



2001-2021

Southern Shores



**A Strategy To Guide Coastal and Marine Planning and Management
in the South Coast Region of Western Australia**





SOUTHERN SHORES 2001-2021

A strategy to guide coastal and marine planning and management in the South Coast Region of Western Australia

Prepared by



SOUTH COAST MANAGEMENT GROUP

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Charlie Hick
Chair, South Coast Management Group
Chair, Jerramungup Coastcare Committee



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Kindest Regards to all,

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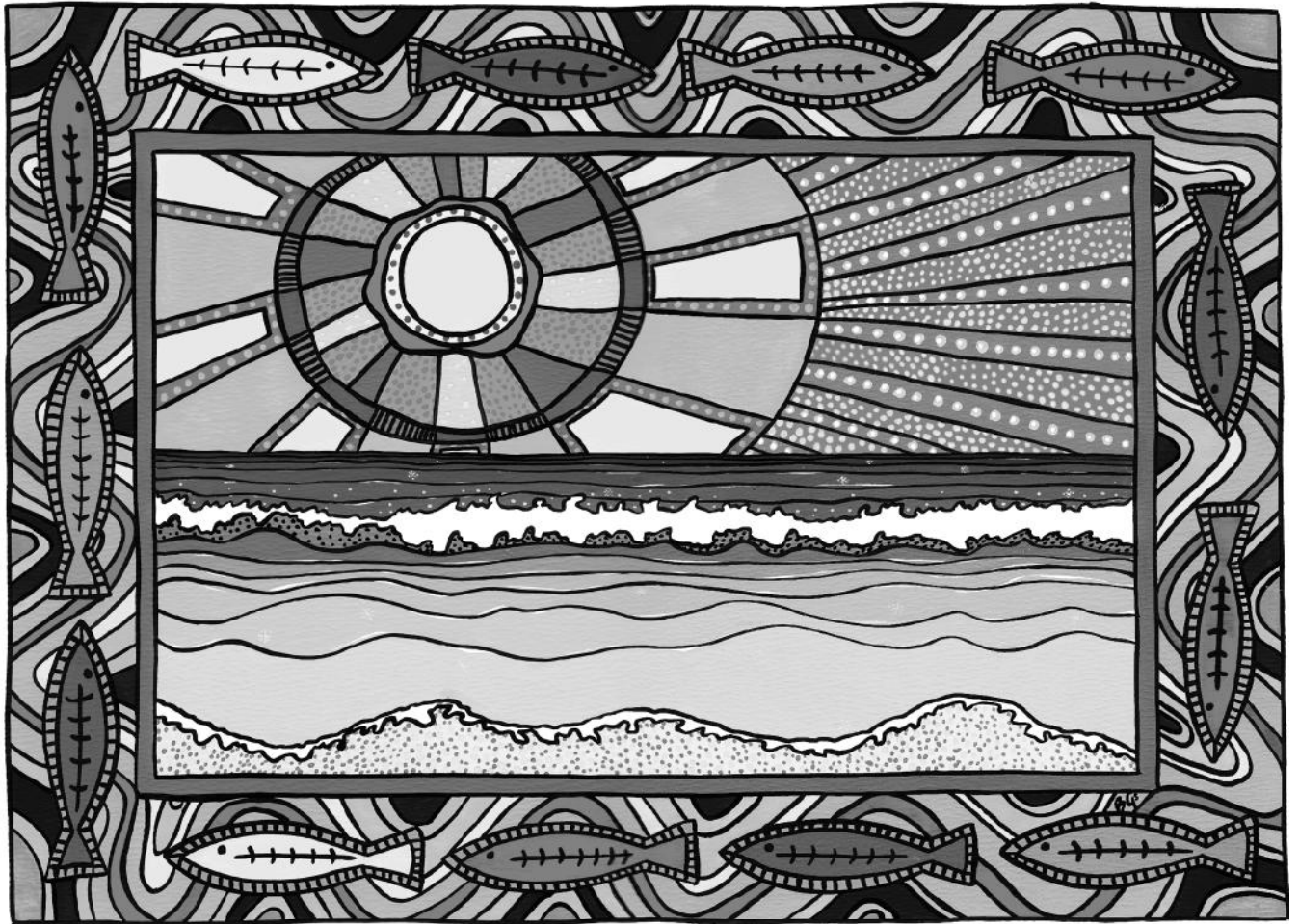
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1. INTRODUCTION

The coastal and marine environments of the South Coast Region are among the most pristine and scenic along the entire Western Australian coast. They offer a unique experience for all who visit and all who choose to live and recreate on the coast. People are drawn to the South Coast for its awe inspiring scenery, its unique environmental values, its intact natural systems, its steady and considerate development options and for a lifestyle not found elsewhere in the state.

While many areas of the South Coast are sparsely populated, the City of Albany and Town of Esperance have developed into bustling economic centres. The smaller coastal towns of Bremer Bay, Hopetoun and Denmark provide a different level of economic activity relying heavily on seasonal tourism. All towns provide a variety of experiences for the people who live in them and those who visit the area and are each unique in their own way. This uniqueness also allows visitors enormous scope for choosing the experience they wish to have while in the region. It should not be forgotten that the uniqueness of each centre is a valuable asset in itself.

The coastline of the Region consists of some of the most spectacular beaches and waters found in Australia. Beaches are most often a brilliant white and provide a magnificent contrast to the clear aqua waters of the near shore Southern Ocean. Tall and steep dunes, vegetated with colourful and hardy flora extend along much of the coastline providing a spectacular viewsheds, with rivers and inlets meandering through the granite based topography to create a multi-coloured landscape. Off shore is no different with the blue hues of the ocean constantly changing and contrasting with wind blown white caps. Whales, dolphins, seals and sea birds are common sights with an amazing diversity of marine life existing under the surface.

The South Coast coastline is an important asset environmentally; economically; and socially, to the people of the South Coast Region and of Western Australia. It has, however, been recognised that pressures on the coastal and marine environments are increasing. A need now exists for a strategic look to be taken at what those pressures are, how the coast has been planned and managed in the past and how planning and management should proceed in the future. This will assist us all in maintaining our natural assets and lifestyle values in a sustainable manner for current and future generations to enjoy.

1.1 Purpose of this Document

The purpose of **Southern Shores 2001-2021** is to:

- Provide a vision upon which to focus future planning and management efforts;
- Outline community identified issues affecting the coast and seas of the South Coast Region which have community focus;
- Encourage cooperative involvement by community, Local, State and Commonwealth government and relevant organisations in solution seeking and issue resolution;
- Provide guiding principles, strategic objectives and actions upon which to base future planning and management efforts;
- Facilitate cooperative involvement.

2. VISION guiding SOUTHERN SHORES

A shared vision is often the binding link between people wishing to form workable partnerships. The vision statement should clearly outline a holistic view of where efforts can be directed. It should encompass environmental, economic, social and aesthetic values and provide a basis upon which to lay a foundation for the building of confidence between all parties. Most importantly, it should be non-threatening to any party involved in coastal and marine planning and management, particularly Local Government and community who have an immensely important role to play.

2.1 Vision Statement

"The South Coasts coastal and marine environments will continue to be home to a diverse range of flora and fauna and be places of immense natural beauty. The wealth of biological and geological diversity will be better understood and protected wherever possible through integrated management efforts.

Protection of coastal vegetation will be an important consideration in land-use planning, particularly in regard to the maintenance and strengthening of the coastal vegetation corridor which extends from Walpole/Nornalup National Park in the west to Cape Le Grand National Park in the east.

The coast will remain, in the majority, in public ownership and will be managed cohesively and cooperatively by relevant land managers and community. Townships will be coastal in character and will not expand beyond the carrying capacity of the environment in which they are situated. Public structures along the coast will be designed and sited to respect the environment in which they sit, ecologically, culturally and aesthetically.

Coastal management will focus on rehabilitation and improvement to the coastal environment with provision of basic facilities and services that enhance visitor enjoyment and safety. The south coast will continue to provide year round enjoyment for people to get away and experience clean natural settings.

Conflicting uses of the coast and seas will be managed for the broad public benefit. Vehicle access will be managed so as not to cause degradation of the coastal environment. Maritime related activity will be given priority over uses that are not coastal dependent. Key boating access points will be planned to provide a range of boating services, from commercial through to private recreational. Coastal dependent industry such as commercial fishing, aquaculture, and nature-based tourism that is innovative, economically viable, environmentally sustainable and socially acceptable will be facilitated in appropriate locations.

The community and all levels of government will work in partnership to continuously improve the quality of the coastal and marine environment of the South Coast Region of Western Australia."



3. PRINCIPLES GUIDING SOUTHERN SHORES

**Over riding principle -
WORK WITH NATURE NOT AGAINST IT**

3.1 Guiding Principles

Integration Sustainability Caution Education Support

- The whole of the South Coast community will be encouraged to be **involved** in planning for and managing the coast and seas.
- Planning and management of the sea and land will be an **integrated effort by all** levels of government and community.
- The coast and seas will be managed to ensure that the coastal and marine resources of today are **available to future generations.**
- The coast and seas are a **long-term public asset** which should not be compromised for short-term recreational, commercial or industrial gain.
- The natural dynamic coastal and marine processes should be **respected and protected** wherever possible.
- Risky or irreversible decisions will be dealt with **cautiously.**
- Coastal planners and managers will **proceed with caution** when proposals which have the potential to interrupt natural coastal or marine processes are considered.
- **Education** of coastal and marine users, planners, managers and researchers **is vital** to the future of natural coastal and marine environments.
- Considerate and **respectful support** will be provided to volunteer community members who undertake management works on behalf of land or sea managers.
- Research which provides insight into the sustainable management of coastal and marine environments will be **supported whole heartedly.**

4. DEVELOPING SOUTHERN SHORES

In the mid 1990's Local Government and community representatives formed the South Coast Management Group (SCMG) – a regional representative body of coastal planners and managers. SCMG provides a bi-monthly forum for the discussion of issues relating to coastal and marine planning and management and also actively promotes best practice coastal management in the South Coast Region (Denmark to Eucla). SCMG is advised by State government departments who have a direct link with coastal and marine planning and management, these include Water & Rivers Commission(WRC), Department of Conservation and Land Management (CALM) and Fisheries WA (FWA). Other delegates to the Group include the South Coast Regional Initiative Planning Team (SCRIPT) with peripheral interest taken by the Ministry for Planning (MfP), Great Southern Development Commission (GSDC), Goldfields/Esperance Development Commission (GEDC) and tourism and aboriginal organisations within the Region.

With the advent of the Coastcare program and the appointment of Coastcare Facilitators in regional areas of Western Australia in 1997 coastal planning and management has grown in stature and now has widespread support and commitment from the general community. At present it is estimated that approximately 30 groups are working in the region on projects such as education and awareness campaigns, scientific marine surveys and construction of walk trails. These groups are provided with technical and material support by relevant government agencies and work to enhance the capability of the coastal and marine environment to be used sustainably into the future.

SCMG's established mission is to:

- Ensure the maintenance of the South Coast as a pristine and unique environment which is open to the public;
- Repair existing degraded coastal areas; and
- Encourage appropriate coastal development, which is consistent with above objectives.

SCMG are the lead body responsible for the development of **Southern Shores** – a strategy to guide coastal and marine planning and management in the South Coast Region of Western Australia for the next 10 – 20 years. In 1998 and 1999 funding of \$250,000 was made available to SCMG through the Commonwealth of Australia's Natural Heritage Trust, Coast and Clean Seas program. This funding administered two projects:

- Phase 1 – South Coast Geographical Information System; and
- Phase 2 – development of **Southern Shores**.

Phase 1- Geographical Information System (GIS – a mapping and spatial interpretation database) compilation was completed in 1999 and has been used during the development of Phase 2. The GIS provides a raw data base of information which will be made available to all coastal planners and managers along the entire south coast. It consists of information from all relevant government departments and includes features such as topography, vegetation communities, known whale 'hot spots', benthic habitat mapping and many other details which can help support coastal planning and management in the region.

A Regional Coastal Planner was appointed in November 1999, for a two year period. She has been responsible for the development of Phase 2 through to completion. Phase 2 has involved the development of the following supporting documents to **Southern Shores**.

- **Terrestrial Fauna of the South Coast – a review** (Gilfillan, 2000)
This document reviews current knowledge of terrestrial fauna in the coastal environment of the south coast region, identifies gaps in knowledge and brings together recommendations for further investigation.
- **Vegetation and Flora of the South Coast – a review** (Craig, 2000)
This document reviews current knowledge of vegetation and flora in the coastal environment of the south coast region, identifies gaps in knowledge and brings together recommendations for further investigations.
- **Geology, Landforms and Mineral Extraction in the South Coast – a review** (Green & Wetherley, 2000)
This document reviews current knowledge of geology and landforms in the coastal environment of the south coast and bring together recommendations for further investigation. It identifies gaps in knowledge and reviews current and potential mineral extraction activities within the region.

- **Coastal Familiarisation – Management and Condition of Coastal Locations in the South Coast** (SCMG, 2000a)
This document provides information about the condition and management level of each coastal location in the south coast, excluding those within CALM managed estate. In all 128 locations were surveyed to identify their needs in regard to management. Nearly 60% of coastal locations were found to be in a poor or less than good condition.
- **Coastal Tourism and Recreation on the South Coast** (Goedt & Alder, 2000)
This report presents the results of three consecutive surveys undertaken throughout the south coast to determine why people visit the coast and what they do when they are there. It provides insight to the aspirations of residents and visitors to the south coast and what their expectations are.
- **Coastal and Marine Issues Discussion Paper** (SCMG, 2001)
This document discusses all the issues contained within **Southern Shores** in some detail. All issues were identified during community consultations held throughout the region over an eighteen month period and provide an insight to what problems have community focus at present.
- **Community Consultation Analysis – people of indelible character** (SCMG, 2000)
This document provides an analysis of all community consultation held throughout the south coast region over an eighteen month period. Workshops were held in all coastal towns for both adults and students, a regional seminar was convened in Albany and a Regional Coastal Network of over 500 people was established. Additionally, consultations were held with Local Government councillors and staff, each State Government agency with direct responsibility on the coast or in the seas, community and as many individuals as possible.
- **Draft Southern Shores** (SCMG, 2001a)
This document was released as the first public edition of the south coast regional coastal strategy. A submission period extended for 42 days to allow comment from agencies, organisations and community.
- **Analysis of Submissions received for Draft South Shores** (SCMG, 2001b)
This document is a collation of all submissions received for Draft Southern Shores and responses to those submissions.

4.1 Implementing Southern Shores

Southern Shores contains 76 strategic objectives and 466 actions in sections 7 to 13 which follow. For all of these strategic objectives and actions a list of key parties (e.g. LG's, CALM, WRC, Community) is suggested in brackets. These lists are suggestions only and don't necessarily place formal responsibility on the individuals and organisations listed. Rather their attention is drawn to the important contribution that they may be able to make within their own policy and financial priorities.

The time has been taken however, to discuss the development of Southern Shores with all organisations listed, directly and/or through invitations to comment on Pre-Draft and Draft documents. Many have taken the time to enhance the workability of some actions so that they may assume responsibility or involvement in implementation where their presence may be appropriate.

Actions are prioritised according to the following categories (Table 1), however these too are suggestive only.

Table 1. Prioritisation categories assigned to actions within Southern Shores.

Priority	Definition
HIGH	Essential in the short term and achievable within 0-5 years.
MEDIUM	Essential in the long term and achievable within 0-10 years.
LOW	Desirable in the long term and achievable within 0-20 years.
ONGOING	Desirable in the short and long term and will require ongoing effort to be achieved.

Southern Shores Implementation Plan (SCMG, 2001c) has also been produced to help guide the involvement of those who wish to begin implementing actions. The implementation plan may assist land and sea managers access funding for essential works and attract more resources for coastal and marine planning and management to the Region. It may also help managers focus on where and how best to spend their limited resources. The implementation plan provides cost and labour estimates where possible and suggests possible sources of funding.

It is proposed that facilitation of implementation will be provided, wherever appropriate by SCMG, at a regional level. However, implementation can be facilitated by any organisation or group who have a strong interest in seeing an action implemented, particularly those who have been suggested for involvement in actions.

4.2 Measuring Success

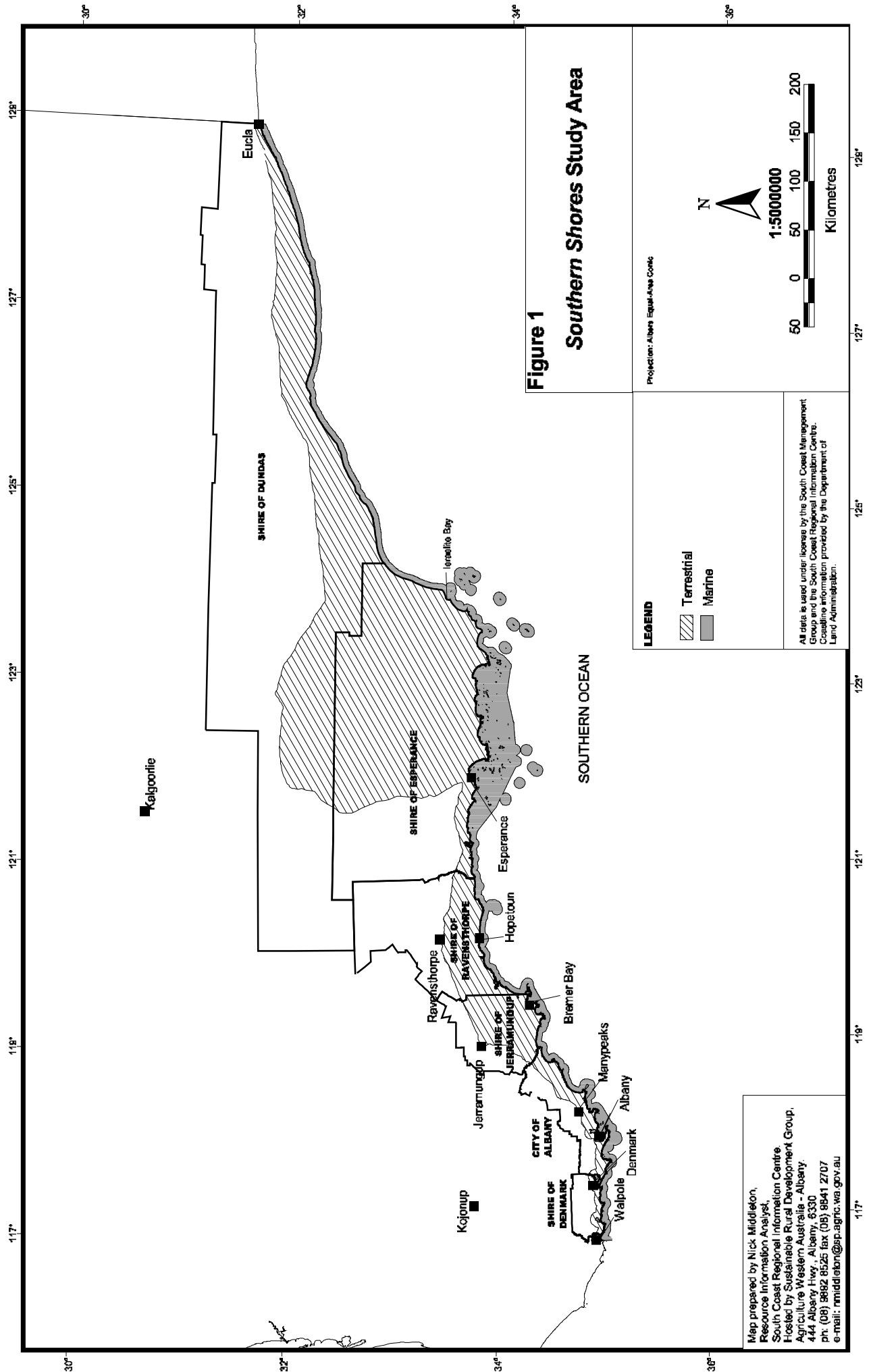
As with all public documents **Southern Shores** will need to be re-evaluated and audited on a regular basis to gauge its success and effectiveness. This is expected to occur on a bi-annual to five yearly basis and will be the responsibility of SCMG. A project officer will need to be employed to undertake this review and to facilitate knowledge transfer between organisations and community who have become involved in implementation of actions.

4.3 Study Area

The study area stretches along the coast from Nornalup Inlet (Shire of Denmark, Shire of Manjimup boundary) to Eucla at the state border; approximately 15% of the Western Australian coastline.

The area encompassed by **Southern Shores** varies in width along the length of the coast. The northern boundary approximates at the South Coast Highway from Denmark to Esperance and the Eyre Highway from Norseman to Eucla. However, particular attention is focused on the 5 kilometre coastal area from low water mark landward and seaward to the three nautical mile State limit. (Figure 1)

Southern Shores focus is upon local government reserves, urban areas and Unallocated Crown Land. However, issues affecting CALM managed estate are discussed and comment on these areas have been collated to assist CALM in future plan revision and/or the generation of new statutory management plans.



5. EXISTING COMMONWEALTH, STATE, REGIONAL and LOCAL PLANNING AND POLICY INITIATIVES

It is important when developing strategies that there is a full understanding of initiatives which have been undertaken at the Commonwealth, State, regional and local level. This then allows all of us to become involved in informed decision-making when seeking solutions for problems. The following information is coastal and marine specific, with further information provided when considered relevant.

5.1 Commonwealth Initiatives

The Commonwealth, at the international level has become a signatory to many international environmental initiatives. These initiatives are often the impetus for specific planning and management to occur throughout the country. The initiatives of most importance to **Southern Shores** are:

- Australia's Oceans Policy (Environment Australia, 1999) – this document provides broad statements and recommendations on the planning and management of ocean resources for which Australia has responsibility;
- Living on the Coast – The Commonwealth Coastal Policy (Department of the Environment, Sport and Territories, 1995) – this document provides broad statements and recommendations for coastal planning and management on an Australia wide basis; and
- Wetlands Policy of the Commonwealth Government of Australia (Environment Australia, 1997).
- Japan-Australia Migratory Bird Agreement (JAMBA)
- China-Australia Migratory Bird Agreement (CAMBA)

The Commonwealth Government is responsible for the management of the Exclusive Economic Zone which extends 200 nautical miles offshore, excluding 3 nautical miles of inshore State waters.

5.2 State Initiatives

The State Government has recently released the Draft Coastal Zone Management Policy for Western Australia (WAPC, 2001) which replaces Coastal Planning and Development in Western Australia – Towards a policy framework (WAPC, 1996a). This draft policy outlines a whole of government approach to coastal planning. The Ministry for Planning¹ is also guided in coastal planning by the Country Coastal Policy (DC6.1, June 1989). It is expected that this policy will be reviewed in the near future.

Offshore the Western Australian Government is guided by New Horizons in Marine Management – the way ahead in marine conservation and management (Government of Western Australia, 1997), a policy which provides a framework for the conservation and management of the States marine environment through the reservation of marine representative systems.

The Environmental Protection Authority (EPA) has issued the Draft Environmental Protection (State Marine Waters) Policy (EPA, 1998). The purpose of this policy is to preserve, enhance and protect the environmental values of the State's marine waters (EPA, 1998). The EPA has also issued guiding documents for the assessment of environmental factors, specifically Benthic Primary Producer Habitat Protection (EPA, 1998a) and Seagrass Habitat Protection (EPA, 1998b). The purpose of these guiding statements is 'To maintain the ecological integrity and biodiversity of marine ecosystems of Western Australia'.

The Western Australian Planning Commission (WAPC) is also guided by the State Planning Strategy (WAPC, 1996a). This strategy, while not being coastal specific, provides a framework for planning throughout the State. The strategy is aimed at developing a land use planning system to help the State achieve a number of key goals. These include generating wealth, preserving and enhancing the environment, and building vibrant and safe communities for the enjoyment of this and subsequent generations of Western Australians (WAPC, 1996a). The Department of Commerce and Trade has also developed the Regional Development Policy (Department of Commerce and Trade, 2000) which is a document that aims to ensure a whole of government approach to the provision of planning and support, crucial to sustainable development.

Footnote: As from 5th September Ministry for Planning are known as Department for Planning and Infrastructure.

The Department of Conservation and Land Management (CALM) have prepared the Draft Nature Conservation Strategy (CALM, 1992) which has a fundamental objective to 'conserve in perpetuity the widest possible diversity of indigenous landscapes, ecosystems and species (including their genetic variability) in natural habitats in Western Australia' and to 'establish and maintain a Statewide reserve system that is broadly representative of the states natural habitats and forms a network of natural lands and waters that are sufficiently large and appropriately located to provide a refuge for migratory and other species'.

The Government of Western Australia is also guided by the Wetlands Conservation Policy for Western Australia (Government of Western Australia, 1997) which recognises and commits to the protection and maintenance of wetland areas and associated flora and fauna throughout the State. Water & Rivers Commission (WRC) has also developed the Draft Statewide Waterways Policy to assist in the sustainable management of waterways (Water & Rivers Commission, 2000a).

A number of important and baseline studies were undertaken to provide information for management of estuaries and coastal lagoons in the 1980's (Hodgkin (Ed), 1984; Hodgkin & Kendrick, 1984; Hodgkin & Clark, 1987; Newbey, 1987; Hodgkin & Clark, 1988a; Hodgkin & Clark, 1988b; Hodgkin & Clark, 1988c; Hodgkin & Clark, 1989; Hodgkin & Clark, 1990a; Hodgkin & Clark, 1990b). These studies have made significant contributions to management and planning for estuaries and coastal lagoons in the South Coast.

5.3 Regional Initiatives

Prior to **Southern Shores**, no coastal specific regional planning has been undertaken for the south coast. However, Southern Prospects – a strategy for managing natural resources and developing rural communities in the South Coast of Western Australia (SCRIPT, 1996; SCRIPT, in prep.) is a guiding document for natural resource planning throughout the inland areas of the region. The study area for Southern Prospects extends to the coast, however, it focuses mainly on inland natural resource management. **Southern Shores** is a complementary strategy to Southern Prospects providing a valuable link between inland resource management and coastal and marine planning and management.

WAPC has produced the Goldfields-Esperance Regional Planning Strategy (WAPC, 1999). This strategy includes the coast from Hopetoun to Eucla although it is not coastal specific. This strategy does however recommend the preparation of a regional coastal management plan and has thus influenced the development of **Southern Shores**. The Albany Regional Planning Strategy (State Planning Commission, 1994) also guides land use and economic growth in the Great Southern.

Further strategic planning at the regional level has been undertaken by CALM and is presented in the South Coast Region Regional Management Plan (1992a). This plan is a statutory document under the CALM Act (1984). With CALM managing approximately 70% of the coast in the South Coast Region it is important that **Southern Shores** develops in harmony with and considers many of the CALM recommendations for coastal planning and management.

