced a high level of demand for residential lots, which is reflected in the fact that during that period some 561 dwellings were constructed, corresponding to a yearly average of 56 dwellings.

The implications for open space planning from the above forecasts, is that the focus may need to shift to more passive recreational pursuits for permanent residents.

In terms of forecast growth:

- The 1999-2000 Financial Year revealed a new dwelling construction rate of 71. Since then new dwellings have averaged 31 new dwellings/annum.

- In catering for the above mentioned dwelling construction rate, in the same period above, some 78 subdivisions were completed, which has resulted in the production of 1,117 new lots, both residential and rural residential.

- The Strategy caters for a further approximate lot yield as follows:-

– General Farming (based on Local Rural Strategy)	550 lots
– Existing Zoned Residential Land (under Shire of Irwin Town Planning Scheme No. 4)	1675 lots
– Rural Residential (existing and proposed via the	
– Local Rural Strategy)	720 lots
– Land in close proximity to Urban Zones Policy Area B – Possible future residential – 497ha x 9 lots/ha – R15 Average)	4500 lots
TOTAL LOT POTENTIAL (Whole Shire):	7445 lots
	=======

- It is suggested that the population growth trend when related to an expanded Dongara/Port Denison Urban Area as proposed by Council in its Development Strategy and the subdivision potential which is possible in the Shire's rural areas via the Local Rural Strategy will not alter the urban/rural ratio to any great extent.

As approvals to new subdivision will be conditional upon a 10% public open space contribution, the quality and distribution of public open space in the future will be adequate at a local and neighbourhood level. District recreational centres will however need to be upgraded, or new areas created, to meet increased demand.

6.3 Tourism

The Shire recognises that its coastal geomorphic location is attractive to tourists and regional visitors, and actively encourages and supports the increasing role tourists play in the economic well being of the area.

With Dongara/Port Denison being located approximately three and half (3½) hours from Perth it is, and will continue to be, an attraction in its own right.

The Port Denison Small Boat Harbour with its safe recreational boat launching facilities is very popular with recreational fishing tourists.

The pristine beaches, for all water activities, are also a drawcard for tourists.

The Irwin River estuary is also an attraction with a number of trails, boardwalks, and bird observation areas installed. These projects have included the protection of the natural environment to give the balance between preservation and human activity.

The rich heritage and the wildflowers in season also are attractions which bring tourists to the area.

At present, Dongara/Port Denison attracts more tourists for stopovers rather than an end destination holiday location.

While it can be reasonably expected that the Shire will remain in a position to provide for its own resident population, there is an ever increasing recognition that proper and responsible facility provision for tourists and regional beach front users will need to be incorporated into the Shire's strategic planning.

The implications for this strategy are that the district parks, and the foreshore areas in particular, will be at most demand from tourist pressures and this needs to be considered in the treatment of these open space areas.

7.0 OPEN SPACE STRATEGY

7.1 Shire Policy

The Dongara/Port Denison area of the Shire falls within Policy Area B in the Shire's Local Planning Scheme for which the objectives are:

Policy Area B

To concentrate urban development within a single urban centre at Dongara/Port Denison to provide an efficient, sustainable settlement pattern within the Shire. To ensure the provision of adequate residential land within the future urban areas that incorporates a range of housing and lifestyle options, whilst making adequate provision for commercial, industrial, recreation and other land to meet the needs of residents, visitors and industry.

Within this context the Council will continue to develop a Public River Foreshore Reserve, when a subdivision occurs between the River Estuary and the Pell Bridge.

7.2 Open Space Strategic Objectives

Consistent with the above, and in accordance with the State Planning Framework the objectives of the Shires' Open Space Strategy are:

1) to ensure the provision of adequate space and facilities for local informal recreation.
2) to ensure the provision of adequate space and facilities for organised recreation within the Dongara/Port Denison area; and
3) to ensure the protection of the coastal and riverine environment in the Dongara /Port Denison area through the responsible and balanced management of the coastal and foreshore reserves in respect to conservation values and human use and enjoyment;

7.3 Adequacy of current public open space provision

This Strategy records the current provision and distribution of public open space in the Dongara/Port Denison area (See Table 5). For this purpose the Dongara/Port Denison area has been divided into four catchment areas (See Figure 4).

In accordance with the Liveable Neighbourhoods hierarchy, public open space has only been calculated using Local, Neighbourhood and District parks. Those Sporting Club Areas which do not perform a District park role and the Foreshore Reserve Areas are not included in the public open space calculations.

Table 5: Inventory of Public Open Space

Northshore			
Site No.	Active (ha)	Passive (ha)	Total
2	0.26	3.58	3.84
3	0.62		0.62
4	0.20		0.20
8 *	0.96		0.96
Total POS	**2.04 ha**	**3.58 ha**	**5.62 ha**
Total Residential Catchment			**35.69 ha**
Total % Open Space/Catchment			**15.7%**

*** NOTE: 25% of Dongara Town Oval is allocated to this catchment.**

Dongara Townsite			
Site No.	Active (ha)	Passive (ha)	Total
6		1.99	1.99
7		0.1621	0.1621
8 *	2.88		2.88
9		0.500	0.500
10	0.90		0.90
11	0.1235		0.1235
Total POS	**3.9035 ha**	**2.6521 ha**	**6.5556 ha**
Total Residential Catchment			**52.7 ha**
Total % Open Space/Catchment			**12.4%**

*** 75% of Dongara Town Oval allocated to this catchment. Assumes 50% of Town Centre Zone is residential. Excludes racecourse special residential area**

NOTE: Excludes POS area to the east of the Highway which forms part of the future development area. POS allocated in this area is 5.75 hectares.