5.4 Local Initiatives

There are six local governments within the South Coast Region: Shire of Dundas, Shire of Esperance, Shire of Ravensthorpe, Shire of Jerramungup, City of Albany and Shire of Denmark. Each has a responsibility to manage the coast within their boundaries to varying degrees. Local Government also often assume informal management of Unallocated Crown Land, particularly where it has become important recreational space for local communities. Coastal reserves can be vested to local government for a variety of purposes, most often for the purpose of recreation.

Local government has a role in the planning of coastal infrastructure in consultation with developers, industry, commerce and community. They also work closely with State Government agencies in the cohesive management of local government reserves which abut or are contiguous with State reserves.

State Government bodies also take a lead role in local planning of some areas of the coast within their legislative jurisdiction. Individual management plans for CALM managed estate are a relevant example.

5.4.1 Department of Conservation and Land Management²

The Department of Conservation and Land Management is responsible for the management of a considerable area of public estate within the South Coast Region. The estate also includes the majority of islands found along the South Coast.

CALM have developed a Regional Management Plan (CALM, 1992a) which sets priorities for the production of specific management plans for CALM managed estate throughout the Region. CALM manages these areas on behalf of the Conservation Commission of Western Australia in whom they are vested. Plans completed to date include:

- Fitzgerald River National Park (CALM, 1991)
- Walpole-Nornalup National Park (CALM, 1992b)
- West Cape Howe National Park (CALM, 1995)
- Two Peoples Bay Nature Reserve (CALM, 1995a)
- Esperance Lakes Nature Reserves (CALM, 1999)

In the absence of a gazetted management plan approved Interim Management Guidelines permit CALM to carry out necessary operations, within reserves, for the protection or preservation of persons, property, land, flora and fauna. Interim Management Guidelines have been produced for:

- Stokes National Park
- Lake Shaster Nature Reserve
- Woody Island Nature Reserve
- Eucla National Park
- Nuytsland Nature Reserve
- Cape Le Grand National Park
- Cape Arid National Park
- Recherche Archipelago Nature Reserve
- Torndirrup National Park ;and
- Waychinicup National Park including Manypeaks Nature Reserve (under review).

Draft Temporary Management Guidelines are being developed for Gull Rock, unvested National Park , in consultation with the City of Albany and local community until which time vesting can be determined.

The Marine Parks and Reserves Authority (MPRA) are responsible for the implementation of marine reserves in Western Australia with support provided by CALM Marine Conservation Branch. Although there are currently no marine reserves in the South Coast potential areas for marine reservation have been suggested by the Marine Parks and Reserves Selection Working Group (MPRSWG, 1994). These areas include:

- Walpole/Nornalup Estuarine System
- William Bay
- West Cape Howe
- King George Sound-Princess Royal Harbour
- Cape Vancouver to Bald Island
- Fitzgerald Biosphere Reserve
- Stokes Inlet
- Recherche Archipelago, and
- Twilight Cove.

² Department of Conservation and Land Management are in the process of changing their name to Department of Conservation. The Department's framework is expected to remain unchanged in the South Coast region.

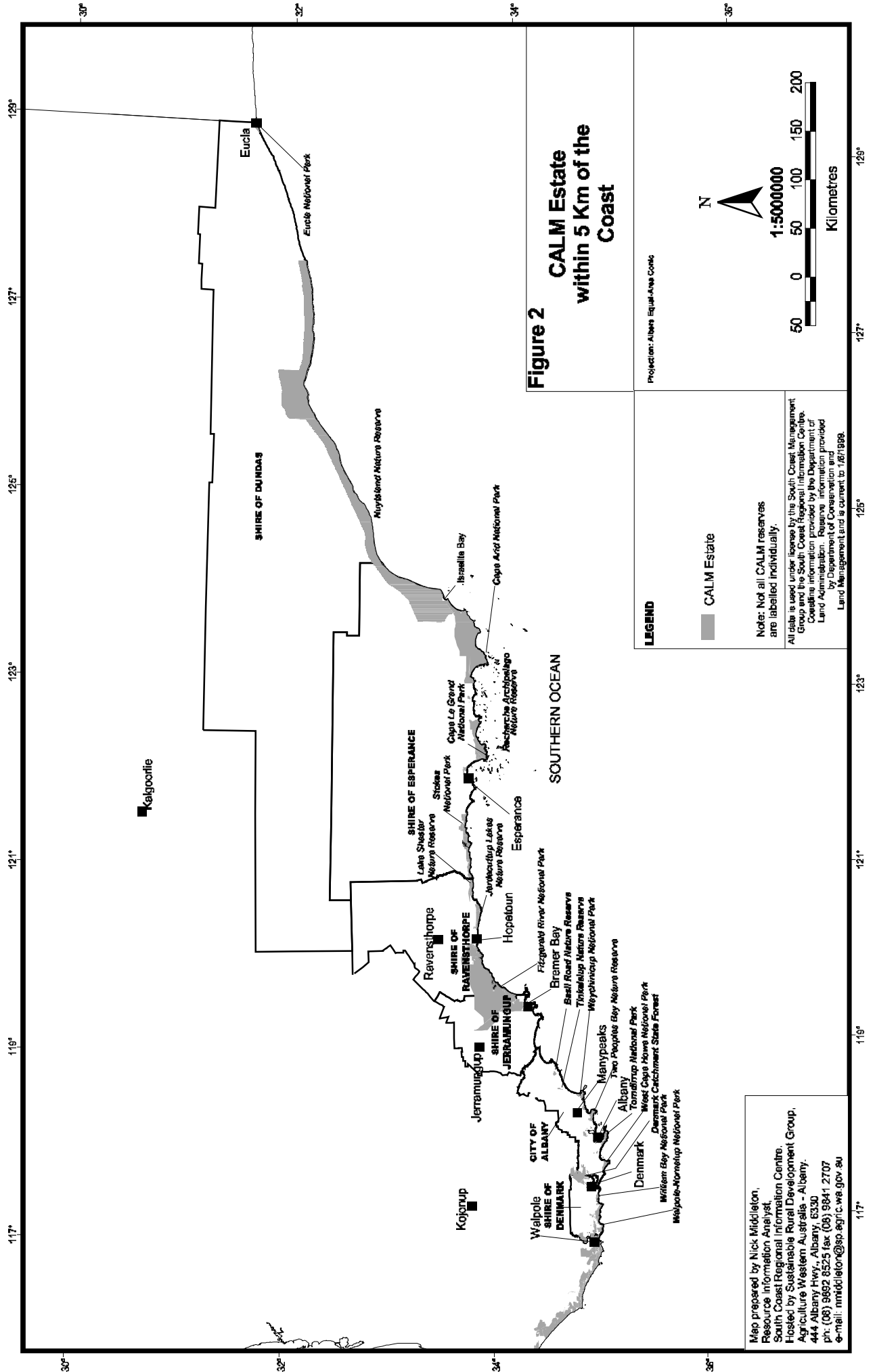
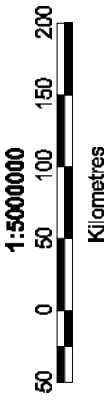
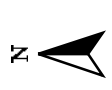


Figure 2
CALM Estate
within 5 Km of the
Coast

Projection: Albers Equal-Area Conic



LEGEND

■ CALM Estate

Note: Not all CALM reserves are labelled individually.

All data is used under license by the South Coast Management Group and the South Coast Regional Information Centre. Coordinate information provided by the Department of Land Administration. Reserve names are provided by Department of Conservation and Land Management and is current to 1/6/1998.

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5.4.2 Fisheries Western Australia

Fisheries WA (FWA) is working towards the protection and sharing of the Western Australian coastal, estuarine and freshwater fish stock resources, for present and future generations. A new strategy has been developed to ensure this protection through integrated management. This process acknowledges all stakeholder groups including commercial fishers, recreational fishers, conservation groups, indigenous people and the wider community. Stake holders are encouraged to participate in the decision making processes, that are undertaken when considering submissions for the allocation of fish resources. In order to commence discussion and consultation, FWA have recently released the following Fisheries Management Policy papers:

- Management Directions for Western Australian Coastal Commercial Finfish Fisheries (Fisheries Management Paper No. 134) (FWA, 2000)
- A study into Western Australian open access and Wetline Fisheries (Fisheries Research Report No. 118) (FWA, 1998)
- Management Directions for Western Australian Estuarine and Marine Embayment Fisheries (Fisheries Management Paper No. 131) (FWA, 1999)
- Management Directions for Western Australian Recreational Fisheries (Fisheries Management Paper No.136) (FWA, 2000a)
- Assessment of applications for authorisations for Aquaculture and Pearling in coastal waters of Western Australia (Ministerial Policy Guideline No. 8) (FWA, 1997)
- Abalone Aquaculture in Western Australia (Fisheries Management Paper No. 133) (FWA, 1999a)
- Aquaculture Development Plan for Wilson Inlet (FWA, WIMA, SoDe, 2000).
- Aquaculture Plan for the Recherche Archipelago (Fisheries Management Paper 140) (FWA, 2000b).

In addition to the fisheries management papers, the South Coast Estuarine Fishery has recently been reviewed and management arrangements will be implemented in the near future.

In 2002/03 it is proposed that the recreational fisheries for the South Coast Region are reviewed. This is consistent with the Regional Recreational Management Strategies already undertaken for the Gascoyne and West Coast Regions.

Fisheries WA have also committed to developing an Aboriginal Fishing Strategy. The Great Southern Development Commission chair the South Coast Reference Group for this strategy. They provide a coordinating role in relation to Aboriginal economic development initiatives as they pertain to the aquaculture and fishing industry in the Great Southern.

5.4.3 Water & Rivers Commission ³

The Water and Rivers Commission (WRC) has responsibilities for the protection and management of water resources throughout the State, including surface and ground water. WRC also provides expertise and supports waterways management authorities within the Region. Management authorities are given the responsibility of overseeing the planning and management of particular waterways through the Waterways Conservation Act, 1976. There are two management authorities in the South Coast Region, the Albany Waterways Management Authority (AWMA) and the Wilson Inlet Management Authority (WIMA).

Albany Waterways Management Authority

AWMA coordinates the conservation, management and restoration of Albany's harbours and their catchment. AWMA have been involved in the development of:

- Albany Waterways Management Programme (AWMA, 1995)
- Albany Harbours Planning Strategy (AWMA & City of Albany, 1997)
- Albany Harbours Planning Strategy Guidelines (AWMA & City of Albany, 1998) and
- Woolstores to Frenchmans Bay Foreshore Management Plan (AWMA & City of Albany, 2000).

³ From July 2001 the Water and Rivers Commission and the Department of Environmental Protection became incorporated into the new Department of Environment, Water and Catchment Protection. The responsibilities of the WRC have been passed to this department. The Albany Waterways and Wilson Inlet Management Authorities will cease to exist after December 2001, and at the time of finalising this report are developing new arrangements for the management of these waterways.

Wilson Inlet Management Authority

WIMA, is a similar authority to AWMA. WIMA coordinates the conservation, management and restoration of Wilson Inlet and its catchment waterways. WIMA has been involved with the development of the:

- Denmark Foreshore, Wilson Inlet Management Plan (WIMA & Shire of Denmark, 1996)
- Prawn Rock Channel Concept Plan (WIMA & Shire of Denmark, 1997) and
- Hay River to Denmark River Foreshore Management Plan (WIMA and Shire of Denmark in prep.).

5.4.4 Department of Land Administration

Most of the land held in public ownership is A Class Reserve, Unallocated Crown Land, unvested or vested reserves. The Department of Land Administration is responsible for the administration and management of Unallocated Crown Land. This responsibility does not extend to on-ground management of reserves unless specific problems are identified and rectification sought. In some areas where coastal locations have become important community assets, Local Government will assume some responsibility for the on-ground management of Unallocated Crown Land. However, in the most part Unallocated Crown Land remains unmanaged at the on-ground level and is in a state of environmental decline due to unmanaged use and access.

5.4.5 Shire of Dundas (Figure 4)

The Shire of Dundas has no specific coastal management plan. The remoteness and relative inaccessibility of the coast in this region has not necessitated the need for a formal planning process to be undertaken to date. However, a coastal assessment was undertaken in 1989 (Carmen-Brown, 1989). This assessment contributed to the development of the Goldfields-Esperance Regional Planning Strategy (WAPC, 1999).

5.4.6 Shire of Esperance (Figures 5)

The Shire of Esperance has undertaken the production of several coastal management plans over a number of years. These include the:

- Duke of Orleans Bay Regional Park Plan of Development and Management (Chalmers, 1983)
- Esperance District Coastal Management Plan (Chape & Sansom, 1983).
- Israelite Bay Management Plan (Esperance Shire Council, 1984)
- Esperance Eastern Coast Planning and Management Report (Craig & Oma, 1984) and
- Coastal Management Plan – Munglinup Inlet Area (Chalmers, 1984)

The Draft Esperance Coastal Management Plan (Field, 2001) is expected to be finalised in 2001.

5.4.7 Shire of Ravensthorpe (Figures 6)

A number of coastal planning and management documents have been developed for the Ravensthorpe coast. These include:

- Starvation Boat Harbour Coastal Management Plan (Van Steveninck & Burkin, 1984)
- Ravensthorpe District Draft Coastal Management Plan (Craig et al, 1984)
- Hamersley Inlet Reserve Management Plan (Shire of Ravensthorpe, 1988)
- Powell Point Draft Site Plan (Department of Planning and Urban Development, 1991)
- Hopetoun Foreshore Management Plan (Craig, 1992).
- Shire of Ravensthorpe Coastal Site Development Plans (Craig G, 1997)
- Hopetoun Foreshore Site Development Plan (Bennett, 2001)

The Draft Ravensthorpe Coastal Management Plan (Field, 2001a) is expected to be finalised in early 2002.

5.4.8 Shire of Jerramungup (Figures 7)

The Shire of Jerramungup has been relatively pro-active in coastal planning and management in recent years and is guided by:

- Doubtful Islands Area Coastal Plan, Stage 1 (Craig, 1994) and the
- Beaufort Inlet and Wellstead Estuary Coastal Plan (Craig, 1994).

In 1995 these two reports were combined to produce:

- Jerramungup Coastal Management Plan (Shire of Jerramungup, 1995). This plan is to be reviewed in the near future.

In addition the Shire commissioned the Bremer Bay Coast Aquaculture Feasibility Study (Ecologia, 1996) and the Bremer Bay Aquaculture Project Ocean Water Circulation System (Rodgers MP & Associates, 1998).

5.4.9 City of Albany (Figures 8)

The Draft Coastal Strategy for the City of Albany (City of Albany, 2000) has been prepared and provides recommendations for the planning of Albany's coastline with management emphasis placed on popular destinations. The City is also guided by a Local Rural Strategy – Policy Document (City of Albany, 1996).

To date City of Albany have been involved with the following coastal management plans:

- Sand Patch Environmental Management Plan (Western Power, City of Albany, Department of Conservation and Land Management, 2001).
- Woolstores to Frenchmans Bay Foreshore Management Plan (AWMA & City of Albany, 2000).
- Cosy Corner Management Plan (City of Albany, 2000)
- Nanarup Beach Coastal Management Plan (City of Albany, 1999)
- Mount Martin Regional Botanic Park Management Plan (City of Albany 1999b)
- Cheyne Bay Management Plan (Marlok Consulting, 1999)
- Nullaki Foreshore Management Plan (City of Albany et al, 1998) and
- Nullaki Coastal Foreshore and Blowout Management Plan (City of Albany et al, 1998b)

Further coastal planning will be developed after the finalisation of the City's Coastal Strategy.

The City have also been involved in the development of the Albany Harbours Planning Strategy, Albany Harbours Planning Strategy Guidelines (AWMA & City of Albany, 1997 & 1999 respectively) and the Vancouver Waterways Project (Great Southern Development Commission, 2000).

5.4.10 Shire of Denmark (Figures 9)

The most recent coastal management plan for the Shire of Denmark is the Draft Denmark Coastal Management Plan (Department of Conservation and Environment, 1987). This document was adopted by council and implemented in the most part but never finalised by the Department of Conservation and Environment (now known as the Department of Environmental Protection).

The Shire are expected to commission the development of a new coastal management plan before the end of 2001.

5.4.11 Town Planning Schemes

All local governments within the study area have Town Planning Schemes. Town Planning Schemes guide councils and administrative staff in land-use decision-making within their boundaries. They are based on zonation and help reduce the risk of conflict during planning. They also help to plan for the future of towns. Town Planning Schemes are statutory documents and can provide a link for recommendations contained in non-statutory coastal management plans to become statutory requirements.

5.4.12 Community Initiatives

The importance of the coast to the community is reflected in the number of people and groups involved in planning and management for the coastal and marine areas in the South Coast Region.

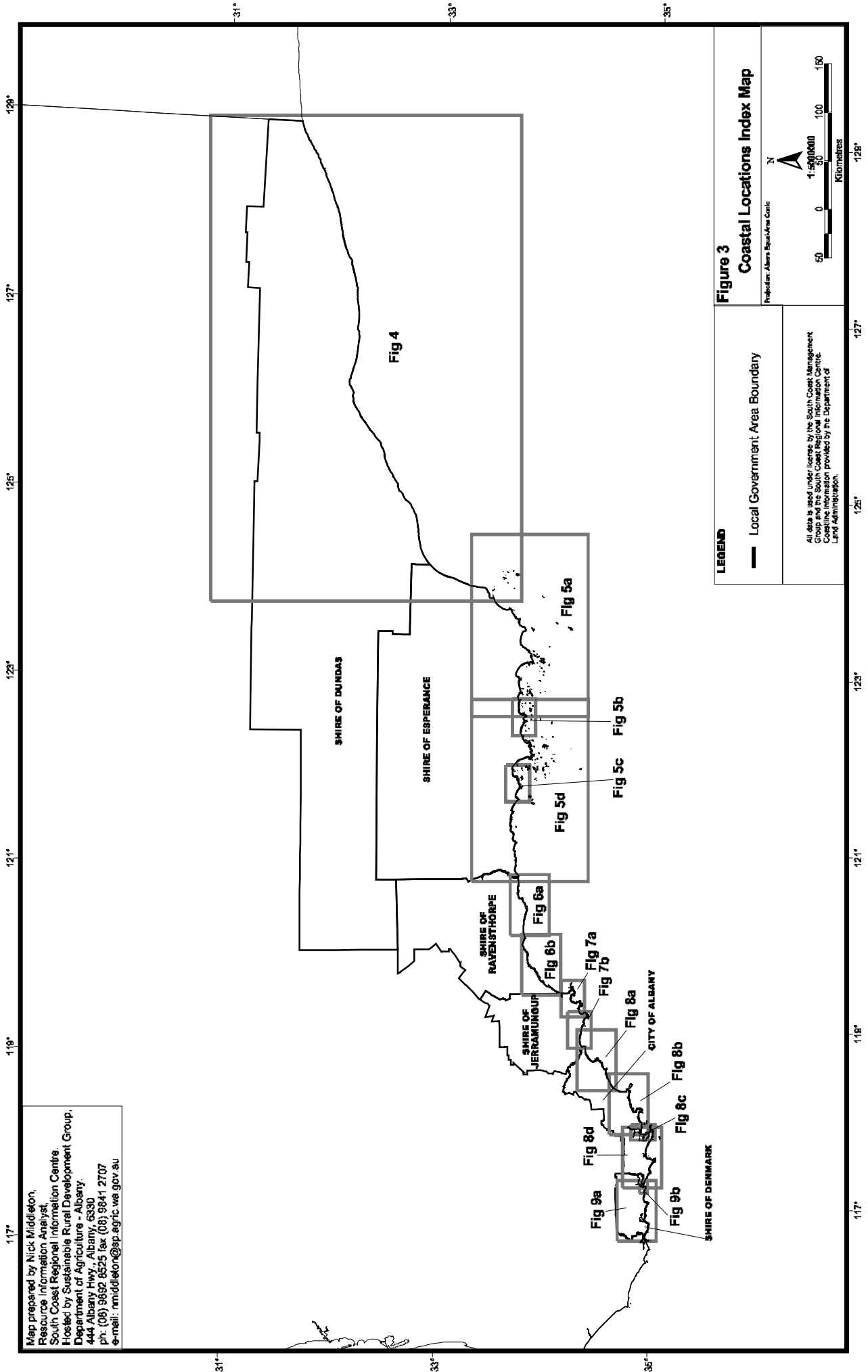
Most coastal towns have a community based organisation which assumes some responsibility for the sustainable planning and management and/or development of the coast. The opportunity exists for these groups to access funds to undertake works through the Coastwest/Coastcare program and several other Commonwealth and State initiatives such as Fishcare, Community Conservation Grants and Lotteries Commission grants. Some Local Governments also offer community grants for projects undertaken by the community within their boundary. (Refer Directory of Financial Assistance available from Department of Local Government annually).

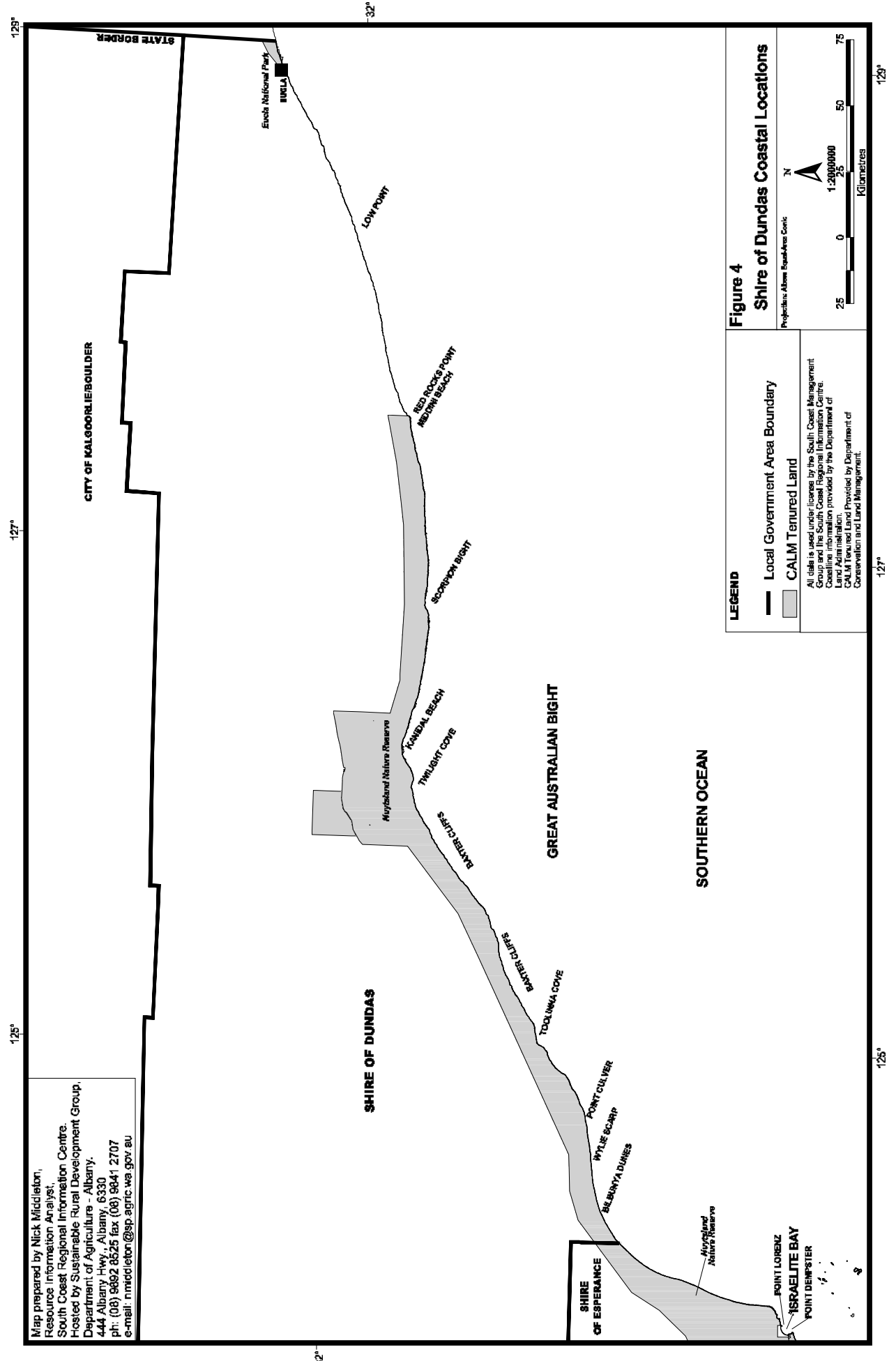
The community work in partnership with land, waterways and marine managers and have an important role in decision making and implementation of coastal works. Community have also been involved with the development of all coastal management plans and **Southern Shores**.

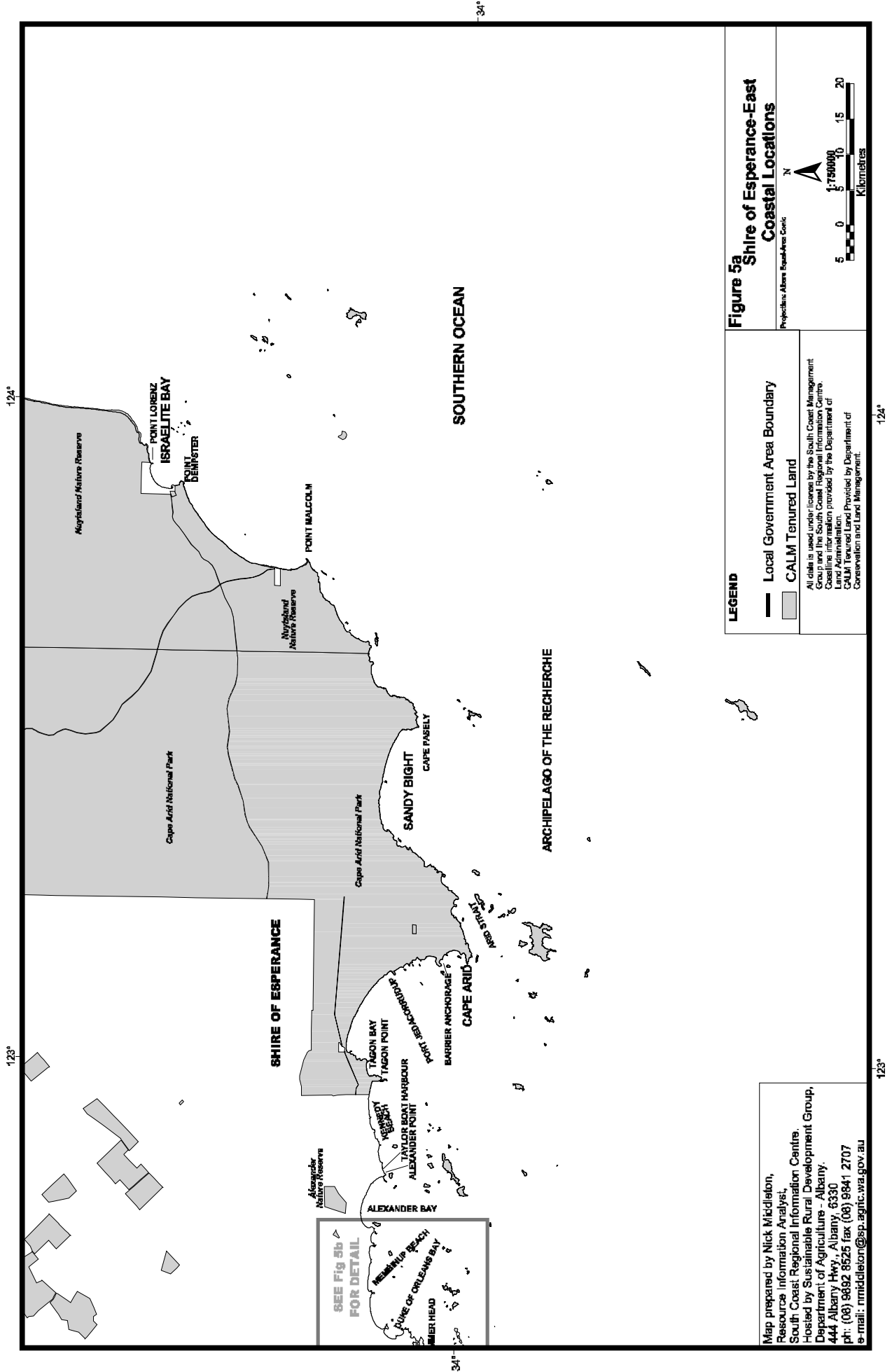


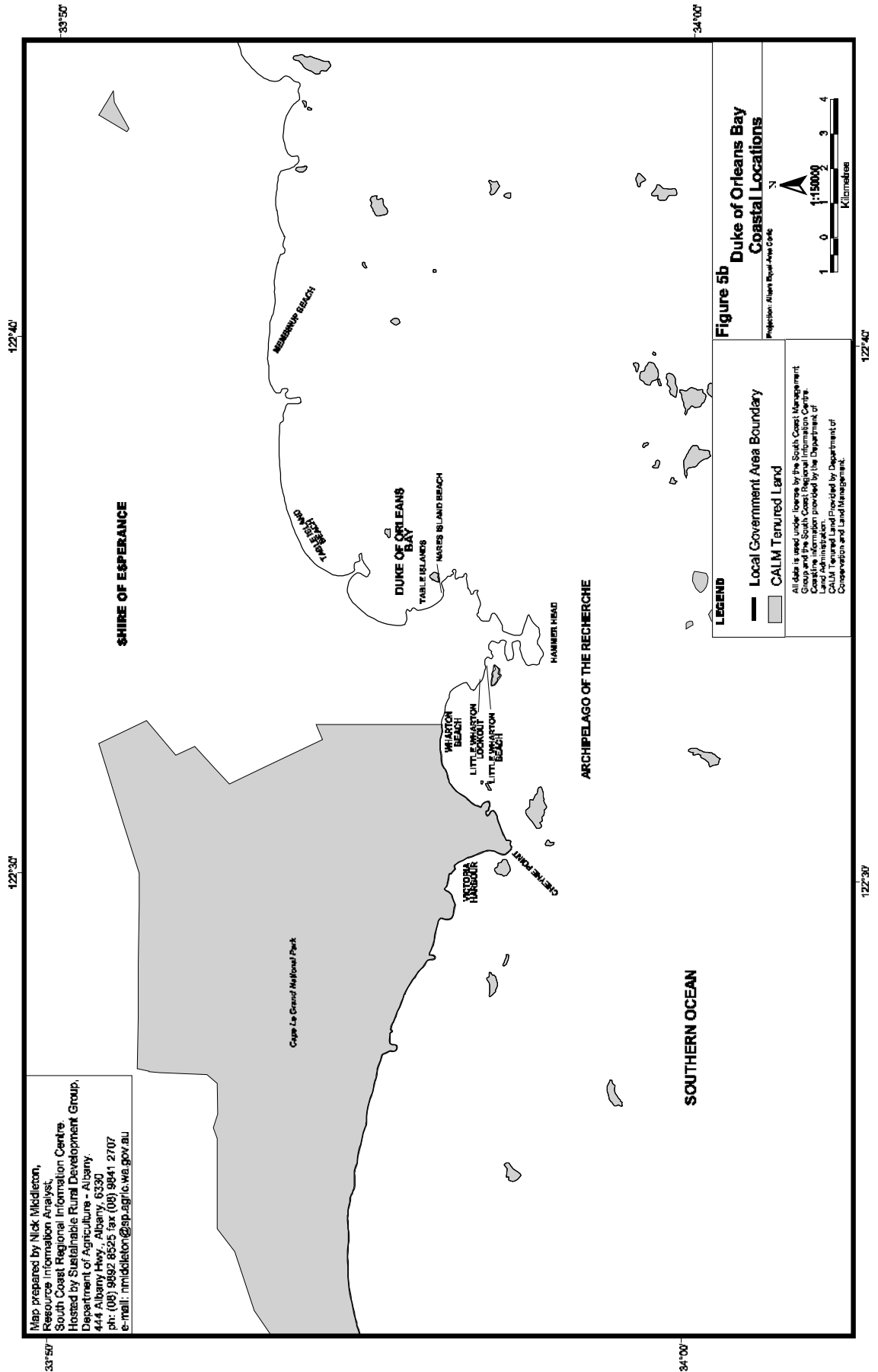
Coastwest/Coastcare acknowledged the effort of South Coast community groups at an award ceremony in November 2000.

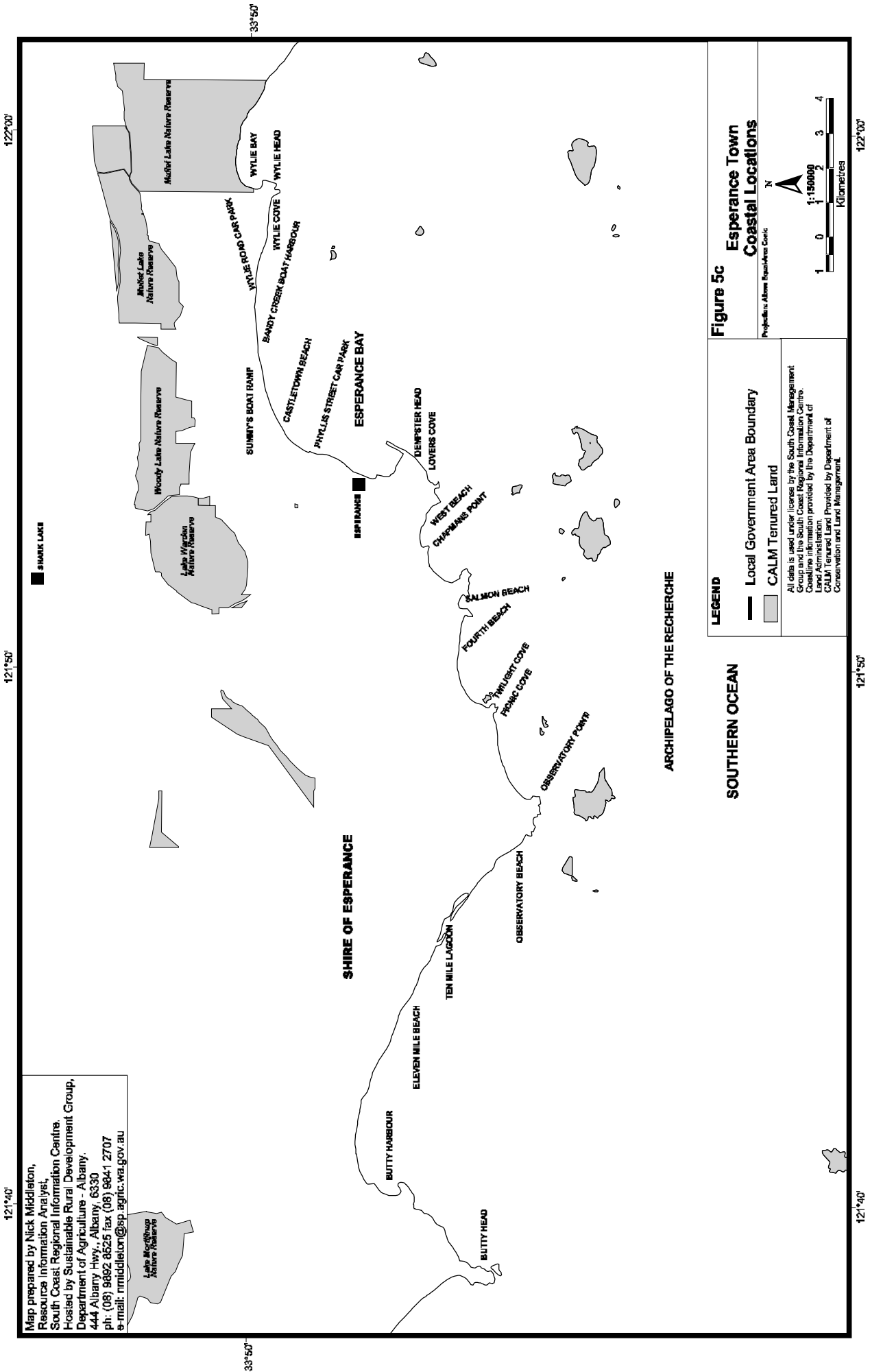
From Left: Jim Neale (Teacher, North Albany High School); Jamie Allnutt (Coastcare Facilitator); Charlie Hick (Chair SCMG, Chair Jerramungup Coastcare Committee); Barb Green (SCMG Planner); Elaine Siemer (Shire of Esperance Councillor, Esperance Coastcare); Brian Warren (Esperance Coastcare, former Shire Ranger).