Port Denison – North			
Site No.	Active (ha)	Passive (ha)	Total
15	1.09		
16	0.73		
17	1.23		
18 *	9.0		
20	0.0673		
21	0.29		
Total POS	**12.4073 ha**	**-**	**12.4073 ha**
Total Residential Catchment			**106.58 ha**
Total % Open Space/Catchment			**11.6%**

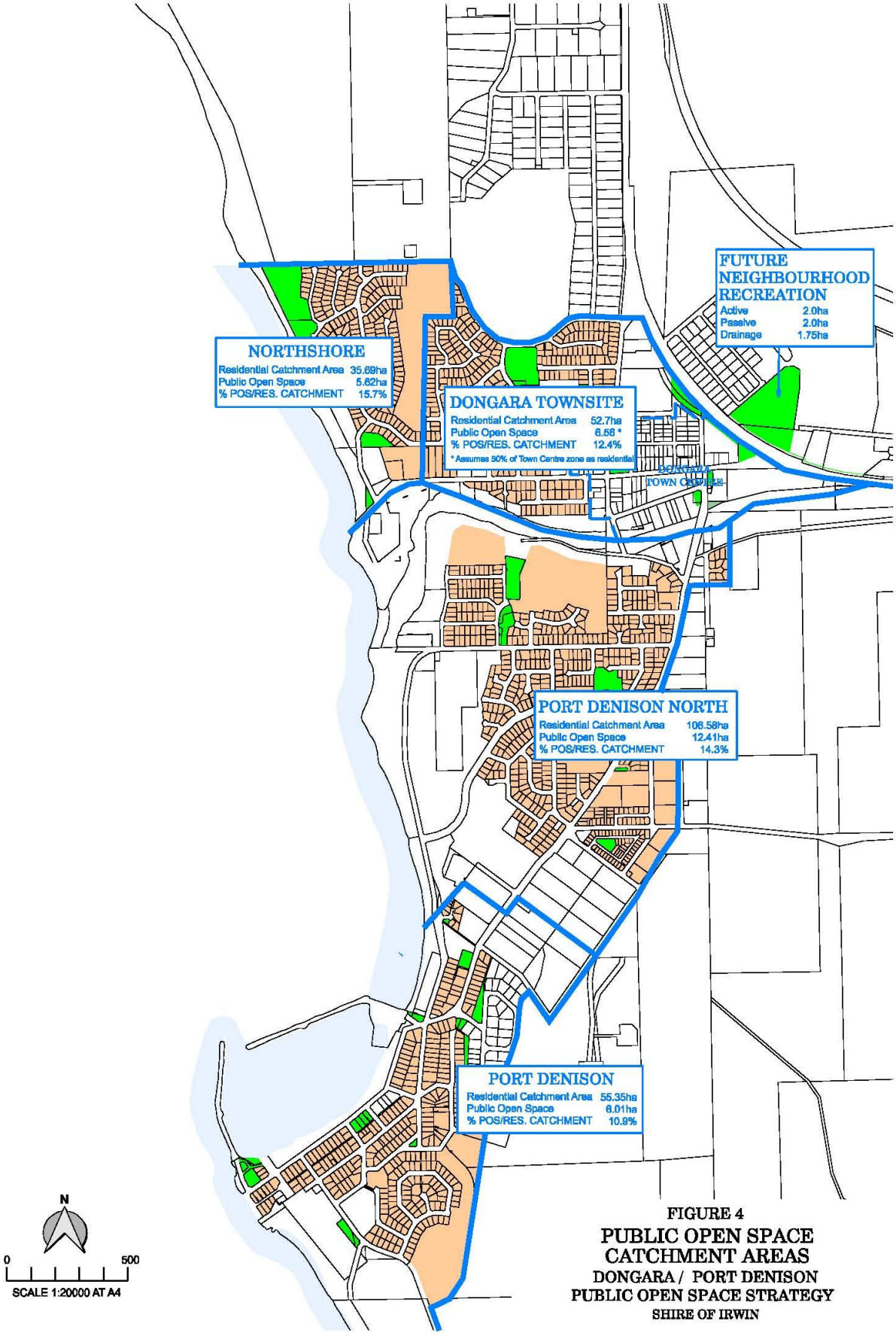
*** NOTE: 75% of Port Denison Recreation Centre is allocated to this catchment.**

Port Denison			
Site No.	Active (ha)	Passive (ha)	Total
18 *	3.3		
22	0.0399		
23	0.34		
24	0.11		
25	0.24		
26	0.5		
29		0.38	
31		0.0682	
32		0.0838	
33		0.47	
34	0.48		
Total POS	**5.0099 ha**	**1.24 ha**	**6.0119 ha**
Total Residential Catchment			**55.35 ha**
Total % Open Space/Catchment			**10.9%**

*** NOTE: 25% of Port Denison Recreation Centre is allocated to this catchment**

TOTAL POS: 29.41 HA
TOTAL RESIDENTIAL CATCHMENT: 250.37 HA
TOTAL % OPEN SPACE/CATCHMENT: 11.7%

Figure 4: Public Open Space Strategy



Open Space Provision

On the basis of 3.36 ha/1000 persons and the estimated current population of Dongara/Port Denison there should be a provision for 11.5 hectares of public open space (assuming 90% of the Shire's population is in the Dongara/Port Denison area) with a possible further 6 hectares needed to be provided should all the conditionally approved and residential zoned lots be developed.

If we assume that tourists add a further 25% to the population during the tourist season it could be necessary at peak periods for a further 3.8 hectares of open space but this can be incorporated in the recreational nodes in the foreshore reserve areas. A total POS provision of 20 hectares should therefore be adequate.

Currently there is a provision of 29.41 ha including the two main district recreational areas but excluding the sporting clubs that are not district parks and the foreshore reserve areas, servicing a gross urban area of 250 hectares.

On an area basis the amount of public open space is 11.7% and accords with the WAPC's requirement for 10% of urban areas to be allocated to public open space and significantly exceeds the requirement based upon population.

To accord with Liveable Neighbourhoods objectives for neighbourhood parks to be within 400 metres walking distance of residences, a number of local parks need to be upgraded to neighbourhood status to achieve maximum access to neighbourhood facilities. Proposed upgrades are indicated in Schedule 1 and on the Strategy map.

Provision for open space has been made in the Local Planning Strategy for future residential areas where, in due course, its development and management will be determined. In particular additional public open space will be needed as Northshore develops and ultimately provision for District parks as the urban front extends northwards and southwards.

Organised Sporting Club Areas

In addition to the public open space parks, the Strategy identifies a number of Sporting Clubs including the bowling club, the golf club, the pistol club and the racecourse. These sporting club areas play an important role is community engagement and inclusion.