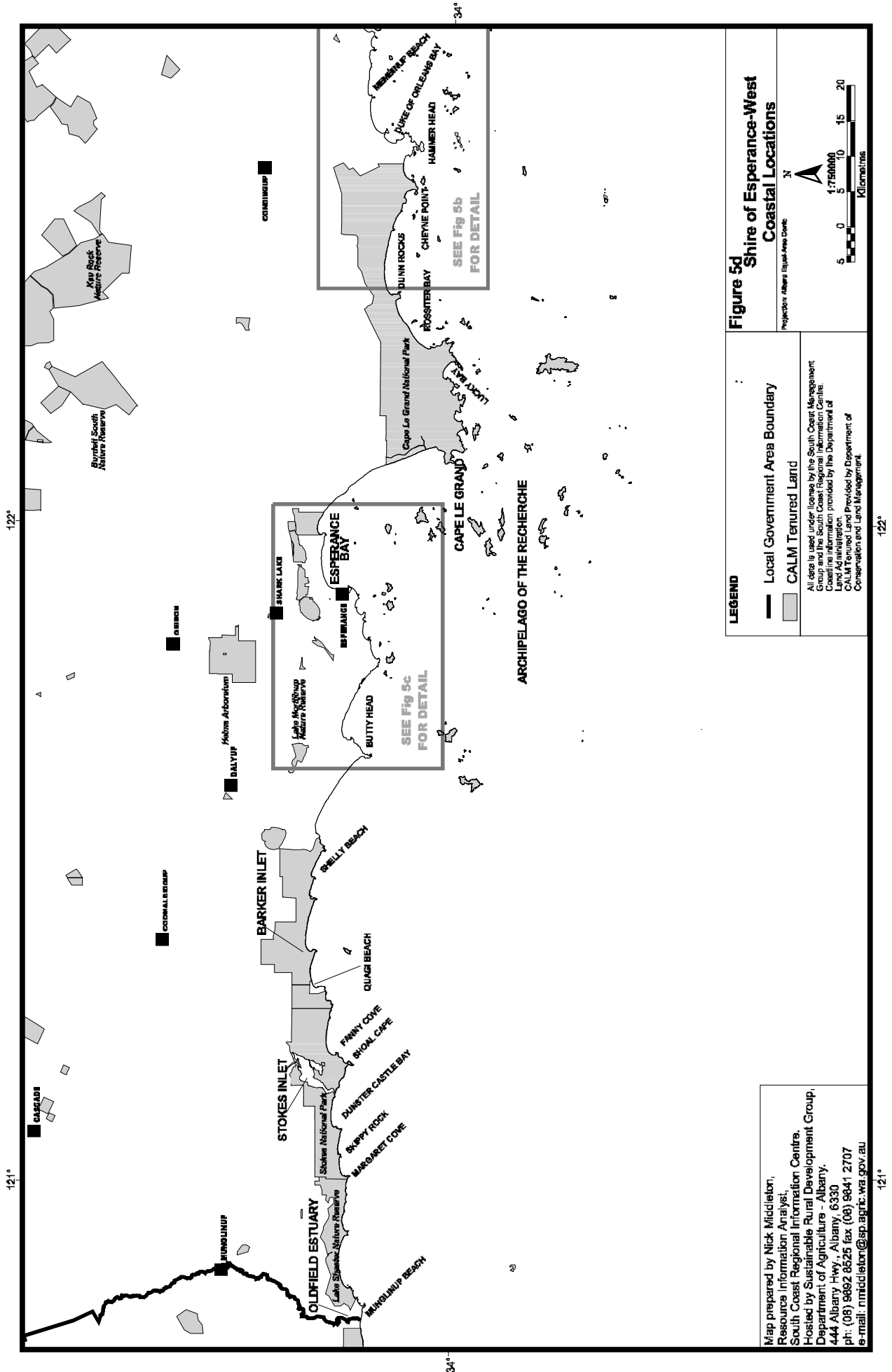


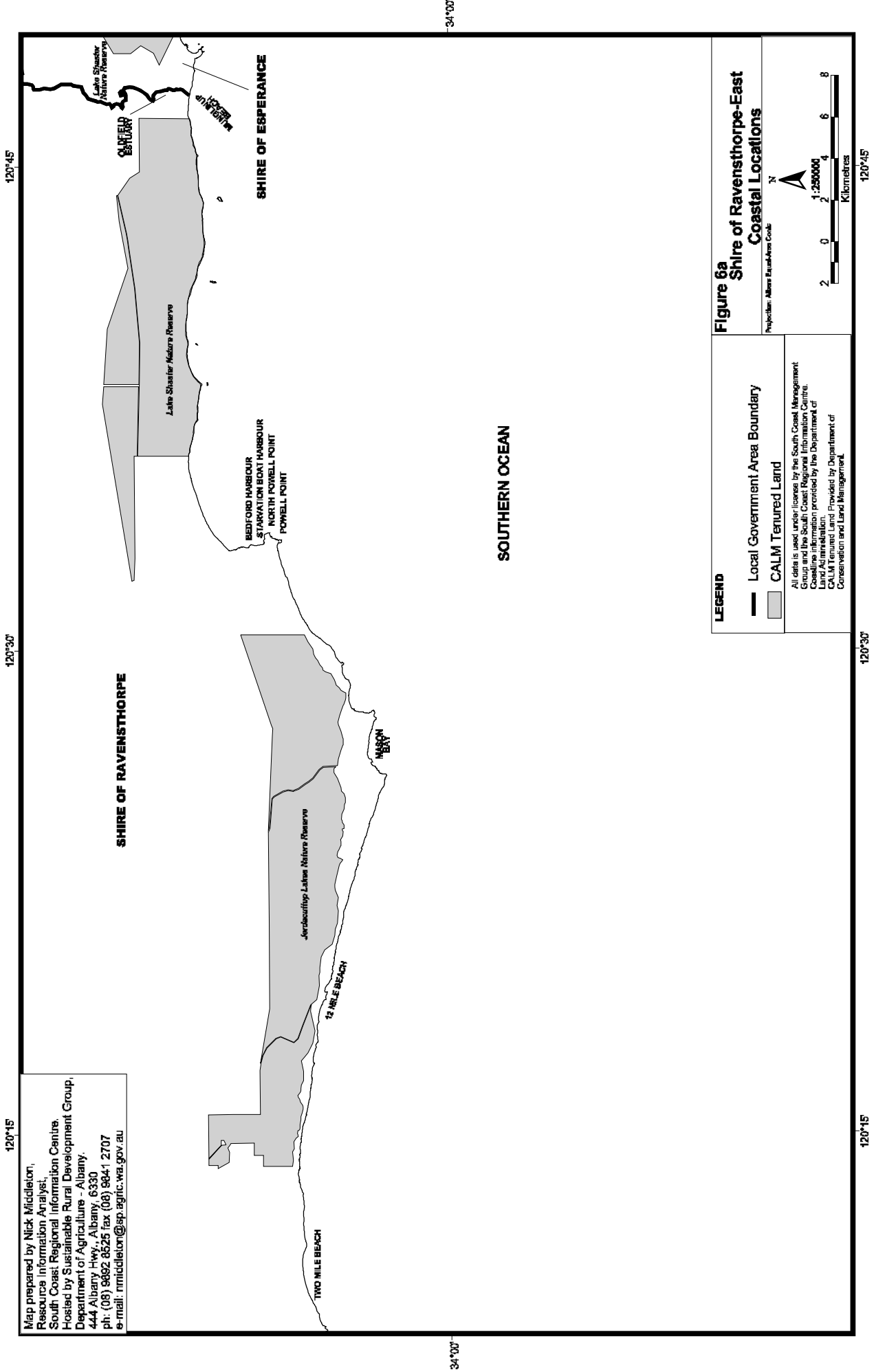


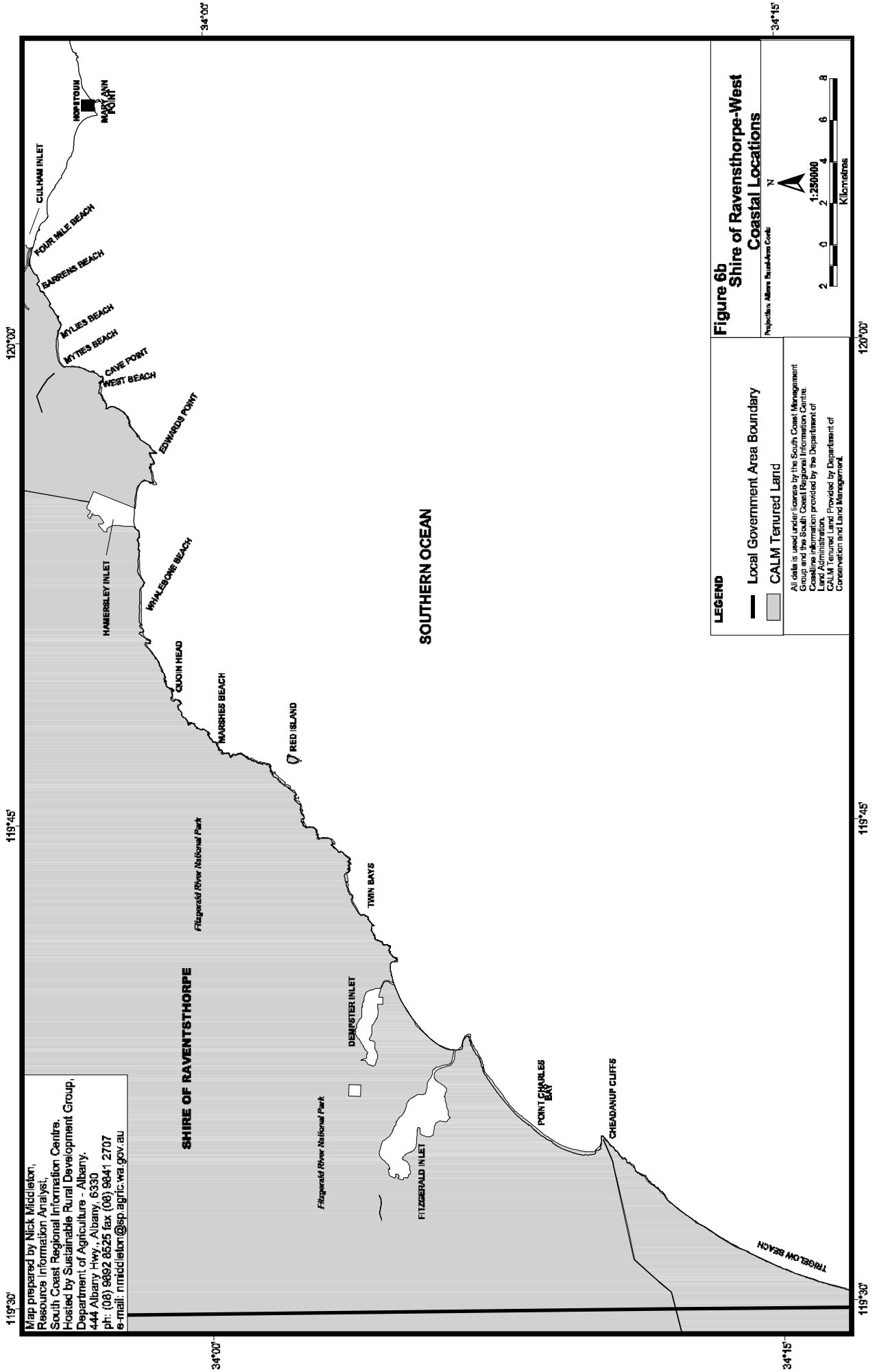


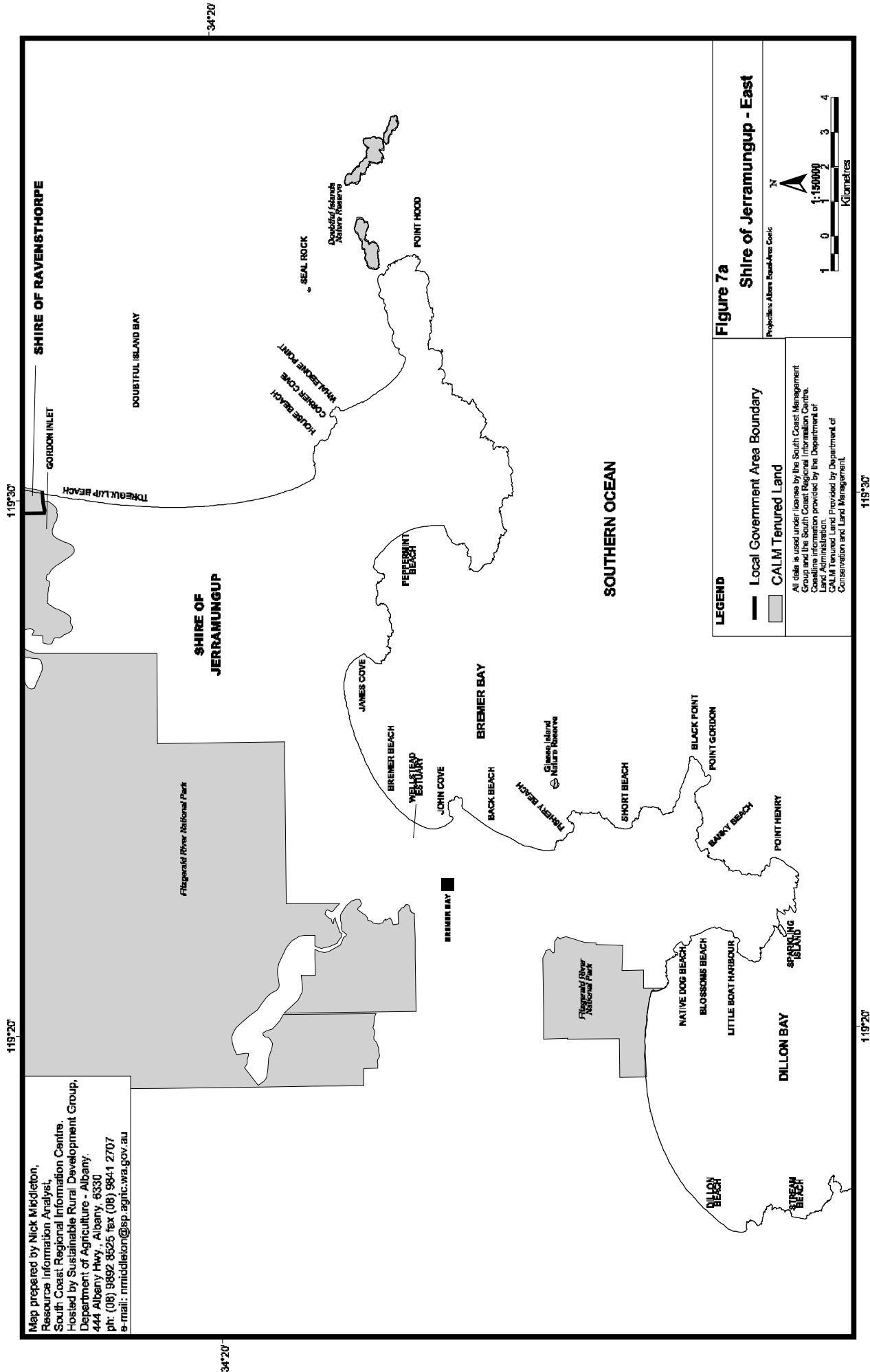


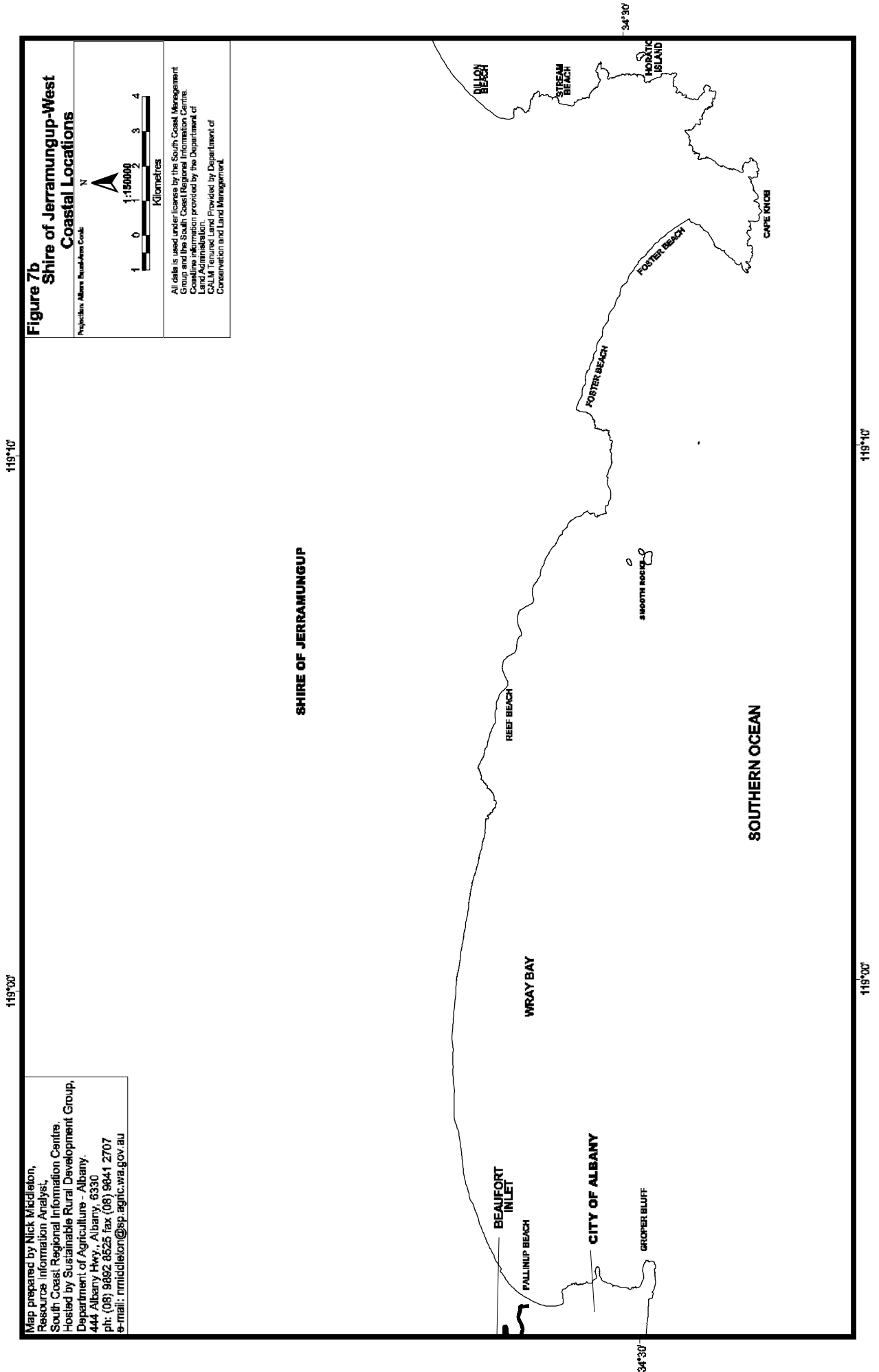


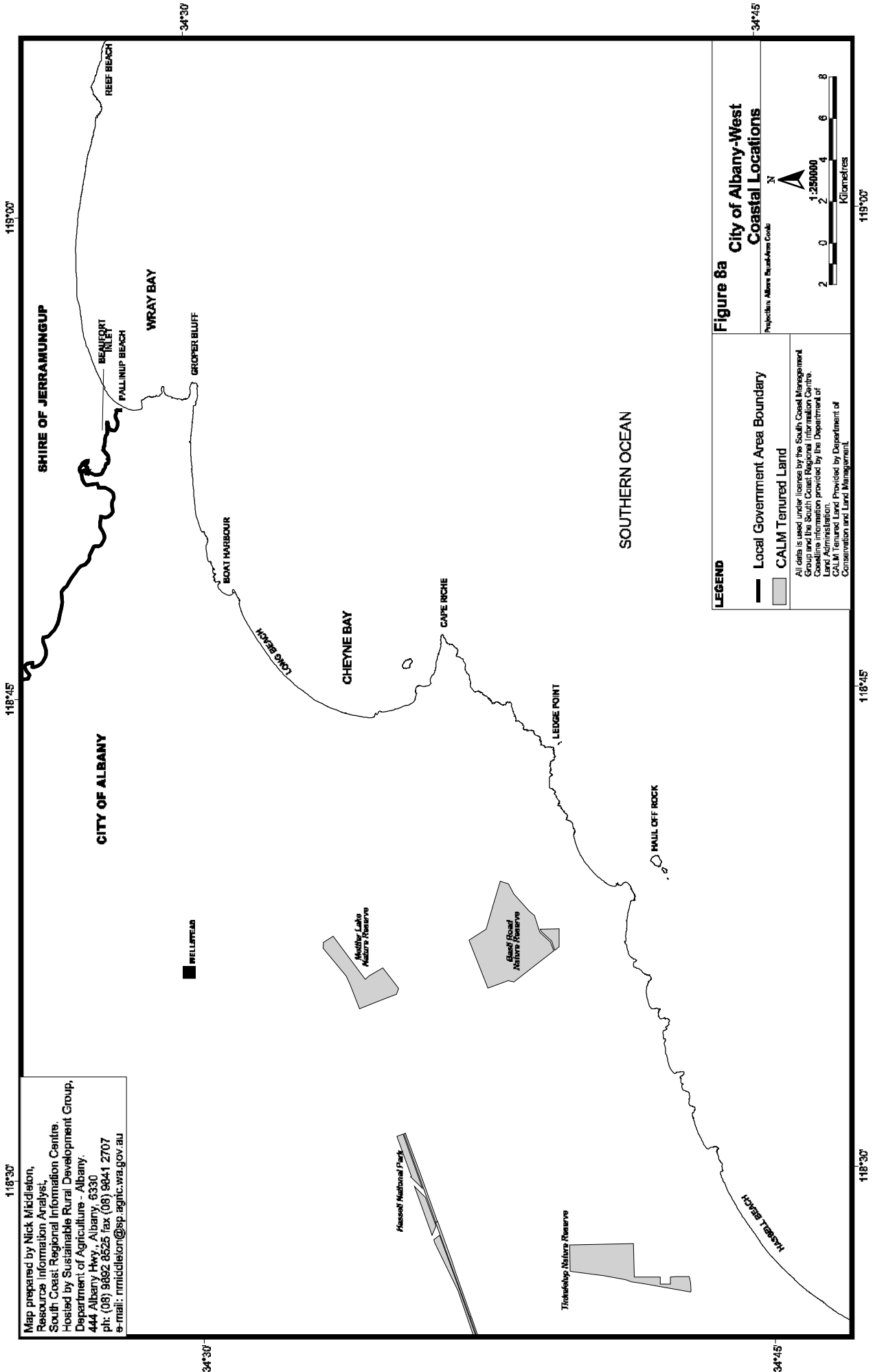


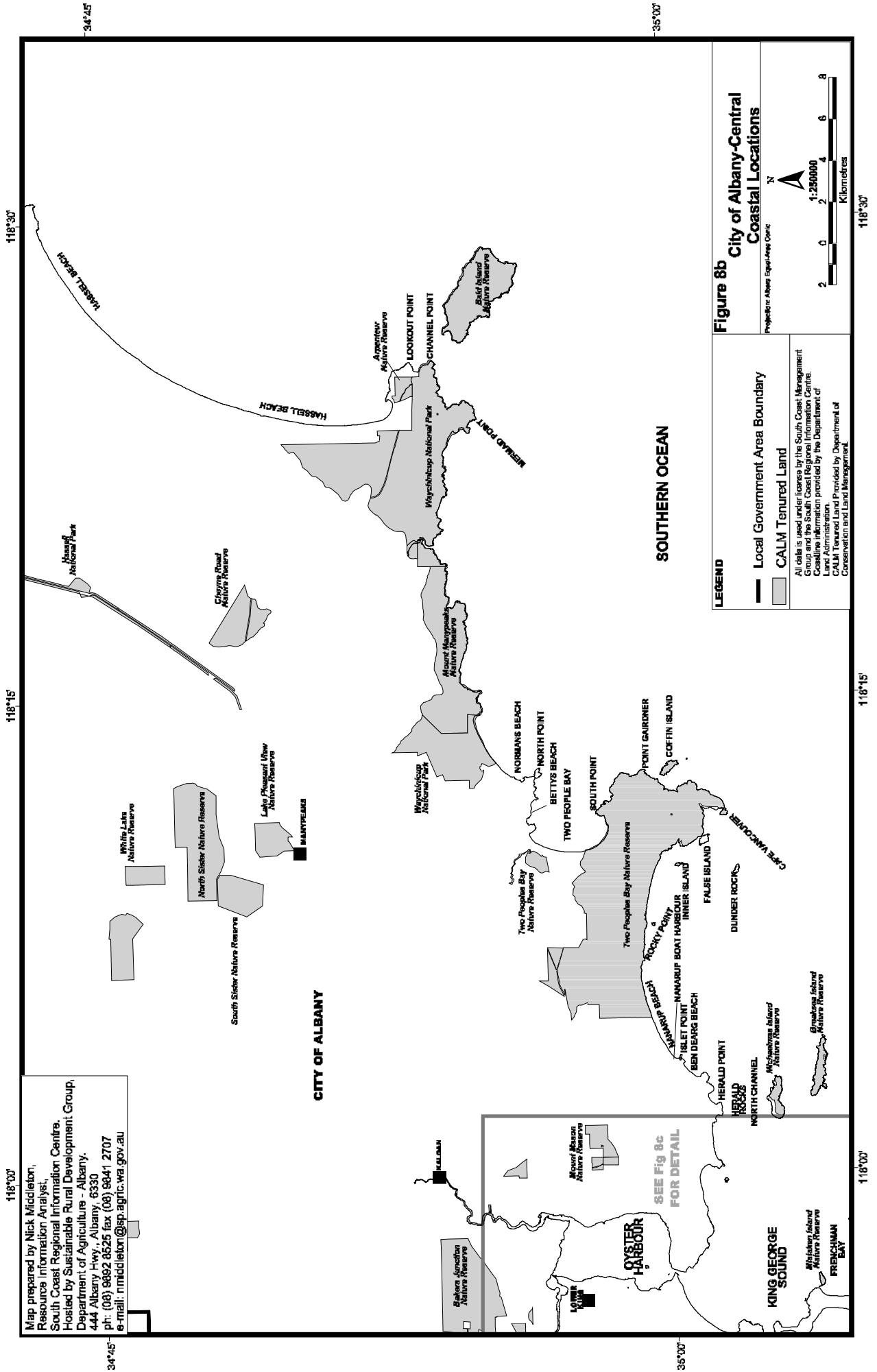












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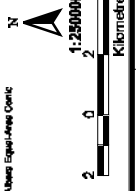
Figure 8b
City of Albany-Central
Coastal Locations

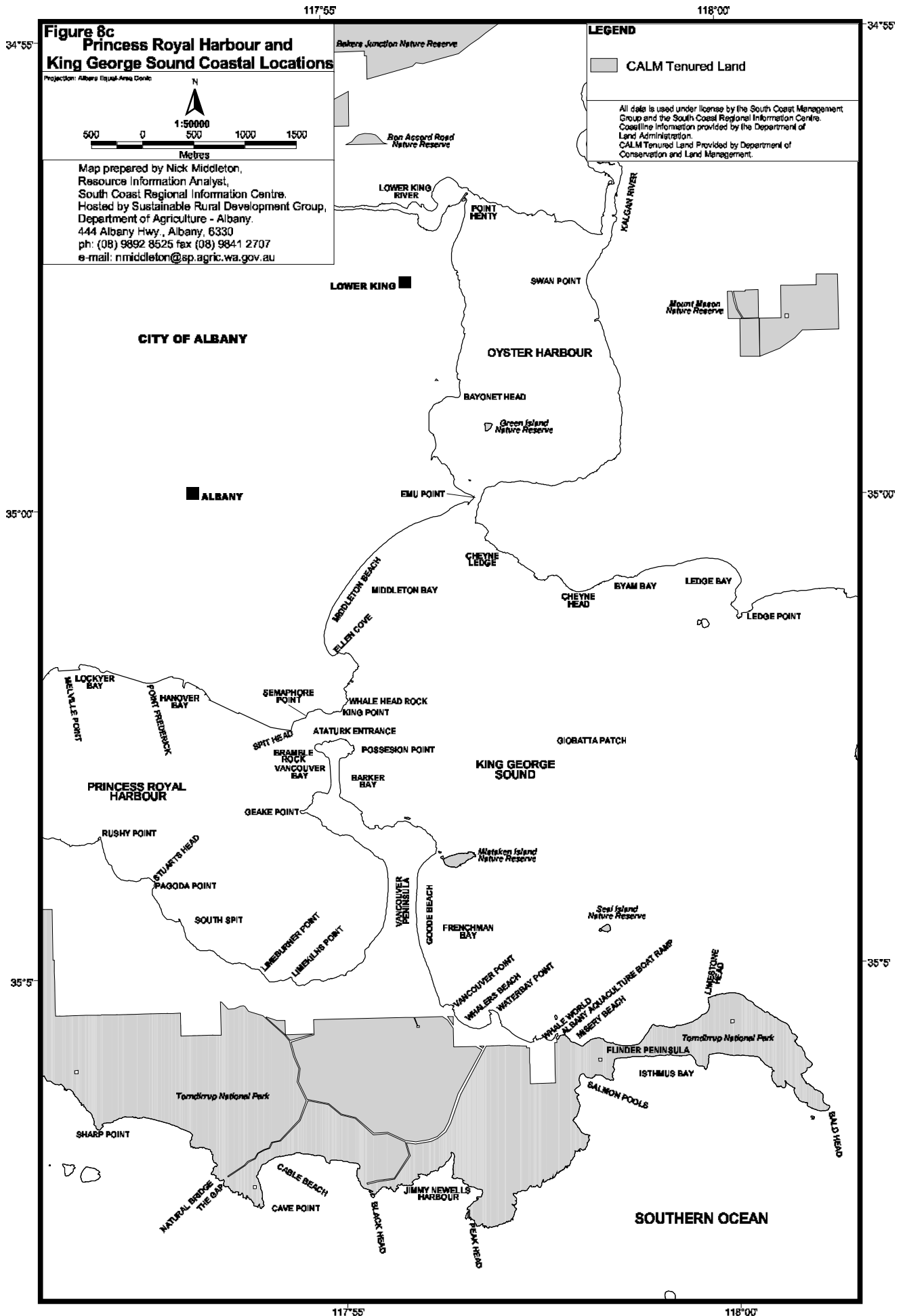
Projection: Albany Equal-Area Conic

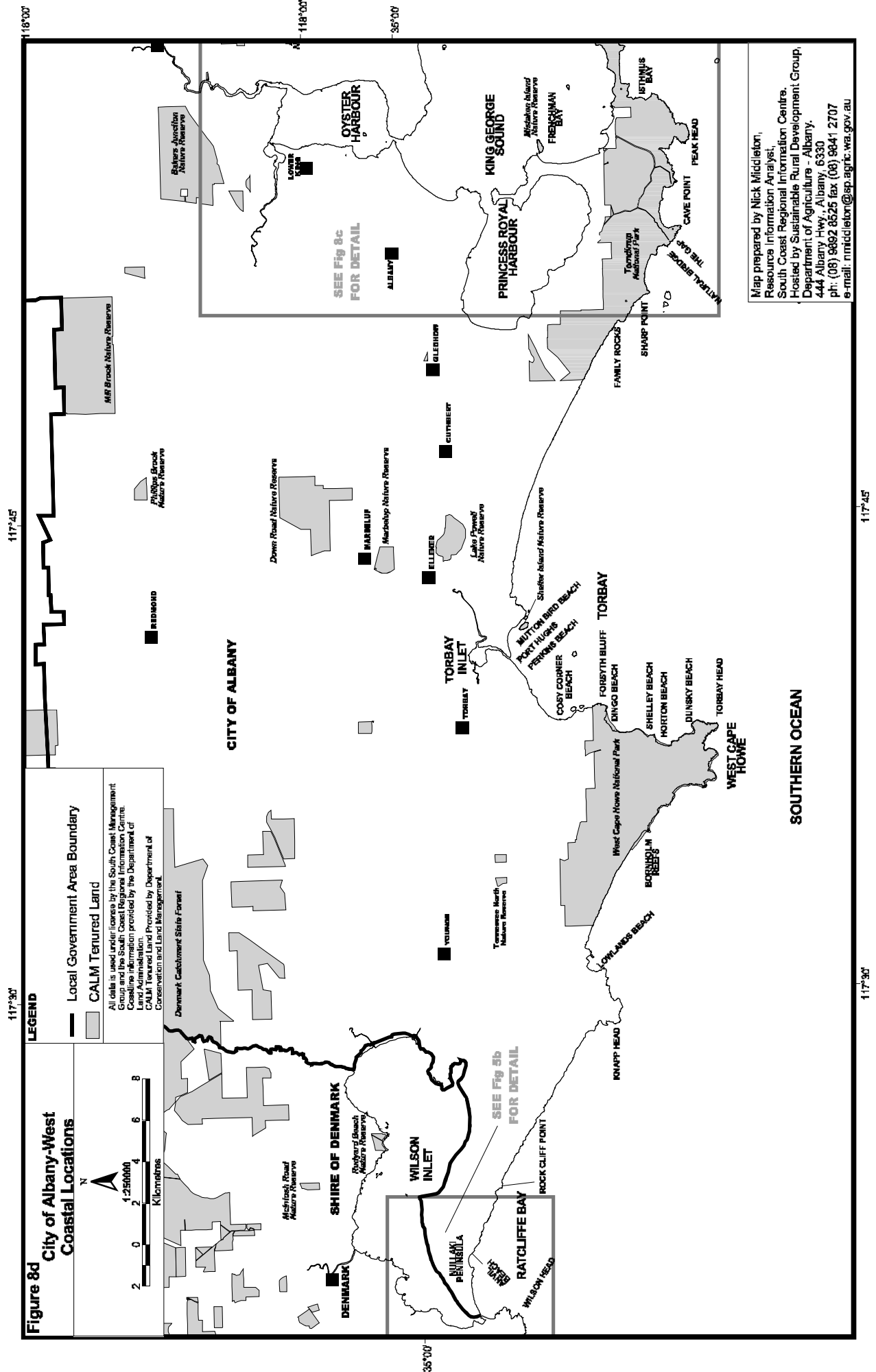
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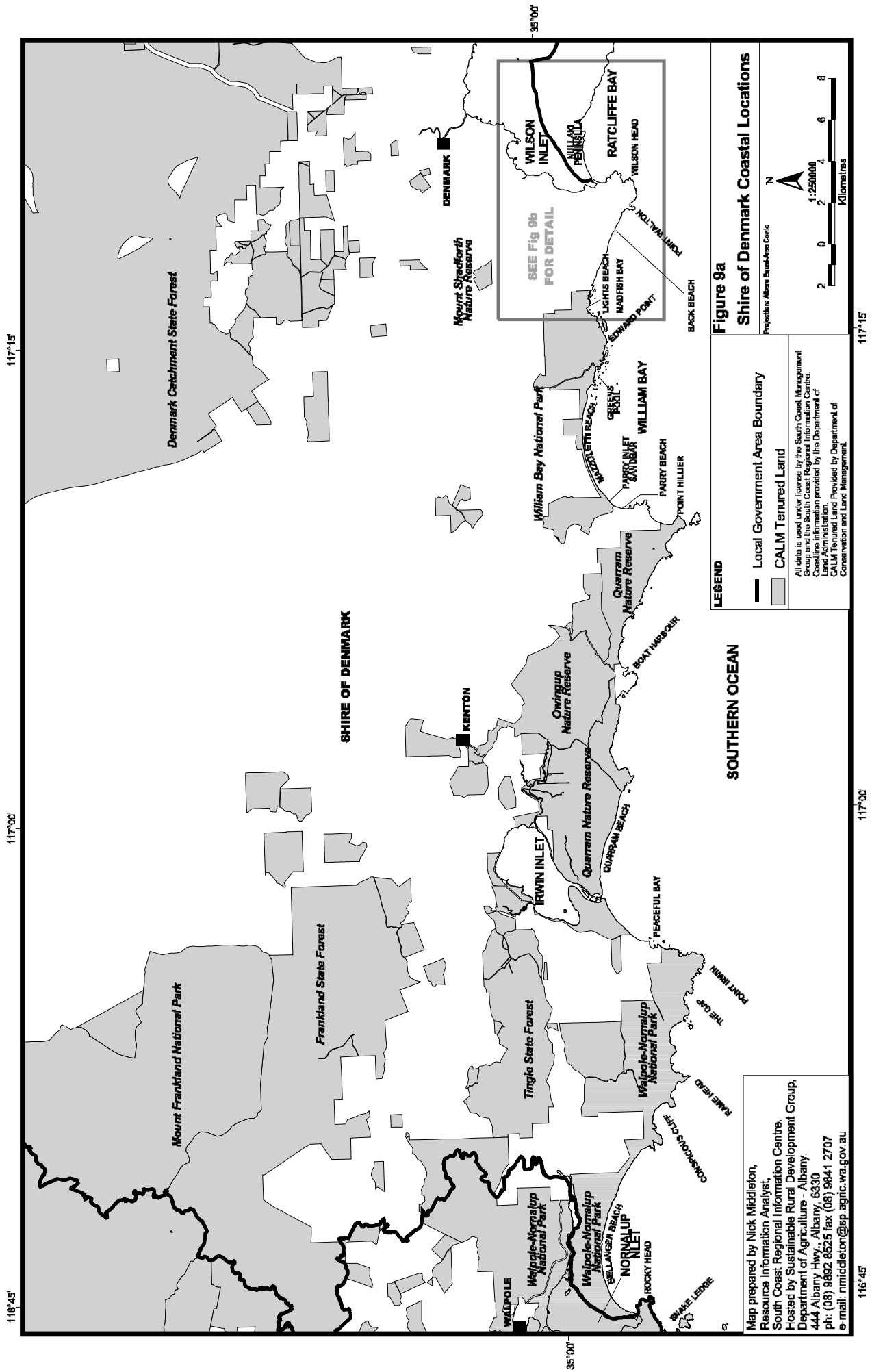
- Local Government Area Boundary
- CALM Tenured Land

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CALM Tenured Land Provided by Department of Conservation and Land Management.









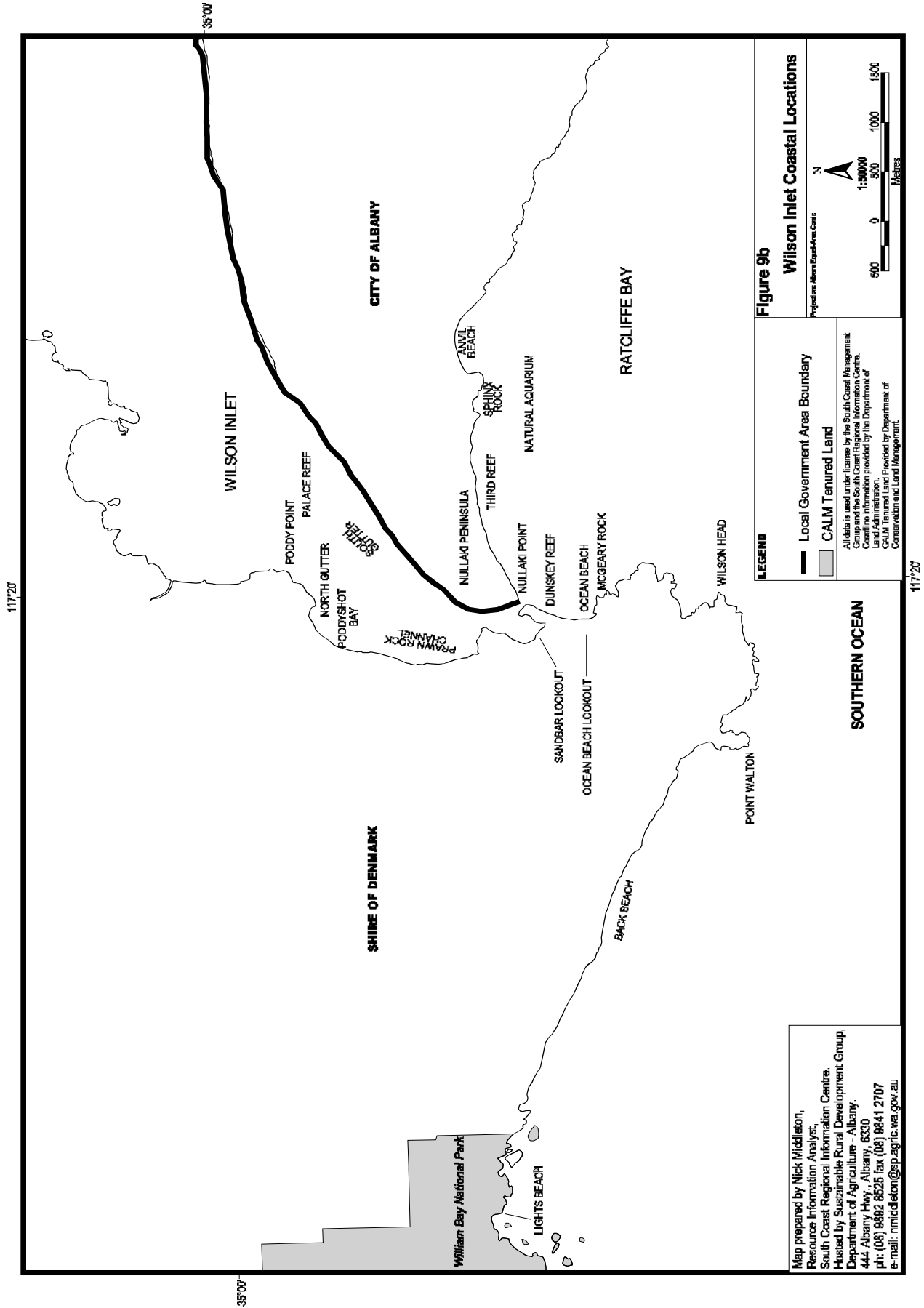


Figure 9b
Wilson Inlet Coastal Locations
 Projection: Albert Edward Area, GCS: N

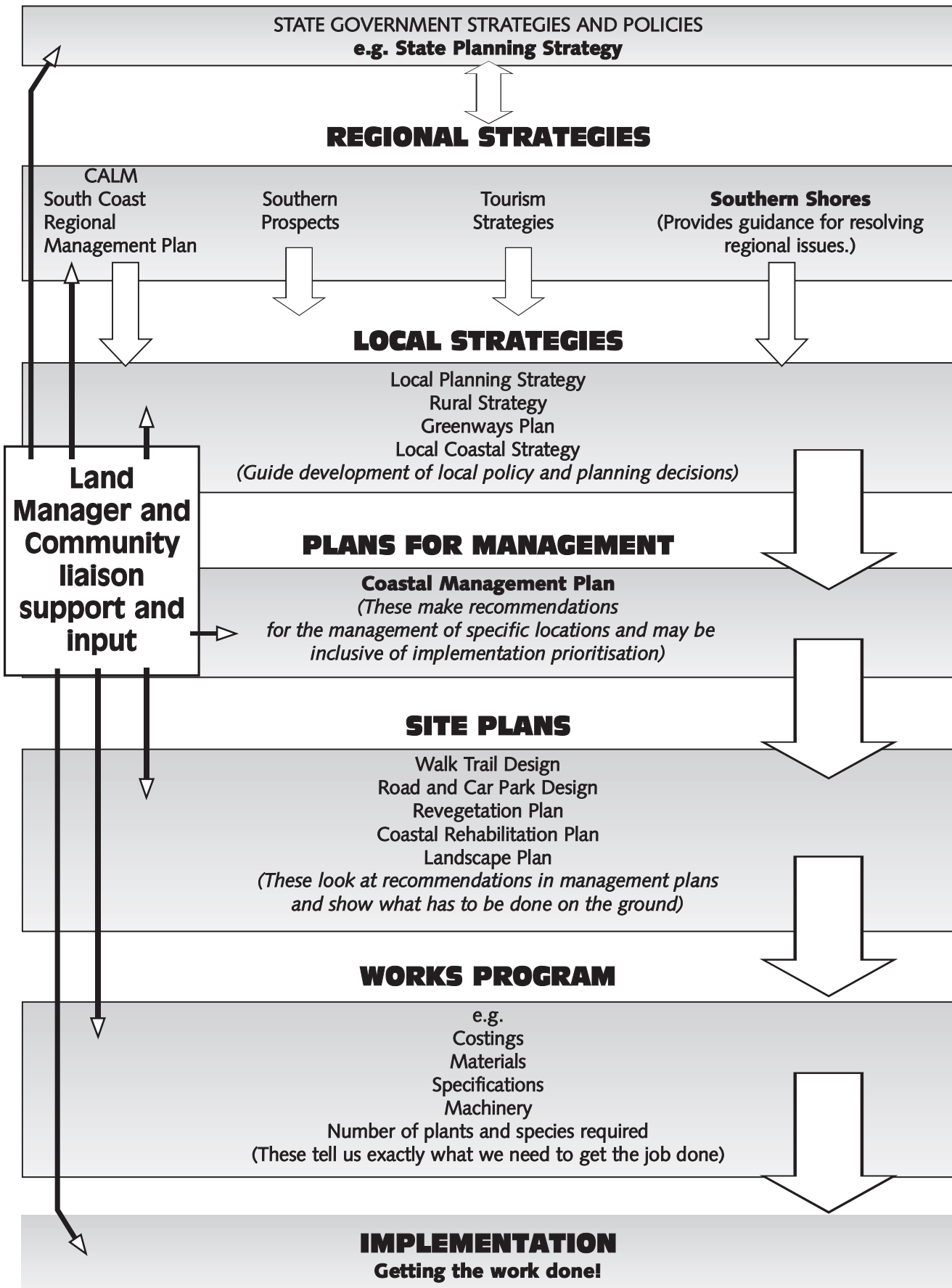
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- Local Government Area Boundary
- CALM Tenured Land

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6. PLANNING and MANAGEMENT PATHWAYS TO IMPLEMENTATION - how it can work best



7. COMMUNITY PARTICIPATION ISSUES

strategic objectives and actions



7.1 EDUCATION AND AWARENESS RAISING

KEY CONCERNS

- There appears to be limited South Coast specific coastal and marine education/awareness raising programs.
- Some members of the community are concerned that LG enforcement officers do not have the communication skills necessary for dealing with the public.
- Education is recognised as playing the most important role in protection of the coast and seas and empowerment of community, however it is not often given serious consideration by land managers.

EXISTING ACTIONS

- ✓ Coastwest/Coastcare Summer Activity Program facilitates the running of activities which promote coastal and marine awareness.
- ✓ Two coastal and marine community conferences have been held in the South Coast – ‘Wonders of the Southern Ocean’ and ‘Riches of the Recherche’.
- ✓ FWA are keen to participate in educational programs aimed at increasing the general level of awareness about the Agency’s role in fisheries and aquatic resource management.
- ✓ **Southern Shores** provides information on issues affecting the coast and positive solutions for those issues.
- ✓ The South Coast Management Group were successful in gaining seed funding to host the inaugural WA State Coastal Conference (Esperance, 2001) which will assist with transfer of coastal and marine knowledge on a state wide basis.

STRATEGIC OBJECTIVE



Education and awareness raising programs will be developed which specifically target the south coast community.

ACTIONS	
	A. Develop a South Coast specific coastal and marine interpretation and education program at the regional level designed to facilitate knowledge transfer to all sectors of the community (Cw/Cc, CALM, WRC, FWA, AgWA, SCMG, LG’s). HIGH
	B. Involve the community in coastal and marine planning and management discussions to facilitate knowledge transfer and awareness raising (Cw/Cc, CALM, WRC, FWA, AgWA, LG’s, DoLA, SCMG, Community). HIGH/ONGOING
	C. Involve enforcement staff in training programs which empower them to deal with the public in a positive educational and awareness raising role (LG’s). HIGH
	D. Install robust interpretive and directional signage at appropriate locations to enhance visitor experience and raise awareness (CALM, FWA, AgWA, WRC, DoLA, LG’s, Community). HIGH/ONGOING
	E. Install robust signage indicating the name of each coastal location along the south coast (LG’s, Community) HIGH
	F. Incorporate signage design in a coastal management specification manual (SCMG, LG’s, Community) HIGH
	G. Encourage each Local Government to develop a unique signage design, construction method and appearance for their coastal signage which is easily recognisable as theirs by coastal users (SCMG, LG’s, Community) HIGH
	H. Support the development of ‘Marine Discovery Centres’ in both Esperance and Albany to enhance education and awareness of the marine and coastal environments (GEDC, GSDC, SCMG, LG’s, FWA, CALM, WRC, WATC, ERTA, GSTA, Educational Institutes, Industry, Community). MEDIUM
	I. Financially support the development of educational programs and their delivery by coastal and marine planning and management professionals (Cwlth, State, SCMG, LG’s, Community). ONGOING
	J. Encourage the publication of informative material which enhances visitor awareness of coastal and marine issues and location attributes (SCMG, LG’s, Community, Cw/Cc). HIGH/ONGOING
	K. Financially support the position of Coastwest/Coastcare’s Regional Coastal Facilitator on an annual basis to assist in the perpetuation of coastal and marine education and awareness raising initiatives (Cwlth, State, LG’s, Community, Cw/Cc). HIGH .

7.2 REGIONAL COASTAL COMMUNITY REPRESENTATION

KEY CONCERNS

- Many community representatives involved in coastal planning and management at the local level feel disconnected with State processes.
- State coastal and marine committees which convene in Perth appear to be distanced from regional issues and concerns with under representation from the region leading to reduced confidence in their activities.

EXISTING ACTIONS

- ✓ SCRIPT are represented on the Natural Resource Management Regional Chairs meetings with one regional chair representing all regions in the State in discussions with State Government ministers.

STRATEGIC OBJECTIVE



Regional representation on State committees and advisory groups concerned with coastal and marine issues shall be sought.

ACTIONS	<p>A. Determine which State government departments convene committees which discuss coastal and marine issues (SCMG, LG's, WAMA, Community). HIGH</p> <p>B. Raise awareness of relevant State government departments that regional community representation for coastal and marine issues is desired (SCMG, LG's, WAMA, Community). HIGH</p> <p>C. Lobby State Government to provide financial and logistical support for regional community representation on State committees (SCMG, LG's, WAMA, Community). ONGOING</p>
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7.3 CREATION OF A REGIONAL COASTAL IDENTITY

KEY CONCERNS

- The separation of the South Coast into the Great Southern and the Goldfields Esperance sub regions limits the development of a regional identity which can be adopted to promote greater ownership and pride in the region by the South Coast community as a whole.

EXISTING ACTIONS

- ✓ Esperance Regional Tourism Association promotes the concept of the 'Secret South'.

STRATEGIC OBJECTIVE



A regional identity will be developed to promote the many values of the South Coast Region, including its people.

ACTIONS	<p>A. Discuss and support the development of a regional identity which fosters a sense of pride in the South Coast community and which can be used to promote marketing and commercial development consistent with the aims of the community across the whole Region (SCMG, SCRIPT, LG's, CALM, WRC, FWA, GSDC, GEDC, ERTA, GSTA, Community). LOW</p>
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7.4 COASTAL COMMUNITY SUPPORT

KEY CONCERNS

- The Regional Coastal Facilitator is located in Albany and has limited resources to undertake work in the eastern part of the region.
- The Esperance community have aired their disappointment that they would like more support from the Regional Coastal Facilitators position.
- Community groups, of all sizes, have the capacity to attract and have attracted, significant amounts of funding to coastal towns. However, none of this funding can be used to support the administration of these groups.

EXISTING ACTIONS

- ✓ The position of Regional Coastal Facilitator is expected to continue until mid 2002.
- ✓ Regional Coastal Facilitators promote community awareness of coastal and marine issues and facilitate liaison between community, industry, State and Local Government.
- ✓ The south coast Regional Coastal Facilitator supports community involvement in planning and management of the coast and seas.
- ✓ SCMG's Regional Coastal Planner provides support to Local Government and community involved in coastal management and planning when requested.

STRATEGIC OBJECTIVE



The community will be supported and encouraged to have greater involvement in coastal and marine planning and management.

ACTIONS	
	<p>A. Facilitate meaningful public participation and consultation which promotes partnerships between Commonwealth, State and Local Government, industry, commercial enterprise and community which fosters co-responsibility in managing the coast and seas (Cwlth, State, SCMG, LG's, industry, business, community). ONGOING</p> <p>B. Lobby Commonwealth and State departments responsible for the Coastwest/Coastcare program, for an additional coastal facilitator to be based in Esperance (SCMG, LG's, Community). LOW</p> <p>C. Continue to financially support the position of Regional Coastal Facilitator to ensure effective whole of community support is provided for coastal towns throughout the South Coast Region (LG's, Cw/Cc, Community). ONGOING</p> <p>D. Lobby Commonwealth and State departments responsible for the Coastwest/Coastcare program to continue its support of community involvement in coastal and marine planning and management (SCMG, LG's, Community). ONGOING</p> <p>E. Provide an annual sum of \$200 to community groups requiring assistance with insurance and administrative costs where the community group is incorporated and is actively undertaking coastal/marine management/rehabilitation works on behalf of land/sea manager (LG's, FWA, DoLA, WRC, funding programs). HIGH/ONGOING</p> <p>F. Develop training programs for CALM Honorary (volunteer) Rangers (CALM, Community). ONGOING</p> <p>G. Develop training programs to support the creation of a voluntary coastal ranger scheme designed to assist Local Government in managing Shire/City reserves (SCMG, LG's, Cw/Cc). MEDIUM</p> <p>H. Provide voluntary coastal rangers with appropriate clothing, footwear and sun protection (LG's, DoLA, WRC). MEDIUM</p> <p>I. Encourage land/sea management staff to attend community group meetings, gatherings and events to foster partnerships and provide support (SCMG, CALM, FWA, WRC, AgWA, DoLA, LG's). HIGH/ONGOING</p> <p>J. Support community initiatives and involvement in implementing management and rehabilitation plan recommendations (LG's, CALM, FWA, WRC, AgWA, DoLA, SCMG). HIGH/ONGOING</p> <p>K. Increase the community's capacity for undertaking on-ground coastal management works through the development of a regional coastal management specification manual which provides clear guidance on construction materials and methods for a range of coastal management infrastructure (SCMG, LG's, Cwlth, Cw/Cc, Community). HIGH</p>

7.5 ACCESS TO GRANT FUNDING FOR ON-GROUND COASTAL MANAGEMENT WORKS

KEY CONCERNS

- Because of resource, time and population constraints land and sea managers and the community in the south coast are often only able to apply for funding for one project each per year, particularly in the smaller towns, which tends to limit the amount of on ground funding support they can receive.
- Small communities often have seasonal tourist pressure on their coast from people who do not directly contribute to the maintenance of coastal locations or towns.
- Amount of time between submission of grant applications and receipt of funds often involves long delays and sometimes loss of commitment and energy by applicants, particularly for the Coastwest/Coastcare program.
- Some funding bodies discourage or do not allow the employment of project leaders/coordinators.

EXISTING ACTIONS

- ✓AWMA & City of Albany and WIMA & Shire of Denmark have a 3 year commitment to fund endorsed foreshore management plans.
- ✓Coastwest/Coastcare
- ✓Coast and Clean Seas Program

STRATEGIC OBJECTIVE



Commonwealth and State funding bodies will be made aware of the difficulties facing small communities when applying for grant funds.

ACTIONS	A. Encourage funding organisations to review their qualification criteria for coastal towns which have a small population but high visitor numbers, reduce the lag time between submission and approval to less than 6 months and recognise that employment of project leaders may be crucial to success in some cases (SCMG, LG's, Community). HIGH/ONGOING
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7.6 INSURANCE FOR VOLUNTEERS

KEY CONCERNS

- Many voluntary community groups are unfinancial beyond grant funding (which does not include insurance premiums) and finding money to take out insurance for themselves for short or long periods of time is a financial burden.
- Insurance companies appear to be reluctant to become involved in insuring amateur divers undertaking marine survey work or if they do, the premiums are extremely high.
- Private boat owners providing transport for volunteer community group members undertaking marine surveys are required to take out insurance to cover passengers. This requirement is limiting the use of private boats in marine survey work and increasing survey costs substantially when surveyed vessels are chartered for the work.

EXISTING ACTIONS

- ✓Inexpensive insurance cover (~\$75) for Landcare/Coastcare groups has been organised with an Insurance Broker in association with Landcare Australia (Contact Landcare or Coastcare for details).
- ✓CBUMS (Esperance), have secured inexpensive group insurance to cover them for marine surveys (Refer CBUMS for more information).
- ✓Volunteers registered with CALM or FWA are automatically insured when undertaking approved activities.

STRATEGIC OBJECTIVE



Community groups or individuals undertaking on-ground or in-sea work will have insurance cover to protect them against loss and/or damage.

ACTIONS	A. Promote the development of an inexpensive nationwide or state wide insurance cover which is designed for community groups or individuals undertaking voluntary work in the marine environment (Cwlth, SCMG, LG's, CALM, WRC, FWA, Community). HIGH B. Encourage land and sea managers working with voluntary community groups or individuals to assist groups in obtaining appropriate insurance for specific projects (Cw/Cc, LG's, CALM, WRC, AgWA, FWA, Community). HIGH
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7.7 COMMUNITY INVOLVEMENT IN FAUNA SURVEYING

KEY CONCERNS

- Community involvement in fauna surveying, both on and off conservation reserve, is limited.
- There is concern over the mortality rate of trapped and handled wildlife by inexperienced volunteers, with an estimated 10% of small mammals or birds dying after the experience.
- CALM are cautious in providing trapping and handling permits to volunteer groups who wish to undertake surveys and who do not have appropriate technical support from CALM officers or people known to be experienced and do not have properly designed surveys that will provide useful information.
- There are a limited number of CALM staff and experienced biologists to assist volunteer groups with surveying and monitoring of fauna.
- The limitations with having volunteers undertaking fauna surveys may result in many areas remaining unstudied for many years.
- Community may feel disenfranchised from involvement in fauna studies.

EXISTING ACTIONS

- ✓ CALM endeavours to involve volunteers in many fauna surveys they undertake.
- ✓ Wildlife Conservation Act regulates the issuing of permits and licenses for the benefit of fauna protection.

STRATEGIC OBJECTIVE



Voluntary organisations and individual involvement in fauna surveying on and off conservation estate will be supported.

ACTIONS	<p>A. Seek funding for the employment of a 'Nature Conservation Facilitator' dedicated to assisting community capacity building in regard to fauna surveying both on and off reserve (SCMG, SCRIPT, CALM, GSDC, Community). HIGH</p> <p>B. Continue to support volunteers in gaining the skills necessary to undertake scientifically relevant fauna surveying both on and off conservation estate (CALM). HIGH/ONGOING</p> <p>C. Undertake and invite training and capacity building to obtain skills necessary to carry out scientifically relevant fauna surveying both on and off conservation estate (Community). ONGOING</p> <p>D. Encourage and support community involvement in non-invasive fauna surveys and studies (eg. frog presence/absence can be determined by listening for calls) (CALM, LG's, WRC, Community). ONGOING</p>
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7.8 CONTRACTUAL EMPLOYMENT ARRANGEMENTS - Community support programs

KEY CONCERNS

- A large proportion of science, planning and administration professionals currently working in the south coast region are employed by contractual employment arrangements through the Commonwealths Natural Heritage Trust programs.
- The community, in general, are finding that employment by contractual arrangements leads to discontinuity in the availability of expertise from some Government Departments and also leads to many experienced professionals leaving the region entirely to search for further work when contracts expire.
- Contract workers can become despondent about their future work opportunities and are often unable to plan ahead in their work situations or home life, particularly under short term employment arrangements.

EXISTING ACTIONS

- ✓ Agencies seek funding continuation for some project officers.
- ✓ Community Support for Natural Resource Management. Future Frameworks: Future Needs (AgWA, 2000) discusses contractual arrangements.

STRATEGIC OBJECTIVE



Government agencies will retain the services of science, planning and administration professionals on a permanent basis where necessary and appropriate.

ACTIONS	<p>A. Lobby State and Commonwealth Government to extend contract time frames and offer permanent appointments where necessary and appropriate to support continuity of access to expertise within the Region (SCMG, SCRIPT, LG's, Community). HIGH/ONGOING</p> <p>B. Make provision to ensure there is adequate financial support, suitably trained and experienced personnel, and appropriate technical equipment for coastal planning and management efforts in the South Coast Region (Cwlth, State and Local Government). HIGH/ONGOING</p>
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7.9 YOUTH AWARENESS

KEY CONCERNS

- Some youth are cynical about the ability of the current generation to plan for and manage the coast and seas. This lack of confidence, in the long term, could contribute to cynical attitudes prevailing into adulthood resulting in the deterioration of community and environmental health.

EXISTING ACTIONS

- ✓ Coastcare facilitate youth involvement in discussion and awareness raising of coastal and marine issues.
- ✓ Green Skills and Land for Wildlife provide discussion forums and training programs for young participants
- ✓ FWA has a high profile, ongoing community awareness program that involves many young volunteers (VFLO's) in an educational role

STRATEGIC OBJECTIVE



Youth in the South Coast will be involved in discussing and executing positive outcomes for coastal and marine planning and management issues.

ACTIONS	<p>A. Respect the level of awareness that youth have concerning the environment and continue to promote positive involvement of youth in resolution of coastal and marine planning and management issues (Cc/Cw, CALM, FWA, WRC, AgWA, SCMG, LG's, Community). ONGOING</p> <p>B. Involve youth in developing ideas for the promotion of youth optimism about the environment (Cc/Cw, AgWA, CALM, FWA, WRC, SCMG, LG's, Community). MEDIUM/ONGOING</p> <p>C. Develop an awareness raising campaign aimed at school children that focuses on positive outcomes associated with coastal and marine management (Cc/Cw, SCMG, LG's, FWA, CALM, WRC, Community). HIGH</p>
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7.10 EXPOSURE OF ABORIGINAL CULTURE ON THE COAST

KEY CONCERNS

- Aboriginal people are respectfully protective of their culture and may not want to share parts of it with the wider community.
- The general public know little about aboriginal culture in the South Coast.
- Limited local initiatives are underway to expose and utilise Aboriginal Culture.

EXISTING ACTIONS

- ✓ CALM employ Aboriginal education and liaison officers who develop and run courses to enhance understanding between cultures.

STRATEGIC OBJECTIVE



Aboriginal people are encouraged to share their culture with the wider community to promote greater understanding and acceptance of indigenous values.

ACTIONS	
	<p>A. Encourage aboriginal people to promote their cultural values and beliefs, where appropriate, to the wider community through interpretation, involvement and discussion (AAD, LG's, CALM, DoLA, WRC, GSDC, GEDC, NLC, GLC, SWCoE, SAC, AAC, EAC, BoIAC, ERTA, GSTA, SCMG, Community). HIGH/ONGOING</p> <p>B. Encourage aboriginal people to take a lead role in the promotion of their cultural values and beliefs to the wider community (AAD, NLC, GLC, SWCoE, LG's, CALM, DoLA, WRC, GSDC, GEDC, SAC, AAC, EAC, BoIAC, ERTA, GSTA, SCMG, Community). HIGH/ONGOING</p> <p>C. Celebrate aboriginal culture and beliefs in the south coast through the development of an annual 'festival' where individuals and groups can promote aboriginal people, programs, activities and products (AAD, SWCoE, NLC, GLC, SAC, AAC, EAC, BoIAC, GSDC, GEDC, LG's, SCMG, Community). HIGH/ONGOING</p> <p>D. Develop employment projects to improve signage and interpretive facilities which expose aboriginal connections to the coastal and marine environments (AAD, SWCoE, NLC, GLC, SAC, AAC, EAC, BoIAC, CALM, WRC, FWA, GSDC, GEDC, LG's, Community) MEDIUM</p> <p>E. Encourage commercial ventures, Local Governments and State Government departments to expose aboriginal culture in consultation with aboriginal people and in a culturally acceptable way (AAD, GLC, NLC, SAC, AAC, EAC, BoIAC, SWCoE, GSDC, GEDC, SCMG, Community). MEDIUM/ONGOING</p>



7.11 ABORIGINAL EMPLOYMENT ON THE COAST

KEY CONCERNS

- Aboriginal youth unemployment is significantly high in the south coast region. This issue is a whole of community concern but many people remain unaware of the difficulties facing aboriginal youth in the region.

EXISTING ACTIONS

- ✓ Great Southern Regional College offers training and employment courses for aboriginal people.
- ✓ Great Southern Development Commission is actively involved in promoting projects which provide employment opportunities for all aboriginal people.
- ✓ Southern Aboriginal Corporation, Albany Aboriginal Corporation and Bay of Isles Aboriginal Community provide training and employment opportunities and support for aboriginal people.

STRATEGIC OBJECTIVE



Aboriginal youth will be supported through the development of appropriate training which provides wide-ranging employment opportunities.

ACTIONS	
	<p>A. Encourage aboriginal youth involvement in the development of major projects, such as trail design development and guiding and other nature-based tourism opportunities which have long term benefits (SCMG, GSDC, GEDC, CALM, WRC, AgWA, LG's, NLC, GLC, SWCoE, EAC, BoIAC, SAC, AAC, SCMG, Community). HIGH</p> <p>B. Encourage Local Governments and other land management agencies to employ Aboriginal people as part of their workforce (CALM, AAD, GSDC, GEDC, SAC, AAC, EAC, BoIAC, SCMG). HIGH/ONGOING</p> <p>C. Continue to provide training opportunities to aboriginal youth through educational institutes, businesses, and employment agencies (AAD, SAC, AAC, EAC, BoIAC, GSDC, GEDC, CALM, Educational Institutes, Community). HIGH/ONGOING</p> <p>D. Develop opportunities for aboriginal youth to enter traineeships leading to employment with land management agencies (AAD, SAC, AAC, EAC, BoIAC, GSDC, GEDC, CALM, Educational Institutes, Community). HIGH/ONGOING</p> <p>E. Encourage aboriginal youth to take part or lead involvement in coastal management activities (AAD, SAC, AAC, EAC, BoIAC, GSDC, GEDC, CALM, Educational Institutes, Community). HIGH/ONGOING</p>



7.12 DECENTRALISATION OF EDUCATIONAL INSTITUTES

KEY CONCERNS

- Traditionally young people in the south coast have needed to move to the city to continue their education beyond secondary levels. This often places a financial burden on families and leads to a large number of young people leaving the region, which is an additional loss for families.

EXISTING ACTIONS

- ✓ Great Southern Regional College, Albany
- ✓ UWA Centre, Albany offers various university degrees
- ✓ Edith Cowan University has a presence in Albany.
- ✓ Esperance Community College
- ✓ The Esperance community are exploring the development of a marine institute to be established in Esperance.

STRATEGIC OBJECTIVE



All facets of tertiary education will be available to the South Coast community through the development of a suite of educational institutes which service the entire region.

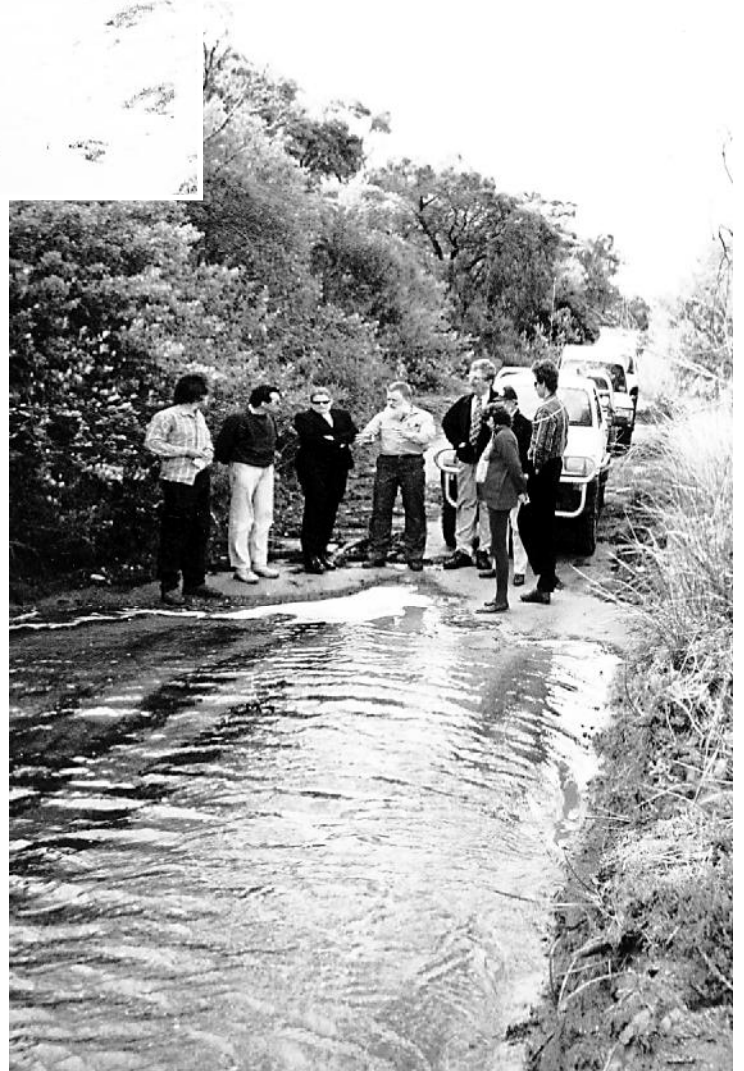
ACTIONS	<p>A. Encourage and develop the establishment of permanent tertiary courses at existing educational institutes in the region (Educational Institutes, SCMG, LG's, GSDC, GEDC, Community). HIGH</p> <p>B. Explore the development of university centres in all coastal towns to promote environmental and social studies into the natural features and values of the region (Educational Institutes, SCMG, GSDC, GEDC, LG's, Community). MEDIUM</p> <p>C. Encourage visitation of specialist tertiary educators to coastal towns to provide forums and stimulation to regional people (Educational Institutes, SCMG, FWA, WRC, AgWA, GSDC, GEDC, CALM, ERTA, GSTA, Cc/Cw, LG's, Community). HIGH/ONGOING</p>
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Teamwork and dedication by the community and CALM resulted in the building of a staircase down steep dunes at Cosy Corner (CoA).