Foreshore Reserve Areas

Coastal and river recreational areas have been identified to complement the local, neighbourhood and district parks. These are:

1. Dongara Coastal Foreshore;
2. Town Centre River Foreshore;
3. River Mouth Foreshore; and
4. Port Denison Coastal Foreshore.

It is noted that the Port Denison Marina Foreshore (Site No 28) has been developed to a high public amenity standard. Although this is a coastal foreshore area, it does act as a significant

Neighbourhood park servicing both the local resident population and the tourist population alike.

In regards to the remaining foreshore areas, priority needs to be given to building on and continuing the considerable work that has already been expended on creating a series of passive recreation nodes, linked through a series of walking trails. This is particularly relevant for the Dongara Coastal foreshore area, which will come under pressure when the Kailis development commences and will require some guidance from the Shire.

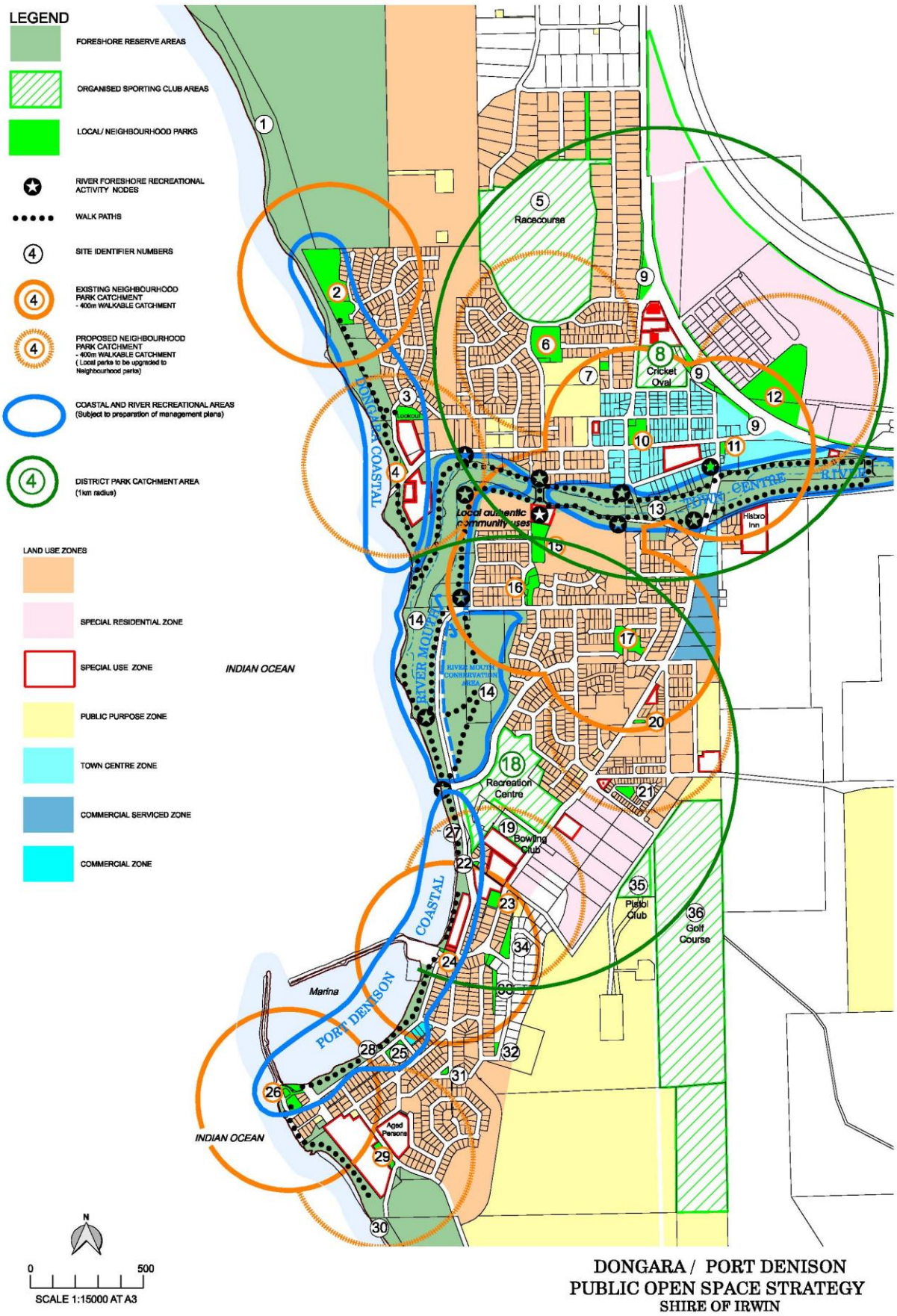
A review of the recreational activity network along the Irwin River foreshore areas is also recommended. The review should consider the river foreshore in two precincts, one abutting the Dongara Town Centre with a civic/tourist focus and the other the River Mouth and environs with a recreation/conservation focus. The former should be planned as an integrated part of the Dongara town centre and reinforce the civic and policy function of the town centre. A possible network and series of nodes (existing and future) planned for the coastal reserves is indicated on the Strategy map. The series of nodes are 400-500 metres apart and are linked by a proposed walk trail.