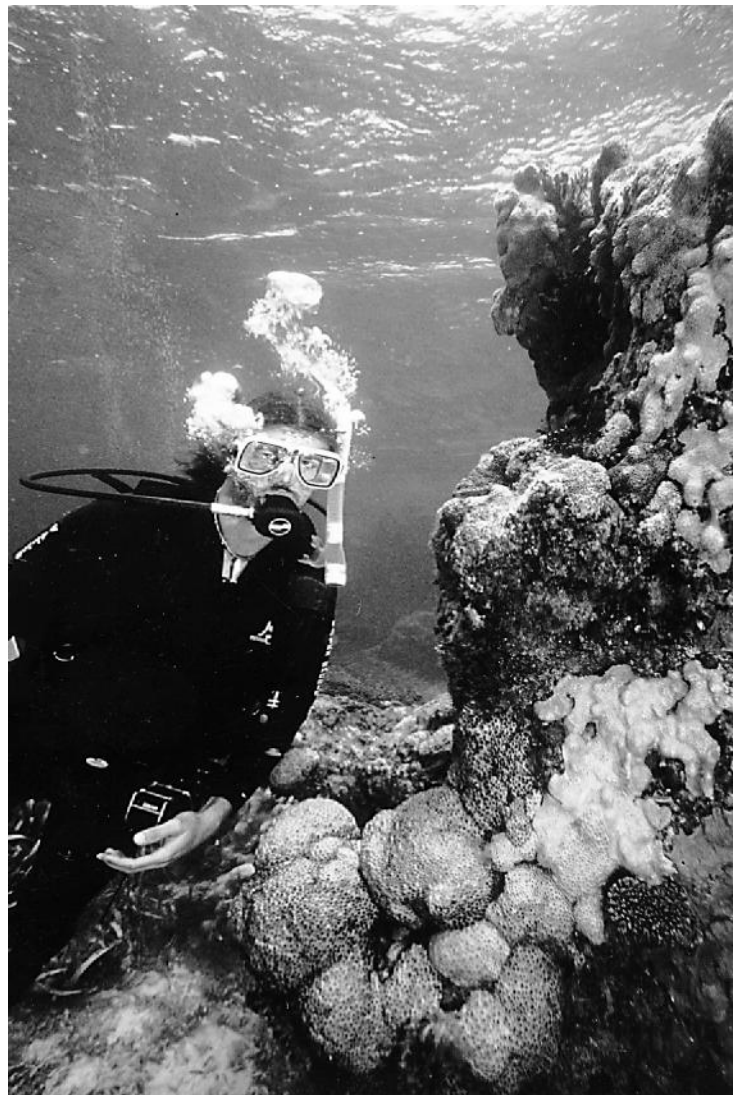
Community pride in their local beach is evident in banners made by the Wellstead community.
- Cape Riche - (CoA).



Getting all stakeholders together to talk about coastal issues is the first step in resolving them:
- Track to Doubtful Bay - (SoJ).



Children are more environmentally aware today and are keen to be involved in coastal & marine education programs. - Coastal Education Day, Middleton Beach - (CoA).



People are willing to volunteer their time to gather information about our coastal & marine environments.

8. COASTAL PLANNING, DEVELOPMENT & MANAGEMENT ISSUES

strategic objectives and actions



8.1 COASTAL MANAGEMENT PLANNING

KEY CONCERNS

- Coastal and marine planning and management in the South Coast could benefit from regional direction and guidance.
- Coastal management planning documents in the Region require review or preparation.
- Coastal management plans are not statutory and therefore are not always considered when planning decisions are made.
- Coastal planning recommendations are often not reflected in Town Planning Schemes.

EXISTING ACTIONS

- ✓ Development of **Southern Shores**.
- ✓ Coastal management plans are currently being reviewed by Shire of Esperance, Shire of Ravensthorpe, Shire of Jerramungup, City of Albany and Shire of Denmark.

STRATEGIC OBJECTIVE

- § **A clear, integrated planning framework directs sustainable use of the coast, with strong commitment to implementation and statutory links.**

ACTIONS	
	<p>A. Integrate actions of Southern Shores into coastal and marine planning documents where relevant (LG's, CALM, FWA, DoLA, MfP, WAPC). ONGOING.</p> <p>B. Continue to support the South Coast Management Group through nomination and support of Local and State Government and community delegates, inclusive of aboriginal people, who have an interest in promoting regional ideals and concepts contained in Southern Shores (LG's, CALM, WRC, FWA, AAD, GSDC, GEDC, SCRIPT, Community). ONGOING.</p> <p>C. Prioritise actions of Southern Shores through the development of an implementation plan (SCMG, LG's, CALM, WRC, FWA, DoLA, MfP, AgWA, GSDC, GEDC, SAC, AAC, BoIAC, ERTA, GSTA, SCRIPT, Cw/Cc, Industry and Commerce, Community). HIGH.</p> <p>D. Develop and accept a regional memorandum of understanding concerning the implementation of Southern Shores and support to South Coast Management Group (SCMG, LG's, State Agencies). HIGH.</p> <p>E. Audit and review Southern Shores with all relevant bodies on a bi-annual to 5 yearly basis. (SCMG) ONGOING.</p> <p>F. Shire of Dundas should undertake a coastal use assessment and prepare a coastal management plan if appropriate before the end of 2002 (SoDu, SCMG, Community). HIGH.</p> <p>G. City of Albany to prepare coastal management plans as outlined in City of Albany Coastal Strategy before 2005. (CoA, SCMG, Community). HIGH.</p> <p>H. Shire of Esperance, Ravensthorpe, and Denmark to complete updated coastal management plans before the end of 2002 (LG's, SCMG, Community). HIGH.</p> <p>I. Shire of Jerramungup to review coastal management plan before end of 2002 (SoJ, SCMG, Community). HIGH.</p> <p>J. Encourage management planning for Unallocated Crown Land (SCMG, LG's, DoLA, CALM, Community). HIGH.</p> <p>K. All local-scale coastal planning documents should be reviewed every 5-10 years (LG's, DoLA, SCMG, Community). ONGOING.</p> <p>L. CALM will undertake the development of the CALM managed Esperance Coastal Reserves and Albany Coastal Reserves Management Plans before 2005 (CALM, Community). HIGH.</p> <p>M. Development planning processes should reflect recommendations made in coastal management plans after endorsement by Council (LG's, WAPC, MfP, SCMG, Community). HIGH.</p> <p>N. Town Planning Schemes should recommend reference to Coastal Management Plans in regard to development proposals on the coast (LG's, WAPC, MfP, SCMG, Community). HIGH.</p>

	<p>O. Town Planning Schemes should recommend review and update of coastal management plans on a 5-10 year cycle (LG's, WAPC, MfP, SCMG, Community). HIGH.</p> <p>P. Involve coastal planning expertise when reviewing Town Planning Schemes for coastal towns (LG's, WAPC, MfP, SCMG). ONGOING.</p> <p>Q. Seek support from the Western Australian Planning Commission in developing statutory links between Town Planning Schemes and Coastal Management Plans (SCMG, LG's, WAPC, CZC, MfP). HIGH.</p> <p>R. Source funding to employ a 'Regional Project Development Officer' to coordinate and facilitate the ongoing implementation, monitoring and evaluation of Southern Shores (SCMG, LG's, CALM, WRC, FWA, GSDC, GEDC, Community). HIGH.</p> <p>S. Encourage and support staff training for coastal management planning, inclusive of site and recreational planning (LG's, SCMG, CALM, DoLA, Cw/Cc, Community). ONGOING.</p>
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8.2 ON-GROUND MANAGEMENT OF COASTAL LOCATIONS

KEY CONCERNS

- Approximately 60% of coastal locations, outside conservation estate, are in poor or less than good condition (SCMG, 2000a).
- Management infrastructure, such as fencing and signs, are generally in a poor state or absent (SCMG, 2000a).
- Local Governments are not guided in the design or specifications of management infrastructure on the coast resulting in ad hoc management approaches.
- Local government and DOLA have limited coastal/environment management expertise on staff inhibiting their ability to be proactive in the resolution of coastal management issues.
- Councillors and administration staff in Local Government and DOLA staff may be unaware of many problems with management on the coast because of limited expertise dedicated to this area resulting in inadequate budgetary allocations being made to resolve coastal management issues.

EXISTING ACTIONS

- ✓ All Shires, except Shire of Dundas, are currently updating or reviewing their coastal management plans.
- ✓ Coastcare community groups help focus attention on the resolution of coastal management issues.
- ✓ South Coast Management Group promote best practice coastal management to councils through nominated representatives.
- ✓ Regional Coastal Facilitator is available to provide advice and assistance to Local Government and community for resolution of coastal management issues.
- ✓ Coastwest/Coastcare Grant Scheme can provide funding for coastal management works.
- ✓ WRC/AWMA/WIMA Foreshore Management Plans.
- ✓ WIMA and Shire of Denmark and AWMA and City of Albany have 3 year implementation programs for coastal works based on Foreshore Management Plans. These are reviewed annually.

STRATEGIC OBJECTIVE

- 🦘 Coastal locations are managed to a high standard to increase their capability for sustainable use.



ACTIONS	
	<p>A. Recommendations in LG coastal management plans should be prioritised and allocated funds based on that prioritisation within an anticipated time frame (LG's, DoLA, SCMG). HIGH.</p> <p>B. A checklist/inventory of management infrastructure at all coastal locations should be developed and reviewed on a regular basis so that works staff are aware of maintenance and infrastructure needs (LG's, DoLA, SCMG, Community). ONGOING.</p> <p>C. Prepare coastal infrastructure maintenance plans annually to guide and prioritise implementation of infrastructure maintenance (LG's, DoLA, SCMG, Community). ONGOING.</p> <p>D. Councillors should be kept informed of the general condition and management level of coastal locations on an annual basis, through receipt of coastal infrastructure maintenance plans, so as to ensure necessary allocation of funds for management works (SCMG, LG's, DoLA). ONGOING.</p> <p>E. LG's and DoLA should actively pursue funding sources to help manage their coastal locations, especially in remote areas (LG's, DoLA, MfP, Cw/Cc). HIGH.</p> <p>F. Ocean Beach (SoDe), Middleton Beach (CoA), John Cove (SoJ), Hopetoun Foreshore (Town Beach) (SoR) and Esperance Foreshore (Town Beach) (SoE) should be recognised as significant local and regional coastal nodes and planned for to capitalise on recreational values and opportunities (LG's, Community). MEDIUM</p> <p>G. Undertake the development and implementation of landscape master plans which enhance the visual and recreational values of Ocean Beach (SoDe), Middleton Beach (CoA), John Cove (SoJ), Hopetoun Foreshore (SoR) and Esperance Foreshore (SoE) (LG's, EsPA, Community) HIGH</p> <p>H. LG's and DoLA should maximise outside funding and human resource opportunities through GreenCorp and Australian Trust for Conservation Volunteers (LG's, DoLA, Cw/Cc). ONGOING.</p> <p>I. A regional coastal management specification manual should be developed to assist coastal managers in determining design of infrastructure and materials needed, particularly fencing, car parking, pathways, bollards/barricades, signage, rubbish bins, shade structures, and beach access (SCMG, LG's, GSDC, WAMA, Community, CALM, DoLA, MfP, BolAC, Green Skills, Cw/Cc). HIGH.</p> <p>J. A regional coastal management specification manual should be developed to help increase the capacity of the community to become involved in on-ground coastal management works (SCMG, LG's, GSDC, WAMA, Community, CALM, DoLA, MfP, BolAC, Green Skills, Cw/Cc). HIGH.</p> <p>K. Encourage and support all staff and community representatives involved in coastal management to undertake appropriate training for coastal management, site planning and community relations (LG's, DoLA, CALM, WRC, FWA, MfP, GSDC, Community). ONGOING.</p> <p>L. Ensure coastal locations are managed according to site plans developed by professional coastal or landscape planners (LG's, SCMG, DoLA, Shire Rangers, Community). ONGOING.</p> <p>M. Encourage planning and management which is complementary to CALM management plan recommendations at coastal locations which are enclaved within CALM managed estate or are within the Fitzgerald Biosphere (CALM, LG's, SCMG, DoLA, SCMG, Community). MEDIUM/ONGOING</p> <p>N. Seek advice from CALM recreational planners concerning implementation of on-ground coastal management works wherever considered necessary or appropriate (LG's, DoLA, SCMG, Community). MEDIUM/ONGOING</p> <p>O. Undertake coastal user surveys to determine the level of use each location is supporting and seek to develop locations based on this information (LG's, DoLA, Community). HIGH/ONGOING.</p> <p>P. Encourage local communities to 'Adopt-a-beach' and support management activities they wish to undertake which are consistent with management plans (LG's, SCMG, DoLA, CALM, WRC, Cw/Cc, MfP, Shire Rangers). MEDIUM/ONGOING.</p>

8.3 ON-GROUND PLANNING AND MANAGEMENT OF UNALLOCATED CROWN LAND COASTAL RESERVES

KEY CONCERNS

- The majority of Unallocated Crown Land (UCL) on the coast is in a state of environmental decline due to unmanaged human impacts (SCMG, 2000a).
- The level of degradation and lack of management is not in keeping with DoLA's mission which is to administer and develop Crown Land for the benefit of the community, ensuring proper land stewardship, management and sustainable land use.
- Local Government may not be fully aware of liability issues associated with providing management presence on UCL.
- The days when UCL was invariably protected because of its isolation and the small numbers of people able to access it appears to be gone.
- Local Governments are often unwilling to take on comprehensive management responsibilities of UCL because they lack the resources to do so.

EXISTING ACTIONS

- ✓ DoLA will assess land management problems if made aware of them but have no direct on-ground support network for managing their reserves.
- ✓ DoLA and FESA have developed an MOU which facilitates FESA's involvement with fire management on UCL.
- ✓ FESA through bush fire services has a role to play in the management of UCL, specifically fire management including prevention and suppression.
- ✓ DoLA have suggested the formation of a Working Group consisting of all LG's and relevant State Government Departments to determine future management options for UCL.

STRATEGIC OBJECTIVE

- 📌 On-ground management of Unallocated Crown Land will be supported by good management planning and provision of adequate resources for maintenance and implementation.

ACTIONS	
	<p>A. Seek advice from Crown Law regarding liability issues associated with informal management of UCL by LG's (DoLA, WAMA, LG's, SCMG). HIGH.</p> <p>B. Undertake a land use audit of UCL in the South Coast and discuss vesting options with relevant land managers and community (DoLA, CALM, LG's, SCMG, DOME, Community). HIGH.</p> <p>C. Environmental management plans should be developed and implemented for all coastal UCL in the South Coast (DoLA, CALM, MfP, LG's, FESA, SCMG, Community). HIGH.</p> <p>D. Encourage community input into all management plans for UCL (DoLA, MfP, SCMG, LG's, Community). ONGOING.</p> <p>E. Encourage State Government to review budget allocations to ensure sufficient resources are available for implementation of management planning recommendations for all coastal UCL (DoLA, LG's, FESA, SCMG, Community). MEDIUM.</p> <p>F. Investigate the feasibility of leasing UCL to low-key nature based accommodation and tourism developers or alternative land managers such as Aboriginal groups as a means of preserving the environmental integrity of some reserves (DoLA, SCMG, WATC, GSTA, ERTA, GSDC, GEDC). MEDIUM.</p> <p>G. Advance recommendations of South Coast Regional Management Plan (CALM, 1991-2001) for inclusion of certain UCL to CALM managed estate (DoLA, CALM). HIGH.</p> <p>H. Encourage DoLA to provide free access to digital land tenure information, aerial photography and satellite imagery to Local Governments and community via the South Coast Regional Information Centre to facilitate involvement in the management of UCL (DoLA, SCRIC, SCMG, LG's, Community). HIGH/ONGOING</p>

8.4 ACCESS TO DIGITAL LAND TENURE INFORMATION AND COASTAL/MARINE SPECIFIC DIGITAL ORTHOPHOTOGRAPHY

KEY CONCERNS

- Land Managers have difficulty accessing up to date digital land tenure information because it is dynamic and costly.
- Information such as property ownership and vesting are vital in establishing networks of collaboration in coastal management, which becomes difficult without timely access to current details.
- Coastal land use audits are difficult to undertake because of the cost of digital data.
- The South Coast Regional Information Centre is constrained by government policy and financial resources in regard to providing digital land tenure information to the community.
- There is a lack of digital orthophotography along the South Coast specific to marine and terrestrial habitat identification, coastal management and temporal change monitoring.
- Monitoring and detection of environmental degradation at many locations on the South Coast is difficult due to the isolation and the limited resources of the Local Governments and some agencies managing coastal land.
- Coastal planners, marine scientists and management agencies previously have not accessed the State Land Information Capture Program (SLICP) process in a concerted way.

EXISTING ACTIONS

- ✓ South Coast Regional Information Centre is working toward a cooperative approach with Department of Land Administration and Local Government in obtaining up to date and reliable digital land tenure information.
- ✓ The Western Australian Land Information System's (WALIS) Marine Group proposes an extensive aerial photography capture program for 2001-2002, which will include the coastline from Walpole to Israelite Bay.

STRATEGIC OBJECTIVE

- 📌 **Current digital land tenure and coastal/marine orthophotography will support coastal and marine planning and management efforts in the Region.**

ACTIONS	<p>A. Encourage and support the development of an accessible and coordinated regional information centre to assist coastal and marine planning and management efforts (LG's, DoLA, SCRIPT, SCMG, AgWA, FWA, WRC, CALM, AAD, Community). ONGOING.</p> <p>B. Seek Commonwealth, State and/or Local Government funding support or cost exemption support to aid in the access to digital land tenure information (SCRIC, SCMG, SCRIPT, AgWA, WRC, CALM, DoLA, LG's, Community). HIGH.</p> <p>C. Undertake coastal land use audits in all Local Government areas and review vesting and purpose of all coastal land (DoLA, LG's, SCMG, Community). HIGH</p> <p>D. Share results of land use audit with relevant organisations (DoLA, LG's, SCRIC, SCMG, SCRIPT, AgWA, CALM, WRC, FWA, GSDC, Community). ONGOING.</p> <p>E. All State and Federal Government agencies with a presence in the South Coast, and all Local Governments and non-statutory planning bodies should provide letters of support for the WALIS Marine Group's capture program to be considered by the SLICP process (LG's, SCMG, SCRIPT, AgWA, CALM, MfP, WRC, SCRIC, Community). HIGH.</p> <p>F. Seek Commonwealth, State and/or Local Government funding or cost exemption support for the South Coast Regional Information Centre to act as a promotion and distribution node for digital orthophotography and any derived products (LG's, SCMG, SCRIPT, SCRIC, DoLA, Community). HIGH.</p>
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8.5 COASTAL DEVELOPMENT

KEY CONCERNS

- The coast is a preferred area for development because of its climate, enlarged recreational and commercial opportunities and transport links via the sea resulting in intensive use and modification of coastal environments.
- Town Planning Schemes do not directly discuss the issue of coastal development and therefore provide little guidance for decision makers when such issues are under discussion.
- DC6.1 Country coastal policy does not provide firm guidance in regard to refurbished development proposals on the coast resulting in each proposal being subject to local decisions and assessments which take time and resources.
- Non-coastal dependent development has been located on the coast, reducing opportunities that by their nature require coastal location.
- Some coastal development is located in high risk areas (areas susceptible to flooding, erosion, storm impacts etc).
- There is a danger of allowing tall or obtrusive buildings or structures to dominate foreshore areas to maximise views and accommodation options.
- Population growth in the South Coast is inevitable leading to a greater demand for coastal land and access to the coast.
- Coastal towns are often developed in a linear manner along the coast resulting in greater impacts on the coastal environment.
- In some areas pristine coastal land in close proximity to the sea is being used for urban expansion rather than land which is already degraded, such as unused farm land.
- The State Government does not have a policy which is recognised as cohesively guiding land-based marine aquaculture development.
- The development of the potentially lucrative nature-based tourism industry is dependent on considerate and sustainable use of the coast and the retention of its beauty and near pristine nature.

EXISTING ACTIONS

- ✓ DC 6.1 (Country Coastal Planning Policy) advises that linear expansion of coastal town sites should be avoided and suggests a setback distance for new coastal development.
- ✓ There is provision for Town Planning Schemes to include policy statements on coastal development issues, including the need for recognition of relevant coastal management plans.
- ✓ The WAPC is currently preparing a Statement of Coastal Planning Policy. This will supersede the Country Coastal Planning Policy (DC6.1).
- ✓ AWMA and WIMA provide formal input to coastal development in their areas and have policies relating to coastal development.
- ✓ FWA have a Regional Aquaculture Development Officer to assist applicants and community members with enquiries regarding land-based marine aquaculture.

STRATEGIC OBJECTIVE

- 🦞 The coastal environment will be developed responsibly and sensitively and in keeping with best practice coastal management principles and methods.



ACTIONS	<p>A. Ensure Town Planning Schemes incorporate discussion of issues relevant to coastal development such as building heights, land clearing, rehabilitation and setback distance which reduces the exposure of people and properties to the potential hazards associated with storm events and coastal recession. (LG's, WAPC, MfP, Community). HIGH.</p> <p>B. Identify development on the coast which is located in high risk areas and develop management protocols to deal with potential damage from natural or man-made impacts (LG's, MfP, WAPC, DoLA). LOW.</p> <p>C. Determine which developments need to be near the coast and encourage and support the relocation of non-coastal dependent development away from the coast (LG's, MfP, WAPC). LOW.</p> <p>D. Prohibit the development of visually prominent structures on the coast which may adversely impact the coastal viewsheds, or cast shadows over beach areas (LG's, MfP, WAPC, Community). ONGOING.</p> <p>E. New public structures on the coast will be designed and sited in an ecologically, culturally and aesthetically considerate manner (LG's, WAPC, MfP, DEP, SCMG, Community). ONGOING.</p> <p>F. Avoid linear expansion of town sites along the coast if appropriate land is available inland or higher density housing can be accommodated within town sites (LG's, WAPC, MfP, Community). MEDIUM.</p> <p>G. Encourage sub division or development of land already disturbed on the coast in preference to development of new undisturbed land (LG's, WAPC, MfP, Community). ONGOING.</p> <p>H. Work with Ministry for Planning and Western Australian Planning Commission to review State Coastal Planning Policy to ensure its relevance to the South Coast Region and the inclusion of guidelines for land-based marine aquaculture development (SCMG, LG's, Community). HIGH.</p> <p>I. Encourage community involvement in development of State Coastal Planning Policy (WAPC, MfP, SCMG, LG's, FWA, DoLA, DEP, CALM, GSDC, Community). HIGH.</p>
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Hindsight indicates that provision of an adequate setback at the time Esperance was established, may have avoided the need for shoreline revetment and costly beach renourishment.

8.6 COASTAL SETBACK


KEY CONCERNS

- Problems have arisen and continue to arise where infrastructure such as roads, buildings and pathways are threatened by natural, accelerated or exacerbated coastal processes.
- There is no firm guidance available to developers or decision makers regarding setback of infrastructure from the coast.
- It is generally recognised that global warming will exacerbate ice melt resulting in rise in sea level.
- Low lying coastal land will be the first land to be impacted by sea level rise no matter how minor.
- Consideration needs to be given to natural environmental values which may be affected by inundation at some time in the future.
- Development sometimes proceeds in estuarine areas which may be prone to inundation over varying time spans, resulting in necessary alterations being made to natural hydrological regimes through construction of revetments to protect infrastructure, artificial sand-bar openings and/or land reclamation.

EXISTING ACTIONS

- ✓ DC6.1 (Country Coastal Planning Policy) incorporates a suggested setback of 100m.
- ✓ WIMA/WRC provide guidance for setback along shores of Wilson Inlet.
- ✓ AWMA/WRC provide guidance for setback along shores of Albany Harbours.
- ✓ The WAPC is currently preparing a Statement of Planning Policy (State Coastal Planning Policy). This will supersede DC6.1 Country Coastal Planning Policy.

STRATEGIC OBJECTIVE

-  **New development on the coast will be separated from the established permanent vegetation line by a managed foreshore reserve to a width which allows:**
- natural coastal processes to occur;
 - for sea level rise and coastal recession;
 - for the movement of fauna and protection of stabilising vegetation;
 - for the maintenance of visual amenity, natural view sheds and natural contours; and
 - for recreational needs and opportunities.

ACTIONS	
	<p>A. Land directly abutting the sea will be kept as public estate and will not be alienated for private purposes (DoLA, LG's, WAPC, MfP, FWA, SCMG, Community). ONGOING.</p> <p>B. Work with Western Australian Planning Commission and Ministry for Planning to ensure discussion of coastal setback and its relevance to the South Coast Region in the development of the Statement of coastal planning policy (SCMG, LG's, Community). HIGH.</p> <p>C. Incorporate setback guidelines for new coastal development in future reviews of Town Planning Schemes (LG's, WAPC, SCMG, Community) HIGH</p> <p>D. Identify coastal shore types (eg sandy bays, rocky headlands) and the processes which affect them and discuss setback distance based upon shore type and natural fluctuations in width and height (MfP, LG's, SCMG, Educational Institutes, Community). MEDIUM.</p> <p>E. Seek up to date information regarding predicted sea-level rise and plan accordingly within expected time frames (WAPC, MfP, DEP, LG's, Community). ONGOING.</p> <p>F. Essential coastal and marine services, such as Surf Life Saving Clubs, will be considered on the merits of the design of development proposals and stability of the coastal location with preference being given to buildings of a transportable design (LG's, DoLA, WAPC, MfP, SCMG, Community). ONGOING.</p>

8.7 MAN-MODIFIED SHORELINES

KEY CONCERNS

- Man-modified shorelines can have a detrimental effect on the natural processes which occur in the sea-shore interface as well as create ongoing maintenance expense.
- Experience to date has shown it is difficult to design modified shorelines without side-effects or without incurring ongoing maintenance costs.
- Erosion of Esperance Bay, exacerbated by the construction of the Port of Esperance infrastructure, has resulted in the Esperance community bearing the cost of a large proportion of remediation works.
- Fishery Beach at Bremer Bay, once a well used family beach ideal for small children, no longer holds the same attraction since the construction of the Fishery Beach groyne and boat ramp.
- Construction of the Hopetoun Marina has resulted in erosion of the town beach to the west of town.
- Rock revetments which were considered necessary at Emu Point to protect infrastructure placed on and in close proximity to the delta area between Oyster Harbour and King George Sound have resulted in the scouring of beach sand away from the shore.
- Man-modified shorelines can detract from the aesthetic appeal of the coastal and marine environment.
- Some sectors of the south coast community do not believe that past community consultation has effectively taken into account local knowledge, feelings, concerns or needs.