8.0 SUMMARY OF FINDINGS AND RECOMMENDATIONS

1. The Seaspray park (Site No 4) needs to be upgraded to Neighbourhood park status. This will become more apparent when the adjacent Kailis development on Lots 60 and 70 Brady Road takes place. In this regard the Kailis development requires implementation of a foreshore management plan which will encompass Site No's 3 and 4 and the Shire will need to liaise with the developers in this regard;
2. The Pickering Drive park (Site No 6) needs to be upgraded to Neighbourhood Park status. This could incorporate some children's play equipment considering the limited provision of these facilities in the area, however large grassed areas are not recommended due to its proximity to the school and its existing playing fields;
3. Consideration should be given to the rezoning of the Scott Road park (Site No 7) to residential. This Local Park appears to be surplus to requirements, particularly if Site No 6 is upgraded as per Point 2 above;
4. Consideration should be given to the relocation of the information bay to within the landscaped buffer opposite the cricket oval at Site No 9. Its location adjacent the highway and proximity to the Town Centre lends itself to this type of development rather than recreation;
5. The Moreton Bay Estate park (Site No 12) needs to be upgraded to Neighbourhood Park status. This is already planned for and will take place in conjunction with the staged subdivision of the surrounding Special Residential zoned land;
6. The Ayelia Parkway reserve (Site No 20) needs to be upgraded to Neighbourhood park status. This is already planned for in conjunction with the subdivision of the adjoining land to the south which will add additional area to this park;
7. The Bluewater Gardens park (Site No 21) remains as a Local Park, despite its size and facilities, on the basis of its limited access;
8. Site No's 23 (Obrien Park) and 29 (cnr George St and White Tops Rd) in Port Denison should be upgraded to Neighbourhood park status. Although it is acknowledged that the Marina foreshore already plays a significant Neighbourhood park role in this area, these sites are important to the overall distribution of Neighbourhood parks in the Port Denison area;
9. The Town Oval operates as the main District Park for the urban area north of the Irwin River. This needs to continue and be acknowledged in future public open space planning;
10. The Irwin Recreation Centre acts as the District Park for the Port Denison urban area;
11. The Irwin Recreation Centre with its recent upgrades and provision of substantial facilities means that it also supports a much wider area encompassing the whole urban area, the Shire and surrounding districts, therefore performing a higher order District Park role. This needs to continue and be acknowledged in future public open space planning;
12. Future lower order District parks will need to be provided both to the south and to the north of the current urban extent, as and when the urban area expands;
13. The strategy indicates that the Dongara/Denison urban area is already, and in accordance with the recommendations of this strategy will continue to be, well served by Local, Neighbourhood and District parks;

14. Management of the Irwin River foreshore areas need to be reviewed in order to build on and continue the considerable work that has already taken place in creating walk trails and passive recreation nodes. This should consider the river foreshore in two precincts, the Town Centre River Foreshore and the River Mouth Foreshore;
15. The Port Denison Marina foreshore has been developed to a high public amenity standard and serves an important purpose beyond merely coastal reserve and acts as a neighbourhood park and as a tourist attraction;
16. The Port Denison Marina foreshore is in need of a commercial holiday/tourist support node. Site No 25, being freehold Lots 53 and 54 Point Leander Dr are ideally located for this role and should be developed accordingly. Development of these lots as a Local Park is surplus to requirements, particularly considering the high standard of recreation facilities on the adjacent foreshore;
17. Consideration should be given to formalising a walk trail along the Point Leander cliff between the obelisk and South Beach; and
18. Preparation of the strategy has revealed that three separate lots being;
    - Lot 76 (No 11) Criddle Street;
    - Lot 23 (No 10) Dodd Street; and
    - Lot 8 (No 3) St Dominics Road

    have been created as reserves or section 20A titles under the previous planning act. These lots have already been identified as surplus to public open space requirements as all are currently zoned for residential development under the Shire's Local Planning Scheme No 5. Consideration should be given to transferring these lots to freehold titles to allow for their development.


LEGEND
FORESHORE RESERVE AREAS
ORGANISED SPORTING CLUB AREAS
LOCAL/ NEIGHBOURHOOD PARKS
RIVER FORESHORE RECREATIONAL ACTIVITY NODES
WALK PATHS
SITE IDENTIFIER NUMBERS
EXISTING NEIGHBOURHOOD PARK CATCHMENT - 400m WALKABLE CATCHMENT
PROPOSED NEIGHBOURHOOD PARK CATCHMENT - 400m WALKABLE CATCHMENT (Local parks to be upgraded to Neighbourhood parks)
COASTAL AND RIVER RECREATIONAL AREAS (Subject to preparation of management plans)
DISTRICT PARK CATCHMENT AREA (1km radius)
LAND USE ZONES
SPECIAL RESIDENTIAL ZONE
SPECIAL USE ZONE
PUBLIC PURPOSE ZONE
TOWN CENTRE ZONE
COMMERCIAL SERVICED ZONE
COMMERCIAL ZONE
INDIAN OCEAN
Racecourse
Cricket Oval
Lookout
Local authentic community uses
Hisbro Inn
Recreation Centre
Bowling Club
Pistol Club
Golf Course
Marina
Aged Persons
DONGARA COASTAL
RIVER MOUTH
RIVER MOUTH CONSERVATION AREA
TOWN CENTRE
RIVER
COASTAL
PORT DENISON
INDIAN OCEAN
N
0
500
SCALE 1:15000 AT A3
DONGARA / PORT DENISON
PUBLIC OPEN SPACE STRATEGY
SHIRE OF IRWIN

OPEN SPACE SCHEDULE

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 1.

Local/Neighbourhood	
Organised Sport	
Foreshore Reserve	X

Description: Foreshore Reserve – Seaspray to Northshore
Role: Beach access and landscape conservation .
Facilities: Confined to Activity Nodes (See 2, 3 and 4).

Image:



Requirements:

- Foreshore Management Plan needs to be prepared incorporating proposed Site No's 3 and 4 in conjunction with the proposed Kailis development (see recommendation 1).
- Control 4wd/offroad access.

Priority: Medium.

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 2

Local/Neighbourhood	X 3.84 ha
Organised Sport	
Foreshore Reserve	

Description: Northshore park
Role: Neighbourhood park (recreation)
Facilities: Children's playground, reticulated turf, public seating, good access

Image:



Requirements:

- Current facilities adequate.

Priority: Maintain as current.

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 3.

Local/Neighbourhood	X 0.62 ha
Organised Sport	
Foreshore Reserve	

Description: Brady Road reserve
Role: Local Park (recreation)
Facilities: Undeveloped

Image:



Requirements:

- Kailis development to provide POS cash-in-lieu for this park.
- To be incorporated in Foreshore Management Plan for this area in conjunction with the proposed Kailis development. Possible lookout, walk trail. Maintain vegetation cover due to fragile, exposed location.

Priority: Medium.

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 4.