EXISTING ACTIONS

- ✓ Coastal Engineering Guidelines (Institution of Engineers, 1998).
- ✓ Modified shoreline engineering structures are assessed by the Environmental Protection Authority.
- ✓ Esperance Port Authority has commissioned several studies which review shoreline movement and coastal processes in Esperance Bay in an effort to better understand the foreshore erosion problems.
- ✓ Esperance Port Authority have established the Port Development Consultative Committee which involves community members in discussion of port expansion activities.
- ✓ Some man-modified shorelines such as marinas and ports provide protection for the development of infrastructure which supports the communities use of the sea.

STRATEGIC OBJECTIVE

-  Extensive community consultation and reference to best practice coastal management and coastal engineering practices will occur before a shoreline is modified.

ACTIONS	<p>A. Pursue a philosophy of designing with coastal processes, not against them (WAPC, MfP, DEP, DoT, DoLA, LG's, SCMG, Community). ONGOING.</p> <p>B. Discuss the option of planned strategic retreat when infrastructure is threatened by shoreline recession and when remediation costs are significantly greater over the long term than acquisition of property under threat (LG's, Community). ONGOING</p> <p>C. Encourage early, integrated and cohesive discussion between State Government, Local Government and community to address concerns associated with proposed modification of shorelines prior to modifications occurring (DoT, MFP, DEP, ESPA, APA, SCMG, Community). HIGH.</p> <p>D. Encourage formal environmental impact assessment of proposed man-modified shorelines and include modelling of likely impacts, both for the short (0-100 years) and long-term (>100 years) (LG's, SCMG, Community, EPA, DEP, WAPC, MfP, DoT, WRC, Community). HIGH.</p> <p>E. Encourage assessment of the visual impacts of proposed man-modified shorelines (LG's, SCMG, WAPC, MfP, DoT, EPA, DEP, Community). ONGOING.</p> <p>F. Encourage the use of native coastal species when landscaping near man-modified shorelines or when rehabilitating areas affected by man-modified shorelines (LG's, SCMG, WAPC, MfP, DoT, EsPA, APA, Community). ONGOING.</p>
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8.8 SHORELINE MOVEMENT

KEY CONCERNS

- Sandy coastlines are dynamic natural systems which change in shape and height over varying periods of time.
- Shoreline movements can be exacerbated by man-made interruptions to natural processes
- At present little information is available on shoreline movement in the south coast.
- It's important for the future of sustainable coastal planning and management that shoreline movement information becomes available.

EXISTING ACTIONS

✓ No existing actions.

STRATEGIC OBJECTIVE

- 🦘 Shoreline movement data will be interpreted from aerial orthophotography at appropriate intervals into the future to improve the knowledge of regional shoreline movement and provide information for land-use decision making.

ACTIONS	
	<p>A. Support the WALIS Marine Group's proposal for aerial photography capture in the South Coast (LG's, SCMG, SCRIPT, AgWA, CALM, MfP, WRC, SCRIC, Community). HIGH.</p> <p>B. Seek funding to undertake analysis of shoreline movement of sandy shores in the South Coast Region, at appropriate intervals, and after all major storm events (SCMG, SCRIC, LG's, DoLA, DoT, WRC, MfP, Educational Institutes, Community). ONGOING.</p> <p>C. Designate a custodian in the South Coast Region for digitised aerial orthophotography and shoreline movement analysis and interpretation (LG's, DoLA, DoT, CALM, WRC, MfP, SCMG, Community). MEDIUM.</p> <p>D. Ensure all future coastal development, refurbishment, planning and management of sandy shores considers shoreline movement and makes allowance for degree of movement (LG's, WAPC, MfP, WRC, DoT, Community). ONGOING.</p> <p>E. Encourage and support research into oceanographic and near shore hydrodynamic processes in the South Coast Region (SCMG, LG's, WAPC, MfP, GSDC, Educational Institutes, Community). LOW.</p> <p>F. Where photographic information is not available to determine past shoreline movement, information should be sought, in the near future, from older members of coastal communities who can contribute oral history on this subject (LG's, MfP, DoT, Community). MEDIUM.</p>



8.9 CATCHMENT MANAGEMENT PLANNING

KEY CONCERNS

- Catchment management and coastal and marine management are not fully integrated or linked in the minds of most people at present.
- Catchment land practices ultimately impact on the coast and seas.
- The community is generally unaware that rising salinity levels and increased run-off from cleared agricultural land may eventually affect coastal ecosystems and fresh groundwater supplies at the coast.

EXISTING ACTIONS

- ✓The Salinity Strategy (Government of Western Australia)
- ✓Kent/Denmark Recovery Catchments – Implementation Support (WRC)
- ✓Kent/Denmark Recovery Catchments – sub-catchment planning (WRC)
- ✓Private land owners undertake planting of trees to assist in the amelioration of salt affected land.
- ✓Development of **Southern Shores**
- ✓AWMA and WIMA deal both with catchment and coastal issues.
- ✓The pending Southern Prospects Strategy (2001 version) is working towards the integration of resource management
- ✓SCRIPT and SCMG meetings offer a forum for resource managers to share information concerning their activities and their relationship to each other
- ✓Water and Rivers Commission have a waterway to sea approach to their management activities
- ✓Albany Catchment Foreshore Rehabilitation Project (WRC)
- ✓Implementation of foreshore plans for Albany Harbours Project (WRC)
- ✓Wilson Inlet Catchment Support and Rehabilitation Project (WRC)
- ✓Implementation of foreshore plan for Wilson Inlet (WRC)
- ✓Lake Powell and Torbay Inlet Catchment Support Project (WRC)
- ✓Focus and Rapid Catchment Appraisal Process (AgWA)
- ✓Implementation of foreshore plan for Wilson Inlet (Shire of Denmark)

STRATEGIC OBJECTIVE



A whole of ecosystem approach to planning and management of land and water resources is encouraged.

ACTIONS	
	A. Support the development of strong links between the South Coast Regional Initiative Planning Team and South Coast Management Group (SCMG, SCRIPT, AgWA, CALM, WRC, FWA, LG's, GSDC, Community). ONGOING.
	B. Identify and discuss catchment issues which currently have or may have the potential to impact on the coastal and marine environment over the short and long term (SCMG, SCRIPT, AgWA, WRC, CALM, FWA, DEP, LG's, Community). ONGOING.
	C. Address relevant catchment issues in all coastal and marine planning and management documents in consultation with catchment managers (LG's, SCMG, CALM, WRC, FWA, AgWA, Community). HIGH.
	D. Address relevant coastal and marine issues in all catchment planning and management documents in consultation with coastal managers (AgWA, WRC, CALM, FWA, SDMG, LG's, Community). HIGH.
	E. Investigate the existing and potential impacts of rising salinity levels and increased water flow on coastal ecosystems and water supplies (AgWa, WRC, WC, FWA, CALM, GSDC, LG's). MEDIUM.
	F. Continue to raise coastal community awareness about rising salinity levels and increased water flow (AgWA, WRC, WC, LG's, CALM, SCMG). ONGOING.
	G. Investigate the potential use of salt tolerant coastal species in the rehabilitation of agricultural lands affected by secondary salinity (AgWA, WRC, CSIRO, DEP, GSDC, Educational Institutes, Community). LOW.
	H. Set management objectives for coastal and marine ecosystems which will influence catchment management responses (DEP, WRC, CALM, AgWA, FWA, SCMG, LG's, Community). HIGH.
	I. Recommend any necessary modifications to management practices in light of research findings (AgWA, WRC, FWA, LG's, CALM, GSDC, SCMG, Community). ONGOING.

8.10 PRESERVATION OF ABORIGINAL AND EUROPEAN HERITAGE

KEY CONCERNS

- People in the South Coast are still in the process of developing a distinct identity and culture. Therefore significant heritage sites are important locations which should be preserved and studied to allow a better understanding of past and current identity and culture.
- The integration of Aboriginal and European culture and lifestyle hasn't always been an easy path but with appropriate recognition of the wealth that each culture has contributed to the South Coast integration can only progress.

EXISTING ACTIONS

- ✓ Identification of approximately 1700 significant aboriginal sites in the South Coast.
- ✓ Municipal heritage inventories list and classify features and buildings of significance to the culture of people of European descent.
- ✓ State and local agencies work with aboriginal communities to identify and protect heritage sites from development and other impacts.

STRATEGIC OBJECTIVE

- 🦘 Aboriginal and European heritage in the South Coast will be respected through the preservation and protection of significant sites and features important to each culture.

ACTIONS	<p>A. Recognise Aboriginal and European heritage sites as important in all management and planning documents (AAD, LG's, CALM, WRC, DoLA, NLC, GLC, SCMG, Community). ONGOING</p> <p>B. Support the transfer of unclassified heritage information to digital mapping and make available to all land managers where appropriate (AAD, NLC, GLC, SCRIC, LG's, CALM, WRC, DoLA, SCMG, Community). HIGH/ONGOING</p> <p>C. Preserve (where possible), protect and promote (where appropriate), historical and cultural sites located on the coast and in the sea (AAD, NLC, GLC, LG's, CALM, WRC, DoLA, FWA, Museums, SCMG, Community). HIGH/ONGOING</p> <p>D. Support the collation of aboriginal coastal stories and extend to the community in interpretive material where appropriate (AAD, NLC, GLC, LG's, CALM, WRC, DoLA, FWA, Museums, Educational Institutes, SCMG, Community). MEDIUM</p>
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View from the Lighthouse keeper's house.
- Breaksea Island Nature Reserve -

8.11 NATIVE TITLE

KEY CONCERNS

- Native Title may be perceived as a constraint to land use and planning.
- The process of determining Native Title claims is often lengthy and not well understood by the general public.
- The involvement of Aboriginal people in the management of the coast and seas need not be delayed or influenced by determination proceedings for native title.

EXISTING ACTIONS

- ✓ Native Title Tribunal and Federal Court assesses claims on a case by case basis
- ✓ Native Title claims exist over the entire South Coast area and the adjacent seas
- ✓ Land Councils assist claimants in preparing their cases for determination of native title and therefore, facilitate the process of claim assessments.
- ✓ There is increasing emphasis on development of Indigenous Land Use agreements (ILU's), in preference for Native Title procedures.
- ✓ The newly elected Government has announced initiatives to encourage consent determination of native title where possible.
- ✓ Working with Native Title (Western Australian Municipal Association, 1997).

STRATEGIC OBJECTIVE

- § Native Title is an opportunity for aboriginal people to lead involvement or become involved in management of the land and sea.

ACTIONS	<p>A. Encourage and support the resolution of native title claims (AAD, NLC, GLC, LG's, DoLA, CALM, FWA, DoT, SCMG, Community). ONGOING</p> <p>B. Respect historical and cultural claims of aboriginal peoples as determined through the Native Title Tribunal and Federal Court (Community). ONGOING</p> <p>C. Consult Native Title claimants as early as possible to discuss development issues which may affect claimed areas (AAD, NLC, GLC, Land Councils, DoLA, LG's, CALM, WRC, FWA, DEP, DoT, SCMG, Community). HIGH/ONGOING</p> <p>D. Land management agencies should be encouraged to develop Indigenous Land Use agreement with native title claimants where appropriate (AAD, NLC, GLC, CALM, DoLA, LG's, Community). ONGOING</p>
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8.12 SQUATTER DWELLINGS

KEY CONCERNS

- Most squatter dwellings do not comply with statutory building or health regulations.
- Some squatter dwelling 'owners' have introduced exotic plants and often dump rubbish in remote and pristine areas.
- DoLA do not actively pursue the demolition and removal of squatter dwellings from UCL in the South Coast.
- Local Government do not have the resources available to pursue demolition and removal of squatter dwellings from Unallocated Crown Land.
- It is not clear, in many locations along the coast, which fishing shacks are legal leaseholds and which are squatter dwellings.
- Significant costs are associated with the removal of squatter dwellings from UCL and LG Reserves.

EXISTING ACTIONS

- ✓ State Squatter Policy (1989) prohibits the establishment of new squatter dwellings and sets out a time frame and process for the removal of squatter dwellings throughout Western Australia.
- ✓ Local Government can apply for an interim vesting order for Unallocated Crown Land reserves if they wish to pursue the removal of squatter dwellings located on UCL within their shire/city boundary.
- ✓ Squatters can be removed from vested and interim vested land under the Local Government (Miscellaneous Provisions) Act 1960.
- ✓ Draft Esperance Coastal Management Plan (Field, 2001) recommends the removal of squatter dwellings from Israelite Bay.
- ✓ Draft Ravensthorpe Coastal Management Plan (Field, 2001a) recommends the removal of squatters, particularly people who appear to be taking up permanent residence in modern caravans on coastal reserves vested to the Shire.

STRATEGIC OBJECTIVE

- § Squatter dwellings on the South Coast will be removed and the coastal environment restored to its natural condition or managed to discourage squatter presence.

ACTIONS	<p>A. Department of Land Administration and Local Governments should discuss and clarify their roles and responsibilities in regard to the removal of squatter dwellings from Unallocated Crown Land in the South Coast (DoLA, CoA, SoJ, SoR, SoE, SoDu). HIGH.</p> <p>B. Implement State Squatter Policy in all Local Government areas within a regionally agreed time frame if deemed necessary (DoLA, LG's). MEDIUM.</p> <p>C. Develop inventories of the location of squatter dwellings, their condition and possible 'owners' (DoLA, LG's, Community). HIGH.</p> <p>D. Provide adequate resources for the systematic removal of squatter dwellings and the rehabilitation of sites on both Unallocated Crown Land and LG Reserves (DoLA, LG's). HIGH.</p> <p>E. Manage coastal reserves to discourage squatter presence (LG's, DoLA, Community). ONGOING</p>
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8.13 COMMERCIAL FISHING LEASES

KEY CONCERNS

- It is not clear in many locations along the coast which fishing shacks are legal leaseholds and which are squatters.
- Conditions outlined on most leases do not state to what level a site should be rehabilitated when leases are no longer required.
- Problems may occur for land managers if fishers were unable to afford the demolition of buildings or professional advice about rehabilitation when leases are no longer required.
- Exotic plant species are often introduced to remote fishing leases resulting in establishment and spread of weed species in otherwise pristine areas (e.g. Buffalo Grass at Cheyne Beach and Cotyledon orbiculare at Trigelow Beach).
- Fishing leases are often located close to the shore without thought of adequate setback to protect the foredune vegetation buffer or to provide good public access.
- Fishing shacks and associated gear can have a high, negative visual impact.

EXISTING ACTIONS

- ✓ Draft Esperance Coastal Management Plan recommends that a fishing leasehold at Nares Beach be cancelled because it is no longer used.

STRATEGIC OBJECTIVE

- 🦞 Commercial fishing lease agreements will be reviewed to ensure the coastal environment is adequately protected.

ACTIONS	<p>A. Develop an inventory of commercial fishing leases in the South Coast Region for public information (LG's, DoLA, SCMG, FWA). HIGH.</p> <p>B. Negotiate lease agreements with licensed commercial fishers for shacks or sheds which are illegally located but are known to support fishing effort in adjacent waters if and where appropriate (LG's, DoLA, FWA). HIGH.</p> <p>C. Undertake a study to determine the terrestrial environmental impacts associated with commercial fishing leases along the coast and review environmental conditions in existing commercial fishing leases at the time of their renewal based on this study (LG's, DoLA, SCMG, FWA). HIGH.</p> <p>D. Consider appropriate setback distance from the foredune and provision of public access in considering applications for commercial fishing leases (LG's, DoLA, FWA, SCMG, Community). ONGOING.</p> <p>E. Prepare and distribute informative and educational material regarding identified environmental impacts to all leaseholders (DoLA, LG's, SCMG, FWA). MEDIUM.</p>
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Lighthouse keeper's houses on islands are important heritage sites.
- Breaksea Island Nature Reserve, King George Sound -



Alteration of the nearshore dunes can result in the creation of open recreational space on protected shores - Emu Point - (CoA).



The Esperance Foreshore has long been an important recreational focal point for the local community. However, modification of the natural coastal processes has caused some problems which are being dealt with by the Shire of Esperance, Esperance Port Authority and Department of Transport.



Dune vegetation has the ability to restabilise eroded shorelines because of its extensive root system.

9. TERRESTRIAL CONSERVATION MANAGEMENT ISSUES

strategic objectives and actions



9.1 MAINTENANCE OF ECOSYSTEM HEALTH

KEY CONCERNS

- At present the majority of the population in the south coast are unaware of their dependence on ecosystem health: the balancing of environmental, economic and social issues and needs.

EXISTING ACTIONS

- ✓ Water and Rivers Commission hosted a seminar on Ecosystem Health in September 2000
- ✓ BushCare promotes ecosystem health concept through documents and advice.

STRATEGIC OBJECTIVE



Ecosystem health will be recognised as essential to the sustainable management of the coast and seas.

ACTIONS	<p>A. Ensure economic development of the coast and seas is balanced with the environmental and social values held by local and regional communities (LG's, MfP, WAPC, DEP, DoLA, CALM, WRC, FWA, GSDC, GEDC, WATC, ERTA, GSTA, SCMG, Community). HIGH/ONGOING</p> <p>B. Encourage the incorporation of the philosophy of ecosystem health into planning and management activities on the coast (LG's, CALM, DoLA, WRC, FWA, AgWA, SCMG, Community). ONGOING</p>
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9.2 BIOLOGICAL AND GEOLOGICAL DIVERSITY

KEY CONCERNS

- Our knowledge of the biological and geological diversity of the coastal areas of the South Coast Region needs to continue to grow, inside and outside of conservation estate.
- Thirty-six animal species, known to occur in the South Coast, are listed as threatened. This represents over 75% of the South Coast's threatened fauna species and highlights the fact that the coast is very important for threatened fauna species management.
- At the national level, present and future threats to biological diversity and endangered species are considered to be: low numbers, fragmentation, road works, weed competition, feral competition, grazing, agriculture, industrial and urban development, fire frequency, collecting, mining, and forestry (Leigh & Briggs, 1992; Richardson et al, 1996). Introduced disease and rising salinity levels are also highly threatening.
- The most serious threats to biological diversity in the South Coast are dieback, feral animals, low numbers of individuals in populations of some species, fragmentation of habitat. Other threats include clearing for developments, weed competition, fire frequency and mining (J Watson, pers comm).
- Biodiversity values protected in conservation estate are frequently threatened by 'outside' influences from unmanaged land abutting or contiguous with National Parks and Nature Reserves.
- There is no State legislation for the integrated conservation and management of important geological features, with features outside conservation estate possibly being threatened by development of land and resources.
- Local extinctions of plants and animals may cause a decrease in the robustness of populations.
- Dieback is becoming an increasingly widespread plant pathogen in the south coast, particularly in wetter parts of the region (western portion) and has the potential to cause the loss of a considerable number of plant species – particularly of the families Proteaceae and Epacridaceae.
- Dieback is difficult to contain as it is easily transported by vehicles, foot traffic, animal movement and surface and groundwater flow.
- Land managed by LG's and DoLA is particularly susceptible to the spread of dieback because of a lack of consideration or implementation of environmental management plans in many areas.

EXISTING ACTIONS

- ✓ Wildlife Conservation Act (1950) provides for the protection of all native flora and fauna.
- ✓ CALM, WRC and FWA provide assistance to LG's and DoLA when they consider conservation issues on Crown Lands.
- ✓ Land for Wildlife encourages the protection of biodiversity values on private lands.
- ✓ National Heritage Trust and CALM have perpetual covenanting schemes to promote the protection of biodiversity values on private land.
- ✓ AgWA has a '30 year' covenanting scheme to protect natural vegetation on private farm land.
- ✓ City of Albany Greenways Plan (in prep).
- ✓ Shire of Denmark Greening Plan (in prep).
- ✓ The National Strategy for the Conservation of Australia's Biological Diversity (Commonwealth of Australia, 1996).
- ✓ Terrestrial fauna of the South Coast – a review (Gilfillan, 2000)
- ✓ Vegetation and Flora of the South Coast – a review (Craig, 2000)
- ✓ Geology, Landforms and Mineral Extraction in the South Coast – a review (Green & Wetherley, 2000).
- ✓ CALM management plans deal with dieback spread.
- ✓ CALM provide advice on dieback management to all land managers.
- ✓ Boot cleaning stations are situated on many CALM controlled walk paths.
- ✓ City of Albany have boot cleaning stations on some of their nature trails.
- ✓ Many flora and fauna surveys have been carried out as part of CALM research and monitoring programs.
- ✓ Dieback Working Group has developed 'Local Government Guidelines' for management of dieback on LG reserves.
- ✓ CALM's Western Shield program controls foxes on many NP's and NR's and some Unallocated Crown Land.
- ✓ Community driven 'GondwanaLink' project seeks funding to purchase extensive areas of private land to create a major corridor network which will enhance biodiversity values in sometimes previously degraded areas.
- ✓ The South Coast is well known for its plant diversity and the presence of threatened flora.
- ✓ CALM manages a network of reserves which protect biological diversity.
- ✓ CALM manages over 2.4 million hectares of National Parks and Nature Reserve, which form a system of protected areas for the conservation of flora and fauna. Many of these reserves are coastal.
- ✓ CALM protects some critically endangered flora populations by spraying with phosphite.
- ✓ CALM is implementing recovery plans for Noisy Scrub-bird, Gilbert's Potoroo, Ground Parrot, Bristlebird, Chuditch, Dibbler and Threatened Flora of the Albany District.

STRATEGIC OBJECTIVE

A comprehensive understanding of biodiversity and geodiversity will guide conservation and protection of flora, fauna and geological features in the South Coast.



ACTIONS	<p>A. Ensure the system of protected areas is adequate and representative and is maintained to retain and restore the diversity, health and productivity of coastal ecosystems (CALM, LG's, DoLA, Community). HIGH.</p> <p>B. Continue to undertake and support the study of ecological relationships of flora and fauna throughout the Region (CALM, WRC, AgWA, GSDC, Educational Institutes, Community). ONGOING.</p> <p>C. Support CALM's management of threatened species (LG's, WRC, AgWA, Community). ONGOING.</p> <p>D. Encourage community participation in flora and fauna surveying of the South Coast (CALM, WRC, DoLA, GSDC, LG's, Cc/Cw, Bc, LfW). ONGOING.</p> <p>E. Support the documentation of the regional distribution of poorly known taxa (e.g. invertebrates, bats and fungi) and focus ecological studies on plant and animal communities to increase our understanding of community function, with the aim of maintaining functional biodiversity (CALM, WRC, GSDC, Educational Institutes, Community). ONGOING.</p> <p>F. Continue to increase the community's awareness of threats to wildlife and species most at risk with emphasis placed on educating school children (CALM, LfW, Bc, Cc/Cw). ONGOING.</p> <p>G. Develop a regional scale vegetation management strategy for the South Coast inclusive of islands, coastal dunes, coastal hinterland, conservation estate and private landholdings (SCRIPT, SCMG, CALM, WRC, DEP, AgWA, DoLA, LG's, Community). MEDIUM.</p> <p>H. Greening Plans should be developed by all Local Governments (LG's, DoLA, Community). MEDIUM.</p> <p>I. Ensure human activities occurring in close proximity to protected areas are compatible with management objectives outlined in planning and management documents (LG's, CALM, DoLA, MfP, DEP, SCMG, Community). ONGOING.</p> <p>J. Organise a scientific forum which can help identify and prioritise current research needs in the South Coast Region (CALM, FWA, AgWA, LG's, GSDC, Educational Institutes, SCMG, Community). MEDIUM.</p> <p>K. Encourage and support research which assists in providing better understanding for the sustainable management of biodiversity and the current and potential impacts associated with human activities and natural processes (CALM, WRC, FWA, AgWA, DEP, GSDC, LG's, DoLA, Educational Institutes, Community). ONGOING.</p> <p>L. Identify important geological features in the coastal area, including islands, reefs, cliffs, headlands, hills and mountains (CALM, DoME, Educational Institutes, Community). MEDIUM.</p> <p>M. Review policies and Acts which have relevance to the recognition and protection of geological features (CALM, WAPC, DoME, DRD, LG's). MEDIUM.</p> <p>N. Determine extent of dieback presence in coastal reserves, particularly in areas traversed by vehicles and foot traffic (LG's, DoLA, CALM). MEDIUM.</p> <p>O. Dieback management should be discussed in all coastal management plans and Greening plans (LG's, DoLA, CALM, SCMG, Community). ONGOING.</p> <p>P. Dieback management methods will be developed and implemented for all coastal land (LG's, DoLA, CALM). MEDIUM.</p> <p>Q. Encourage and support land managers to undertake Dieback management training (LG's, DoLA, Community). ONGOING.</p> <p>R. LG's and DoLA should liaise with CALM about dieback management if infected land is abutting or contiguous with conservation estate (LG's, DoLA, CALM). ONGOING.</p> <p>S. Recommend any necessary modifications to management practices in light of research findings (CALM, DoLA, LG's, WRC, AgWA, SCMG, Community). ONGOING.</p>
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9.3 COASTAL CORRIDOR PROTECTION/VEGETATION MANAGEMENT

KEY CONCERNS

- The coastal vegetation corridor (macro-corridor) has weaknesses such as the thinning of corridor width caused by land clearing close to the edge of some estuaries and mobile sand dunes, as well as some breakages e.g. near the City of Albany.
- At present there is no regionally strategic direction to guide vegetation management of the coastal corridor or other significant macro-corridors and remnant vegetation in the south coast. This may lead to continued loss of small and large areas of significant vegetation important for the maintenance of biodiversity values in the region.
- The almost unbroken coastal corridor of uncleared vegetation from Walpole east across the region to the South Australian border is a vital part of the South Coast Region Macro-corridor network and links the region from west to east.