Local/Neighbourhood	X 0.20 ha
Organised Sport	
Foreshore Reserve	

Description: Seaspray reserve
Role: Local Park (recreation)
Facilities: Public conveniences, good access

Image:



Requirements:

- To be upgraded to Neighbourhood Park as part of Foreshore Management Plan for this area, in conjunction with the proposed Kailis development opposite.
- Potential for children's play equipment, possible bbq and shade structure.

Priority Medium

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 5.

Local/Neighbourhood	
Organised Sport	X
Foreshore Reserve	

Description: Dongara Race Course
Role: Private Sporting Club
Facilities: Racecourse

Image:



Requirements:

- Maintained and administered by Dongara Race Club.
- No change required/proposed.

Priority Maintain as current

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 6.

Local/Neighbourhood	X 1.99 ha
Organised Sport	
Foreshore Reserve	

Description: Pickering Drive park
Role: Local Park (recreation)
Facilities: Treed parkland, grass, no reticulation

Image:



Requirements:

- To be upgraded to Neighbourhood Park incorporating children's play equipment.
- No requirement for large grassed area given proximity to school playing fields.

Priority: Medium

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 7.

Local/Neighbourhood	X 0.1621 ha
Organised Sport	
Foreshore Reserve	

Description: Scott Street park
Role: Local Park (recreation and drainage)
Facilities: Drainage, trees, grass, no reticulation

Image:



Requirements:

- Appears to be surplus to requirements
- Difficult to maintain
- Consider rezoning to residential

Priority Medium.

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 8.

Local/Neighbourhood	
Organised Sport	X 3.84 ha
Foreshore Reserve	

Description: Town Oval.
Role: District Park (public sporting venue)
Facilities Cricket oval, pitch, nets and pavilion, football goal posts, Scouts shed

Image:



Requirements:
- Serves current requirements.

Priority: Continue to Maintain.

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEME

Identification No: 9.

Local/Neighbourhood	0.5000 ha
Organised Sport	
Foreshore Reserve	

Description: Brand Highway landscaping
Role: Local Park (town entry and landscape buffer)
Facilities: Entry statement, trees/shrubs, grass

Image:





Requirements:
- Maintain as an attractive entry statement to Dongara
- Investigate possibility of relocating information bay to area adjacent cricket oval.

Priority: Medium.

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 10.

Local/Neighbourhood	X 0.90 ha
Organised Sport	
Foreshore Reserve	

Description: Town Park.
Role: Neighbourhood park (civic).
Facilities: Includes children's playground, gazebo, public conveniences, reticulated turf, good access, and community purpose buildings (Dongara Rag Office, Pottery Club, Dongara Playgroup)

Image:



Requirements:

- Serves current requirements as a focus for civil and cultural activity
- To be planned in accordance with its role in the Town Centre Precinct Plan

Priority: Continue to Maintain.

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 11.

Local/Neighbourhood	X 0.1235 ha
Organised Sport	
Foreshore Reserve	

Description: Memorial Park
Role: Neighbourhood park (civic)
Facilities: Includes war memorial, reticulated turf and gardens, public conveniences, good access

Image:



Requirements:

- Serves current requirements as a focus for civil and cultural activity
- To be planned in accordance with its role in the Town Centre Precinct Plan

Priority Continue to Maintain

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 12.

Local/Neighbourhood	X 5.75 ha
Organised Sport	
Foreshore Reserve	

Description: Moreton Bay Estate park
Role: Local Park (recreation and drainage)
Facilities: Drainage and POS combined, trees, grass, no reticulation

Image:



Requirements:

- To be upgraded to Neighbourhood park (including play equipment).
- Upgrade to be carried out by developer in conjunction with the ongoing adjacent subdivision.

Priority: Medium

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 13.

Local/Neighbourhood	
Organised Sport	
Foreshore Reserve	X

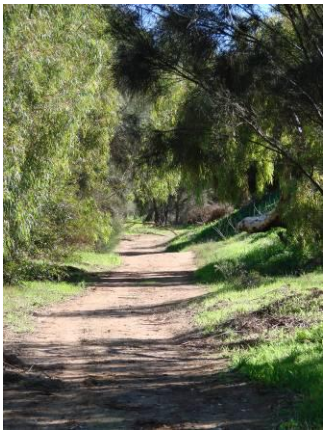
Description: Irwin River

Role: River access, landscape conservation, passive recreation

Facilities: Includes river access and walk trails

Image:





Requirements:

- Review management plans for this section of the river and build on and continue the considerable work that has already taken place in creating walk trails and passive recreation nodes.
- Review to consider the proximity of this foreshore area to the Dongara town centre.
- Further investigate possibility of pedestrian bridge in vicinity of old Monastery building.

Priority: Medium

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 14.

Local/Neighbourhood	
Organised Sport	
Foreshore Reserve	X

Description:	Irwin River mouth
Role:	River and coastal access, landscape conservation, passive recreation
Facilities:	Includes walktrails, boardwalks and staircases, gazebo/bird hide, viewing platform, lookouts and good access.

Image:





Requirements:

- Key environmental and recreation asset.
- Review management plans for this section of the river and build on and continue the considerable work that has already taken place in creating walk trails and passive recreation nodes.
- Create activity nodes at identifiable locations linked by walk trails.

Priority: Medium

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 15.

Local/Neighbourhood	X 1.09 ha
Organised Sport	
Foreshore Reserve	

Description: The Retreat park (area 1)
Role: Neighbourhood park (recreation)
Facilities: Good quality reticulated turf, public seating, good access, treed parkland

Image:



Requirements:
- Developed as good quality neighbourhood park.
- Serves current purpose.

Priority: Continue to maintain

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 16

Local/Neighbourhood	X 0.73 ha
Organised Sport	
Foreshore Reserve	

Description: The Retreat park (area 2)

Role: Neighbourhood park (passive recreation and drainage)

Facilities: Drainage and good quality native garden, public seating, good access

Image:



Requirements:

- Developed as good quality neighbourhood park.
- Serves current purpose.

Priority: Continue to maintain

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 17

Local/Neighbourhood	X 1.23 ha
Organised Sport	
Foreshore Reserve	

Description: Canny Place park
Role: Neighbourhood park (recreation)
Facilities: Children's playground, trees, grass, no reticulation.

Image:



Requirements:
- Investigate suitability for reticulation and turfed area.

Priority: Medium.

SHIRE OF IRWIN
LOCAL OPEN SPACE STRATEGY
OPEN SPACE INVENTORY

Identification No: 18.

Local Neighbourhood	
Organised Sport	X 12.3 ha
Foreshore Reserve	

Description: Irwin Recreation Centre.
Role: District Park (public sporting venue)
Facilities: Recreation Centre - Full indoor facilities including multiple courts, gym, function centre. Plus outdoor facilities including football oval, tennis courts (hard and grassed), netball courts, skate park, BMX track, drive-in theatre and grassed parkland

Image:



Requirements:

- Supports wide area encompassing the whole Shire and surrounding districts, therefore performs a higher order District park role.
- Recognise higher order role in future public open space planning.

Priority: Continue to maintain

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE INVENTORY

Identification No: 19.

Local/Neighbourhood	
Organised Sport	X
Foreshore Reserve	

Description: Dongara/Denison Bowling Club.
Role: Private Sporting Club
Facilities: Grass bowling greens, club house

Image:



Requirements:

- Maintained and administered by Bowling Club.
- No change required/proposed.

Priority: Maintain as current

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 20

Local/Neighbourhood	X 0.0 673 ha
Organised Sport	
Foreshore Reserve	

Description: Ayelia park.
Role: Local Park (drainage and recreation)
Facilities: Drainage

Image:



Requirements:

- To be considered for Neighbourhood park as subsequent development of adjacent land takes place and further land is provided.

Priority: Ongoing in accordance with staged subdivision.

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 21

Local/Neighbourhood	X 0.29 ha
Organised Sport	
Foreshore Reserve	

Description: Bluewater Gardens park
Role: Local Park (recreation and drainage)
Facilities: Drainage, children's playground, reticulated turf

Image:



Requirements:
- Has good facilities.
- Suitable only as Local park.

Priority: Continue to maintain

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 22.

Local/Neighbourhood	X 0.0399 ha
Organised Sport	
Foreshore Reserve	

Description: Marina Heights park
Role: Local Park (recreation)
Facilities: Garden and reticulated turf

Image:



Requirements:
- Serves current purpose.
- Remain as is.

Priority: Continue to maintain.

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 23.

Local/Neighbourhood	X 0.34 ha
Organised Sport	
Foreshore Reserve	

Description: Obrien Park
Role: Local Park (recreation)
Facilities: Trees, grass, no reticulation

Image:



Requirements:

- Upgrade to Neighbourhood park - suitable size and terrain for such.
- Good location close to holiday accommodation and APU's.
- Consider for appropriate aged sensitive facilities.

Priority: Medium.

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 24.

Local/Neighbourhood	X 0.11 ha
Organised Sport	
Foreshore Reserve	

Description: Granny's Beach
Role: Neighbourhood Park (recreation)
Facilities: Children's playground, reticulated turf, shade, shower, public seating, good access.

Image:



Requirements:
- Developed as good quality Neighbourhood park.
- Serves current purpose.

Priority: Continue to maintain

SHIRE OF IRWIN
LOCAL OPEN SPACE STRATEGY
OPEN SPACE INVENTORY

Identification No: 25

Local/Neighbourhood Recreation - Area	X 0.24 ha
Organised Sport	
Foreshore Reserve	

Description: Lots 53 & 54 Point Leander Dr

Role: Local Park (recreation)

Facilities: Trees, grass, no reticulation

Image:



Requirements:

- Freehold land with potential to provide much needed holiday/tourist support node for the adjacent Marina Foreshore.
- Surplus to requirements as Local Park considering high standard of recreation facilities on adjacent foreshore.
- Rezone as appropriate.

Priority: High

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 26.

Local/Neighbourhood	X 0.5 ha
Organised Sport	
Foreshore Reserve	

Description: Obelisk and Fishermans Memorial.
Role: Neighbourhood Park (passive recreation)
Facilities: Navigation beacon and fisherman's memorial, lookout, staircase, interpretive signage and native garden

Image:



Requirements:
- Investigate need for improved pedestrian safety at bottom of obelisk staircase.

Priority: Medium.

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 27

Local/Neighbourhood	
Organised Sport	
Foreshore Reserve	X

Description: Foreshore from Marina to Richardson Road
Role: Coastal recreational area
Facilities: Car park, dual use path, beach access, seating

Image:



Requirements:

- Requires coastal defensive structures north of the marina to be put in place to maintain current extent of foreshore.

Priority Urgent

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 28.

Local/Neighbourhood	
Organised Sport	
Foreshore Reserve	X

Description:	Port Denison Marina foreshore
Role:	Coastal recreation – neighbourhood and tourist
Facilities:	High level of public amenity including reticulated turf areas and trees, shade structures, public bbq's, public seating, children's playgrounds x 4, amateur boat ramp, Fisherman's Hall, public conveniences x 2 and good access

Image:



Requirements:

- Already developed with high quality and extensive coastal recreation facilities.
- Investigate need for management plan for future upgrades/replacement of facilities.

Priority Continue to maintain

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 29.

Local/Neighbourhood	X 0.38 ha
Organised Sport	
Foreshore Reserve	

Description: Cnr George Street and White Tops Road
Role: Local Park (drainage)
Facilities: Drainage sump (overgrown)

Image:



Requirements:

- To be upgraded to Neighbourhood park.
- Large enough to incorporate drainage facilities and a recreation area.
- Upgrade to include site appropriate facilities.

Priority: Medium.

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 30.

Local/Neighbourhood	
Organised Sport	
Foreshore Reserve	X

Description: Coastal reserve, Point Leander to South Beach

Role: Coastal access and conservation

Facilities: None.

Image:



Requirements:

- Consider formalising a walktrail between obelisk and south beach.
- Foreshore Management Plan required on coast side of Tourist Caravan Park to control pedestrian access through dunes.

Priority Medium.

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 31.

Local/Neighbourhood	X 0.0682 ha
Organised Sport	
Foreshore Reserve	

Description: Cnr Hampton Street and Wheeler Street
Role: Local Park (recreation)
Facilities: Native shrubs, grass, no reticulation

Image:



Requirements:

- Awkward site. Could be suitable for small scale play equipment if required in future.

Priority: Continue to maintain

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 32.

Local/Neighbourhood	X 0.0838 ha
Organised Sport	
Foreshore Reserve	

Description: Duval Street (south end)
Role: Local Park (landscape buffer)
Facilities: Mature trees and shrubs

Image:



Requirements:

- Serves current purpose.
- Keep fuel loads low to minimise fire risk.

Priority Continue to maintain

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 33.

Local/Neighbourhood	X 0.47ha
Organised Sport	
Foreshore Reserve	

Description:	Carrol Street
Role:	Local Park (landscape buffer)
Facilities:	Mature trees and shrubs, PAW to Bartlett Place

Image:



Requirements:

- Serves current purpose
- Keep fuel loads low to minimise fire risk.

Priority Continue to maintain

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 34.

Local/Neighbourhood	X 0.48ha
Organised Sport	
Foreshore Reserve	

Description:	Duval Street (north end)
Role:	Local Park (landscape buffer and jinker park)
Facilities:	Mature trees and shrubs

Image:



Requirements:

- Serves current purpose
- Keep fuel loads low to minimise fire risk.

Priority: Continue to maintain

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 35.

Local/Neighbourhood	
Organised Sport	X
Foreshore Reserve	

Description: Pistol Club.
Role: Private Sporting Club
Facilities: Pistol range and clubhouse.

Image:



Requirements:

- Maintained and administered by Dongara Pistol Club
- No change proposed/required
- Future relocation may need to be considered as residential development expands

Priority: Maintain as current

SHIRE OF IRWIN
PUBLIC OPEN SPACE STRATEGY
OPEN SPACE SCHEDULE

Identification No: 36.

Local/Neigbbourhood	
Organised Sport	X
Foreshore Reserve	

Description: Golf Course.
Role: Private Sporting Club
Facilities: Grass greens and some grass fairways

Image:



Requirements:

- Maintained and administered by Dongara Golf Club
- No change proposed/required.

Priority: Maintain as current

Appendix 1

Coastal Zone (Swan Coastal Plain)

The coastal and foreshore units can be further defined by reference to the broadscale land form and soil (land system) mapping of the Department of Agriculture (Rogers and Frost 1992). The relationship between geomorphic regions, geology and land systems for the study area is shown in Table No. 12 from the Shire's Local Planning Strategy.

Relationship between Geomorphic Regions, Geology and Land Systems: Shire of Irwin
(Table 12 from LPS, 2008).

Geomorphic Zone/Region	Geology/Landform	Land System
COASTAL ZONE	Holocene shoreline deposits and dunes	Quindalup
Swan Coastal Plain	Hills of late Pliestocene Limestone	Tamala
	Alluvial plains of the Greenough River	Greenough Alluvium
	Level to very gently included alluvial flats and terraces of the Irwin River	Irwin

These can be further summarised in the landform and dominant soil series occurring in each of the broadscale map units.

Landforms And Dominant Soils Shire of Irwin
(Table 13 from LPS, 2008).

MAP UNIT	LANDFORM	Soil Series	DOMINANT SOILS Description	Local Name/s
COASTAL ZONE – SWAN COASTAL PLAIN				
QUINDALUP Qu1	Dune Complex, mainly parabolic dunes	Quindalup (75%)	Calcareous Sands	Coastal Calcareous Soils
Qu2	Dune Complex with longitudinal dunes	Quidalup (75%)	Calcareous Sands	Coastal Calcareous Soils
Qu3	Older dune complex	Quindalup	Calcareous Sands	Coastal Calcareous Soils
TAMALA Ta3	Gently undulating sandplain	Teakle (85%)	Siliceous sands with yellow clayey sand subsoil over limestone	Greenough flats (part)
Ta4	Gently undulating rises with rock	Teakle (85%)	Sileceous sands with clayey sand subsoil over limestone	
Ta5	Undulating low hills and rises with rock	Bookara (75%)	Calcareous Sands	Coastal Calcareous Sands
Ta6	Isolated rises with rock	Menai (95%)	Red and red-brown siliceous sand over limestone	Greenough flats (part)
GREENOUGH ALLUVIUM				

GA3	Level Alluvial Plain	Fraser (75%)	Self Mulching Grey Clays	
IRWIN - Ir1	Level alluvial flats (lower reaches of Irwin River)	Fraser (75%)	Self Mulching Grey Clays	
Ir2	Level alluvial flats (lower reaches of Irwin River)	Bootenal (45%)	Gradational Red Earths	Red loams/red brown sandy loam over clay
		Moresby (45%)	Yellow duplex soils	Red loams/red brown sandy loam over clay

Table 14 from the Shire's Local Planning Strategy presents a summary of rough correlation with the more broadscale mapping.

Landforms and Soils of the Coastal Area
(Table No. 14 from LPS, 2008).

LAND SYSTEM (Rogers & Frost 1992)	**LANDFORM** Gozzard & Hesp (1983)	**LANDFORM TYPE** (Coastal Dunes Survey)
TAMALA Ta 4, 5, 6	Pliestocene Barrier Complex (Tc)	Nil
Ta3	Pliestocene Barrier Complex (Tc)	Nil
IRWIN Ir 1 & 2	Alluvial Flats (A)	Nil
GREENOUGH ALLUVIUM GA3		
QUINDALUP Qu 1, 2, 3	Deflation basins (D)	Level deflation plain (Qdp) between longitudinal dunes Relic foredune plain (Qr) Undulating Plains (Qs) And Swales (Qd)
	Parabolic dunes (P)	Moderately high parabolic dunes (Qpr), Low parabolic dunes (Qpn) and longitudinal dunes (Qpl)
	Active parabolic dune lobes and blowouts (B)	Steep high parabolic dunes (Qps), blowouts (Qb) and mobile sand sheets (Qm)
	Foredunes (F)	Foredune (Qf), and low fragile dunes immediately behind foredune (Qpf)
	Beach (b)	Nil
	Lagoon and Swamps (L)	Swampy swales (Qdw)

Dune Blowouts

In general the coastline of the Shire of Irwin comprises primary and secondary sand dune systems covered by vegetation which is tolerant of sea blown salt and drought conditions. A study of coastal aerial photography will reveal however that examples of dune blowouts comprising large mobile sand dunes with little or no vegetation cover do exist within the

Dongara/Port Denison area. The existence of such blowouts is of concern to both private landowners and public bodies, since their control presents very real and costly management problems.

It is important to recognise that in most instances dune blowouts are a part of the dynamic coastal system which is constantly changing and that such blowouts are a natural occurrence and not necessarily the result of human activity. There can be no doubt however that human activity in areas where such blowouts exist can have an adverse effect on any management programme put in place to stabilise and balance the natural occurrence.

A coastal management plan which was put in place by the Shire, in 2000 recognises the importance of foredune vegetation in maintaining a balance in the seasonal beach sand cycle and enabling a stable dune environment to be preserved.

Vegetation

The most detailed study of vegetation throughout the Shire was the subject of mapping by Dr JS Beard (1976) and in general terms this illustrated vegetation systems which ran approximately parallel to the coast and following the river systems.

Dr Beard traversed the area at various locations in order to establish vegetation types which existed and study has revealed that the vegetation systems applicable to the Dongara/Port Denison area are:

- Greenough, llyarrie and Cliff Head Systems - of the coastal area; and.
- Irwin System -which follows the Irwin River.

- Between the coastline and Brand Highway alignments, elements of the Greenough, Ilyarrie and Cliff Head vegetation systems exist, with:-

  - Coastal foredunes dominated by species such as spinifex longifolias
  - Limestone and open scrub sandy areas containing dominant plants such as Acacia Rostellifera, Banksia Prionates, which are up to 5m in height, and isolated groves of Eucalyptus Erythrocorys which can literally grow on solid rock, as well as large and small shrubs such as Grevillea Biformis and Meleleuca Unduiata.
  - Alluvial Flat and Grey Sand areas supporting various species of Acacia and Melaleuca.

- In the Irwin River Valley the river channels are lined with Eucalyptus Camaidulensis and Casuarina Huegeliana, while the flood plain which has now been mainly cleared, could have been covered by species such as Eucalyptus Laxaphlebai with undershrubs of the Acacia variety.

Irwin River

The Irwin River system is volatile in nature and subject to snap flooding if heavy rainfall occurs within its catchment area. This river has cut through the coastal limestone in order to reach the sea in a manner which bisects the Dongara/Port Denison Urban Area.

Land Capability

It is evident that the dominant soils in the coastal and river reserves have a very high risk of erosion, if vegetative surface cover is depleted.

Map units where the dominant soils have a high or moderately high risk of erosion according to Rogers and Frost (1992) are listed below;-

Areas Most Susceptible To Erosion
(Table 18 from LPS, 2008).

Quindalup	Qul, Qu2, Qu3
Tamala	Ta3,Ta4,Ta5,Ta6
Mt Horner	MH
Eradu	Erl
Munja	Mj
Casuarina	Ca

Environment and Landscape Awareness

The Shire has over a period of time demonstrated its concern in Environmental and Landscape issues which affect the sensitive, realistic and cost effective management of the Shire and which could have an adverse effect on the environment, within which residents of and visitors to the Shire are expected to live, work and or play.

- Approximately 41.5% of the total Shire area is currently maintained under public control in the form of reserved and or unallocated crown land (UCL), in a manner which ensures that land of natural significance along the coastline and inland and or designated as having Conservation Value under System 5, is suitably protected.

- Provisions of the scheme relate to the clearing/planting of vegetation and the Conservation and Preservation of Places of Natural Beauty and/or, of Historic, Natural, Scientific and Townscape Interest. Provision also exists under the Scheme for Council's consideration of various policies laid down under the Scheme during its decision making process, it is proposed that suitable controls continue under any future Local Planning Scheme.

- Council's management of the 75km coastline which comes under its control are addressed via the implementation of recommendations made under the Shire of Irwin Coastal Plan, prepared by the Shire, in June 2000.

The capability of the coastal and river reserve areas for development are indicated in Table No. 16 in the Shire's Local Planning Strategy.

Capability of Coastal Landforms
(Table 16 from LPS, 2008).

LANDFORM TYPE Gozzard & Hesp (1983)	**LANDFORM TYPE** (Coastal Dunes Survey)	**LAND CAPABILITY COMMENTS**
Pliestocene Barrier Complex (Tc)	Nil	Generally high capability for residential development although shallow limestone may cause installation problems for sewerage or septic tanks; slopes susceptible to erosion. Used mainly for light grazing year round.
Pliestocene Barrier Complex (Ts)	Nil	Generally high capability for residential or rural-residential development although slopes susceptible to erosion. Used mainly for light grazing year round.
Alluvial Flats (A)	Nil	Generally high capability for all forms of development providing flood affected areas are avoided. Intensively used for cropping.
Deflation basis (D)	Level deflation plain (Qdp) between longitudinal dunes Relic foredune plain (Qr) Undulating plains (Qs) and Swales (Qd)	Moderate capability for rural-residential development providing adjacent more fragile areas not adversely affected. Medium erosion hazard and may sustain grazing in winter. As above but with low erosion hazard and hence can sustain year round grazing.
Parabolic dunes (P)	Moderately high parabolic dunes (Qpr), low parabolic dunes (Qpn), and longitudinal dunes (Qpl)	As above but with low erosion hazard and may sustain grazing in winter.
Active parabolic dune lobes and blowouts	Steep high parabolic dunes (Qps), blowouts (Qb) and mobile sand sheets (Qm)	Very low capability for all uses. High erosion hazard and unable to sustain grazing.
Foredunes (F)	Foredune (Qf), and low fragile dunes immediately behind foredune (Qpf)	Very low capability for all uses. High erosion hazard and unable to sustain grazing. A 100m 'no development' buffer zone from seaward edge of vegetation usually recommended.
Beach (b)	Nil	Very low capability for all land uses.
Lagoons and Swamps (L)	Swampy swales (Qdw)	Very low capability for residential and rural-residential uses due to poor site drainage and pollution risks, however margins may sustain year round grazing due to low hazard of erosion.