EXISTING ACTIONS

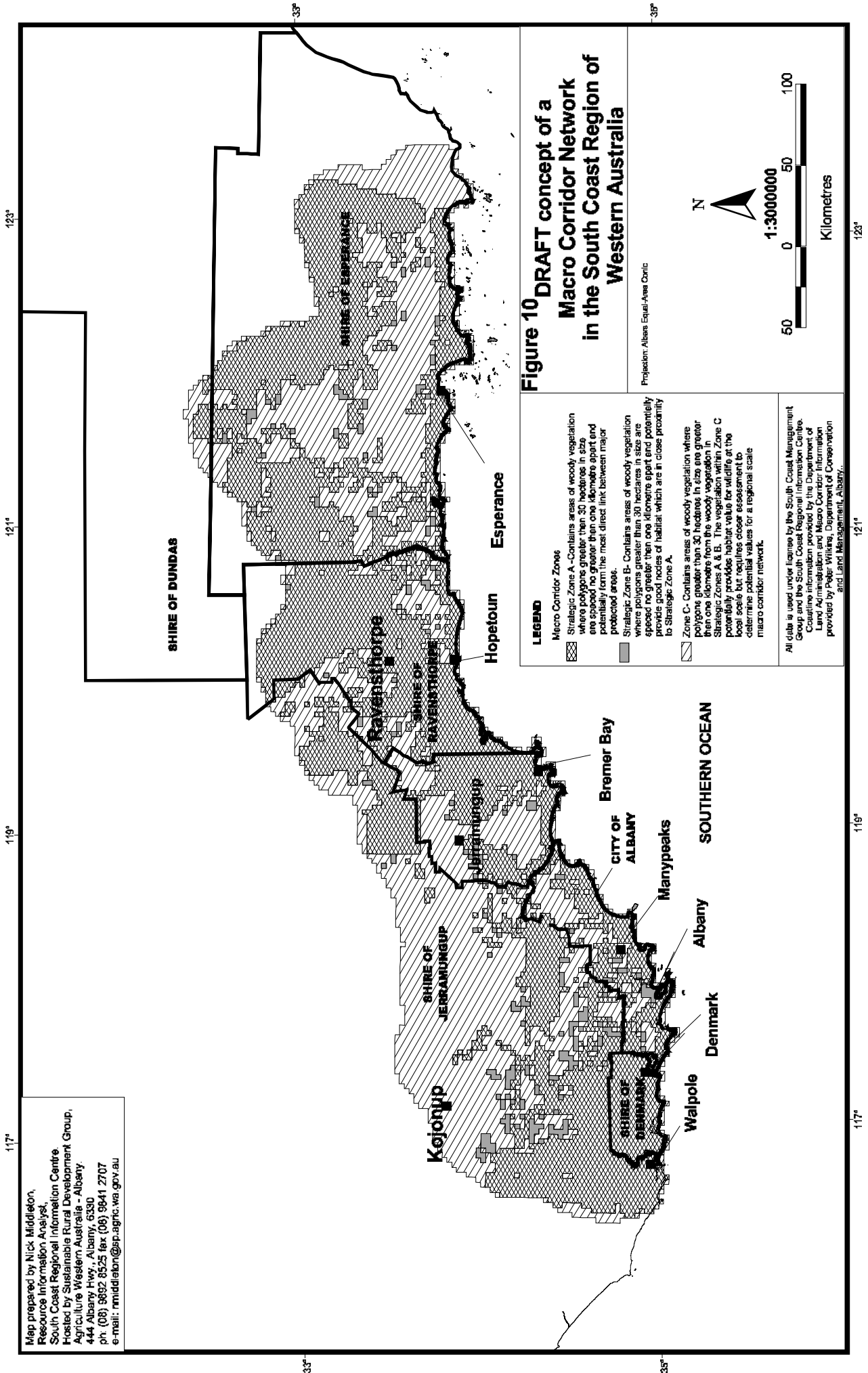
- ✓ Macro-corridor Project initiated by CALM and supported by the National Heritage Trust.
- ✓ City of Albany Greenways Plan (in prep)
- ✓ Shire of Denmark Greening Plan (in prep)
- ✓ SCRIPT has initiated discussion into the development of a Regional Vegetation Management Strategy.
- ✓ Intent to clear >1 hectare is referred to Commissioner for Soil Conservation, Agriculture WA.
- ✓ WIMA and AWMA provide advice on clearing in relevant catchments.
- ✓ Coastal reserves, managed by CALM, constitute approximately 70% of the coast within the Southern Shores study area ensuring a large proportion of the coastal corridor is protected.

STRATEGIC OBJECTIVE



The coastal vegetation corridor will be retained and strengthened and vegetation will be managed to strategically protect important links in the landscape.

ACTIONS	
	A. Support the implementation of the Macro-corridor project findings (CALM, WRC, AgWA, DEP, MfP, WAPC, DoME, LG's, SCMG, Community). ONGOING.
	B. Maintenance of the coastal corridor is to be considered in all Greening Plans developed by Local Governments (LG's). MEDIUM.
	C. Develop a strategy to provide guidance in the management, prioritisation, implementation and protection of vegetation corridors throughout the South Coast landscape, recognising that coastal reserves provide the strongest east-west link in the landscape at present (SCRIPT, SCMG, CALM, AgWA, DEP, WRC, LG's, Community). HIGH.
	D. Land clearing applications in close proximity to weaknesses or breakages in the corridor should be assessed on a case by case basis with the view of protecting the corridor as best as possible (DEP, AgWA, CALM, WRC, MfP, LG's, SCMG, Community). HIGH.
	E. Seek to provide the community and land managers with resources to implement the macro-corridor project findings and recommendations (Cwlth, CALM, DEP, DoLA, AgWA, WRC, MfP, LG's, SCRIPT, SCMG, Community). ONGOING.
	F. Promote the concept of macro-corridor protection throughout the Region (CALM, DEP, DoLA, AgWA, WRC, MfP, LG's, SCMG, SCRIPT, Community). HIGH/ONGOING.
	G. Ensure all vegetation and floral communities, genetic resources of flora and fauna at genotypic, population and species levels are adequately represented in conservation reserves in the South Coast, aiming for at least 20% for each vegetation system (CALM, DoLA, LG's, Community). MEDIUM/ONGOING.
	H. Ensure threatened vegetation and floral communities are identified and protected throughout the coastal and regional landscape (CALM, LG's, DoLA, Community). HIGH/ONGOING.
	I. Develop a comprehensive, integrated database on the natural vegetation and floristics (both spatial and aspatial formats) of the Region (CALM, SCRIC, AgWA, DEP, WRC, Educational Institutes, Community). MEDIUM.
	J. Investigate the implications of climate change on the vegetation of the coastal and regional landscape (CALM, AgWA, CSIRO, DEP, GSDC, Educational Institutes, Community). LOW.
	K. Recommend any necessary modifications to management practices in light of research findings (CALM, AgWA, DoLA, LG's, GSDC, SCMG, Community). ONGOING.



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9.4 WEED MANAGEMENT

KEY CONCERNS

- Weed species which are beginning to proliferate along the south coast are those which are highly opportunistic in local conditions, or which are extremely difficult to control e.g. Bridal Creeper, Arum Lily, Box Thorn, Victorian Tea Tree, Pyp Grass and Cotyledon orbiculare.
- *Watsonia* spp. and *Psoralea pinnata* (Taylorina) pose significant threat to many wetlands in the Region.
- The ecology of some offshore islands may be threatened by weed invasion.
- Exotic plants continue to be introduced to many coastal areas in preference to indigenous species, particularly in landscaping projects.
- Weeds are often introduced through random dumping of garden refuse.
- Weeds proliferating in remote areas can pose a threat to nearby National Parks and Nature Reserves because remote areas are usually unmanaged in this regard.

EXISTING ACTIONS

- ✓ A weed Management Strategy has been developed for Breaksea and Michaelmas Islands (Powell & Collins, 2000).
- ✓ Bay of Isles Aboriginal Community are undertaking removal of Box Thorn from Cull Island in the Recherche Archipelago.
- ✓ A management plan has been developed for the control of Victorian Tea Tree in Shire of Jerramungup.
- ✓ The South Coast Progress Association has removed extensive areas of Victorian Tea Tree from the shores of Princess Royal Harbour.
- ✓ *Zygina spilodactylus* (leafhopper) has been introduced as a biological control for Bridal Creeper (AgWA)
- ✓ Grass selective herbicide is being trialed in Esperance in an attempt to control Pyp Grass (AgWA).
- ✓ City of Albany Draft Environmental Weeds Strategy (CoA, 2000).
- ✓ City of Albany have a Pampas Grass eradication program.
- ✓ Weed action groups are active at Albany, Bremer Bay, Cosy Corner, Esperance and Ravensthorpe.
- ✓ Draft Weed Plan for Western Australia (www.agric.wa.gov.au/programs/app/swp)
- ✓ National Weeds Strategy (Commonwealth of Australia, 1997)
- ✓ Weed Action Group (Shire of Denmark) undertake management and control of weeds on Shire reserves and road reserves.
- ✓ Denmark Environment Centre coordinate BushCare and management and control of weeds on Shire Reserves and road reserves.
- ✓ William Bay National Park Association undertake weed management in the Park.
- ✓ Walpole-Nornalup National Park Association undertaken weed management in the Park.
- ✓ WIMA and AWMA have funded weed eradication programs.
- ✓ The Albany Bushcarers Group (Community) and the Bushcarers Advisory Committee which involves AgWA, CALM, BushCare, CoA and Community, work to address weed issues on reserves.

STRATEGIC OBJECTIVE



Weeds on coastal land and islands will be either eradicated or their spread contained through the implementation of appropriate management controls.

ACTIONS	
	A. Undertake weed surveys and mapping of all coastal land and islands (LG's, CALM, DoLA, WRC, AgWA, Community). MEDIUM.
	B. Address the impacts of weeds on indigenous flora and fauna during all surveys (LG's, CALM, DoLA, WRC, AgWA, Community). MEDIUM.
	C. Determine the impacts of removal of weeds on indigenous flora and fauna during all surveys (LG's, CALM, DoLA, WRC, AgWA, Community). MEDIUM.
	D. Develop weed management strategies for all coastal land and islands (LG's, CALM, DoLA, WRC, AgWA, Community). MEDIUM.
	E. Seek funding for the implementation of weed management strategies when fully developed (CALM, LG's, DoLA, WRC, AgWA, SCMG, Community). ONGOING.

	<p>F. Raise community awareness about weed introduction caused by disposal of garden refuse in coastal reserves, particularly those reserves directly adjacent to residential areas or which may have significant conservation value (AgWA, LG's, CALM, WRC, DoLA, SCMG, Community). HIGH/ONGOING.</p> <p>G. Educate and train staff and community in weed identification and eradication methods (LG's, MfP, AgWA, CALM, WRC, DoLA, SCMG, Community). HIGH/ONGOING.</p> <p>H. Make information available to land developers concerning weeds of concern in an area and information on how to eradicate or prevent their spread (AgWA, LG's, MfP, Community). ONGOING.</p> <p>I. Encourage the use of indigenous coastal plants in landscaping on the coast to reduce the potential for weed escapees (LG's, SCMG, Community). ONGOING</p> <p>J. Support the activities of Weed Action Groups and other community groups involved in weed control or eradication activities (LG's, CALM, SCMG, Community) ONGOING.</p> <p>K. Recommend necessary modifications to management practices in light of research findings (LG's, DoLA, CALM, WRC, AgWA, SCMG, Community). ONGOING.</p>
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9.5 COASTAL REHABILITATION

KEY CONCERNS

- Dune stability in the region is being undermined by unmanaged vehicle, motorcycle and pedestrian access.
- In some areas of the coast, vegetation is contracting because current rehabilitation methods are ineffective at stabilising exposed sand.
- Coastal rehabilitation is often labour intensive and costly.
- Rehabilitation of the coast is a low priority for most land managers.
- Many nurseries in the region have the capacity to grow coastal seedlings for rehabilitation however, revegetation with seeds and/or seedlings is currently not part of the coastal rehabilitation culture of the region.
- A plant species list is not available to suggest species for use in rehabilitation or coastal landscaping.

EXISTING ACTIONS

- ✓ Coastal rehabilitation courses are available through TAFE.
- ✓ Nullaki Coastal Foreshore and Blowout Management Plan (CoA et al, 1998b).
- ✓ Ministry for Planning are developing a Coastal Planning and Management Manual which discusses coastal rehabilitation and will be made freely available to all coastal managers.
- ✓ Some degraded areas of the coast, particularly CALM managed estate, which have been protected from inappropriate access have rehabilitated naturally.
- ✓ NHT grant programs discourage the use of exotic species in rehabilitation works.
- ✓ GreenCorp undertake rehabilitation projects on behalf of land managers.
- ✓ Coastwest / Coastcare funding is available for rehabilitation projects.

STRATEGIC OBJECTIVE

- 🦋 Rehabilitation of damaged coastal environments will be undertaken to enhance the capability of the coast to support sustainable use.



ACTIONS	
	<p>A. Rehabilitation plans should be developed and implemented for damaged coastal environments based on recommendations and prioritisations in coastal management plans (LG's, DoLA, SCMG, Community). ONGOING.</p> <p>B. Minimise disturbance to coastal vegetation, particularly areas which are highly susceptible to wind and water erosion e.g. nearshore dunes (LG's, DoLA, CALM, DEP, MfP, WAPC, WRC, AgWA, SCMG, Community). ONGOING.</p> <p>C. Encourage and support LG works staff and community to undertake coastal rehabilitation training (LG's, SCMG, Community). ONGOING.</p> <p>D. Rehabilitation methods, for a wide variety of situations, should be outlined in the Coastal Planning and Management Manual developed by MfP (SCMG, MfP, LG's, DoLA, Community). HIGH.</p> <p>E. Revegetation with indigenous plants or seeds, of local provenance, should be considered as a rehabilitation option where appropriate in rehabilitation plans (LG's, DoLA, SCMG, Cw/Cc, Community). ONGOING.</p> <p>F. A plant species list for use in rehabilitation and coastal landscaping, relevant to specific areas in the Region, should be developed as part of the Coastal Planning and Management Manual being developed by MfP (MfP, SCMG, LG's, DoLA, Community). HIGH.</p> <p>G. Land Managers should identify and establish areas which can be accessed for use as 'brush banks' for the sourcing of brushing material for coastal rehabilitation (LG's, DoLA, Community). MEDIUM.</p> <p>H. Ensure any coastal vegetation removed or pruned by development on the coast is delivered to an area requiring brush for stabilisation with appropriate support given to its distribution at the location (LG's, DoLA, SCMG, Community). ONGOING.</p> <p>I. Develop a policy which supports Action H (LG's, Community). LOW.</p> <p>J. Private and LG nurseries will continue to be encouraged to grow coastal plants for rehabilitation of the coast (LG's, SCMG, Community). ONGOING.</p> <p>K. Nurseries providing plants or seeds for rehabilitation should be listed in a regional coastal management specification manual (SCMG, LG's, MfP, Community). HIGH.</p> <p>L. Assist the development of community based nursery operations where there is no commercial provider of coastal plant species for rehabilitation purposes (LG's, SCMG, Community). LOW.</p> <p>M. Promote research into the propagation of coastal plant species (LG's, Educational Institutes, Community). MEDIUM.</p>



Intensive use of the coast needs to be well managed, with rehabilitation undertaken when necessary or dunes can become unstable - Munglinup Beach (SoE)

9.6 PROTECTION OF COASTAL LANDSCAPES AND VIEWSHEDS

KEY CONCERNS

- Coastal landforms (eg valued landscapes, scenic landscapes, dunal landscapes) have not been mapped in detail and their protection is dependent upon local policies and development decisions.
- Landscape features are often greatly altered by vegetation clearance, unmanaged access, provision of public facilities and development.
- Most developers clear and level coastal land resulting in the loss of natural contours which are an attractive feature of living on the coast.
- Public and private coastal buildings or other structures are not often designed to integrate or blend into natural landscape features or skylines.

EXISTING ACTIONS

✓Bibbulmun Track, between Albany and Denmark, was planned using landscape impact and viewsheds as a major factor in choice of alignments.

STRATEGIC OBJECTIVE



Coastal landforms, landscape features and viewsheds will be preserved to maintain the attractiveness and natural character of the coast.

ACTIONS	
	A. Undertake detailed landform mapping throughout the region (AgWA, WRC, Educational Institutes, LG's, SCMG, Community). LOW.
	B. Identify areas of high visual sensitivity and zone for their protection (eg. high elevations, wilderness areas, areas of changing ecotones across a landscape, unusual undulations) (LG's, MfP, LG's, DoLA, CALM, Educational Institutes, SCMG, Community). MEDIUM.
	C. Encourage developers of private land to retain natural coastal landscape features and skylines wherever possible (WAPC, MfP, LG's, SCMG, Community). ONGOING.
	D. Encourage the design of Public buildings and structures on the coast which are sympathetic to natural landscape features and skylines (WAPC, MfP, LG's, SCMG, Community). ONGOING.
	E. Address the protection and enhancement of aesthetic landscape values during management planning and site works at all coastal locations (LG's, DoLA, SCMG, Community). HIGH/ONGOING.
	F. Ensure any development on the coast is undertaken with due regard to the potential impact upon visual qualities of the natural landscape (WAPC, MfP, LG's, SCMG, Community). ONGOING.
	G. Provide advice to private landowners about methods for minimising impacts on the coastal landscape and coastal viewsheds (WAPC, MfP, LG's, SCMG, Community). LOW.
	H. Raise the awareness of the public about the value of natural landforms and landscape features as being an integral part of the coastal environment (MfP, LG's, SCMG, Community). MEDIUM.
	I. Identify locations for the construction of lookout and viewing platforms which can optimise appreciation of coastal landscapes (LG's, CALM, DOLA, SCMG, Community). MEDIUM.

9.7 LANDSCAPING IN COASTAL TOWNS

KEY CONCERNS

- Exotics used for landscaping of coastal towns may increase the risk of weed introduction to the coast.
- Indigenous coastal plant species are undervalued for their beauty and landscape qualities.

EXISTING ACTIONS

✓ Landscape Planning Guidelines (in prep.) – MfP, MRD, CALM

STRATEGIC OBJECTIVE



The use of indigenous coastal plant species, of local provenance, will be encouraged for landscaping in coastal towns.

ACTIONS	
	<p>A. Raise community awareness of the landscape value of coastal plant species (SCMG, LG's, MfP, Cw/Cc, Community). ONGOING.</p> <p>B. Raise community awareness of the role and importance of coastal plant species in stabilising coastal dune systems and providing food and shelter to dune inhabitants (SCMG, LG's, MfP, Cw/Cc, Community). ONGOING.</p> <p>C. Encourage private and LG nurseries to grow coastal plants for use in landscaping of coastal towns (LG's, SCMG, Community). HIGH.</p> <p>D. A plant species list for use in coastal landscaping, relevant to specific areas in the region, should be developed as part of the Coastal Planning and Management Manual being developed by MfP (MfP, SCMG, LG's, Community). HIGH</p> <p>E. Design and manage coastal towns to be in harmony with local and regional aesthetic, conservation, biophysical and cultural values (LG's, WAPC, MfP, EPA/DEP, SCMG, Community). ONGOING.</p> <p>F. Avoid the use of exotic plants which have the potential to escape into the natural environment, particularly in towns in close proximity to National Parks and Nature Reserves (LG's, DoLA, MfP, Land Developers, SCMG, Community). HIGH.</p>



Coastal vegetation is undervalued for its beauty and landscape value.

9.8 FERAL ANIMAL MANAGEMENT

KEY CONCERNS

- Feral animal control off CALM managed estate is generally limited resulting in the recruitment of feral animals from these areas.
- Feral animal control on a large scale is expensive and time consuming.
- Unwanted pets, in particular cats, are sometimes dumped in bush areas resulting in an increase in predation of small native animals.
- Foxes and cats are causing extinctions of small to medium weight range mammals. Rabbit grazing results in reduced ground cover and changes in ecology detrimental to many plants and animals. Feral goats, pigs and camels also cause problems.

EXISTING ACTIONS

- ✓ Private landowners and LCD's are participating in feral animal eradication programs to protect livestock and land.
- ✓ Agricultural Protection Board provides advice to landowners on feral animal control methods.
- ✓ Western Shield aims to reduce fox populations primarily on significant areas of CALM managed estate in south-west WA.

STRATEGIC OBJECTIVE



Feral animal eradication and control programs will be implemented to protect native flora and fauna.

ACTIONS	
	<p>A. Continue to undertake and promote feral animal eradication and control programs throughout the South Coast Region (CALM, AgWA, LG's, SCMG, Community). ONGOING.</p> <p>B. Raise community awareness of the problems caused by the dumping of unwanted pets and the impact of cats on native fauna, including, shorebirds (AgWA, LG's, CALM, SCMG, Community). ONGOING.</p> <p>C. Support studies into eradication methods for feral cats (AgWA, CALM, LG's, SCMG, Community). ONGOING.</p> <p>D. Exploit feral cat attraction to fish cleaning stations when considering locations for feral cat trapping (AgWA, CALM, LG's, SCMG, Community) ONGOING.</p> <p>E. Ensure rubbish bins have lids to reduce the availability of an easy food supply for feral rats, cats and foxes in public reserves (LG's, CALM, AgWA, DoLA, SCMG, Community). ONGOING</p>



9.9 FIRE MANAGEMENT

KEY CONCERNS

- Fire management on coastal land requires careful planning as loose sandy soils can be particularly prone to erosion when vegetation is removed.
- There is considerable knowledge about the impact of fire on flora and fauna in the coastal environment, however, this knowledge is far from complete.
- Poor fire management may result in threats to life and property values.
- Visitor safety may be compromised by uncontrolled wildfires.
- Frequent wildfires can lead to adverse habitat changes.

EXISTING ACTIONS

- ✓ LG's have set specifications and requirements for firebreak construction on private land.
- ✓ LG's impose fire bans to reduce the risk of unplanned fire.
- ✓ CALM undertake hazard reduction burning in some areas of conservation estate.
- ✓ CALM and FESA provide advice and assistance to all land managers in regard to fire management.
- ✓ LG's have a statutory responsibility to establish and maintain local Bush Fire Brigades.
- ✓ Gas barbecues are provided at many coastal locations to reduce the risk associated with open fires.
- ✓ Friends of the Fitzgerald River National Park are planning a fire seminar which will discuss the wide ranging opinions of the effect and management of fire.
- ✓ FESA and DoLA have developed an MOU which facilitates FESA's involvement with fire management on UCL.

STRATEGIC OBJECTIVE



The risk of wildfire on coastal land will be reduced by the development and implementation of appropriate fire management strategies.

ACTIONS	<p>A. Continue to record and map fire history of all coastal reserves (CALM, FESA/BFS, DoLA, LG's, Community). ONGOING.</p> <p>B. Study the impacts of fire on flora and fauna (CALM, Educational Institutes, Community). MEDIUM.</p> <p>C. Fire Management Strategies to be developed and implemented for all coastal land in consultation with community and all relevant stakeholders (LG's, FESA/BFS, DoLA, CALM). MEDIUM.</p> <p>D. Continue to support fire and emergency training programs for the community (FESA, CALM, LG's). ONGOING.</p> <p>E. Seek resources to update any fire and emergency equipment which is outdated or is potentially unsafe (FESA, CALM, LG's, Community). HIGH/ ONGOING.</p> <p>F. Recommend necessary modifications to management practices in light of research findings (FESA, CALM, DoLA, LG's, Community). ONGOING</p>
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9.10 ISLAND MANAGEMENT

KEY CONCERNS

- On-ground management works are limited due to distance from management bases and the difficulties associated with landing on islands even in calm weather.
- Little is known about the ecology of the islands of the south coast.
- Some islands remain as Unallocated Crown Land whereas most islands are Nature Reserves.
- Island nature reserves are not generally managed as recreation areas but most accessible islands are being used for recreation.
- Human activities on many islands have resulted in the introduction of feral animals plants and seeds which may impact on ecological processes. As well as introductions by direct human activities, some weed seeds have blown onto islands or have been carried by birds.

EXISTING ACTIONS

- ✓ CALM are currently developing an Esperance Coastal Reserves Management Plan which encompasses the islands of the Recherche Archipelago.
- ✓ Some islands in close proximity to mainland conservation estate are included in National Park or Nature Reserve management plans.
- ✓ CALM's South Coast Regional Management Plan details islands to be added to CALM managed estate.
- ✓ Studies are being undertaken on four islands near Albany to determine the correlation between weed presence and density of breeding seabird populations (Powell & Collins 2000).
- ✓ The Wellstead community are planning a study of Cheyne Island at Cape Riche.
- ✓ Bay of Isles Aboriginal Community have constructed boardwalks on Middle Island and have removed large areas of Box Thorn from Cull Island (Recherche Archipelago Nature Reserve).

STRATEGIC OBJECTIVE

-  Islands of the South Coast will be studied to gain an understanding of ecological processes and also to ensure appropriate management is put in place.

ACTIONS	<p>A. Appropriate funding should be sought to promote, encourage and support research efforts on all islands in the south coast (Cwlth, CALM, GSDC, Educational Institutes, SCMG, Community). ONGOING.</p> <p>B. Prioritise the order in which islands should be assessed for management issues (CALM, Community). HIGH.</p> <p>C. Weed and feral animal control/eradication strategies should be developed for all islands (CALM, Community). MEDIUM.</p> <p>D. Develop and implement management plans for all islands in the South Coast (CALM, DoLA, Community). ONGOING.</p> <p>E. Recommend necessary modifications to management practices in light of research findings (CALM, DoLA, Community). ONGOING.</p>
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9.11 PROTECTION OF ROOSTING, FORAGING AND NESTING SHOREBIRDS ON MAINLAND SHORES

KEY CONCERNS

- Shorebirds roosting, foraging and nesting on mainland shores, inclusive of estuarine shorelines, are being disturbed by vehicles operating off-road, animal exercising and human intrusion resulting in a decline in some populations.
- Shorebirds that make use of mainland shores are often cryptic and therefore not easily seen. Flightless chicks, in particular, are well camouflaged and their only defence mechanism is to freeze, making them more vulnerable to impacts such as vehicles operating off-road.
- There is concern that migratory birds which travel to Australia to feed during summer are being disturbed by vehicles, even in National Parks, increasing their energy expenditure and possibly impacting on their survival during their long flight back to their 'winter' feeding grounds.
- Protection and management of coastal wetlands and estuaries is important to maintain populations of some shorebirds.

EXISTING ACTIONS

- ✓ Hooded Plover Project (Esperance and Bremer Bay) is supported by Birds Australia and aims to identify important areas for Hooded Plovers.
- ✓ Coastcare 'Save our Shorebirds' Campaign.
- ✓ A Ramsar site exists within the Shire of Esperance.
- ✓ Lake Warden Management Plan (CALM, 1999-2009), is currently being implemented.
- ✓ Shorelines of estuaries are protected within national parks and nature reserves to the low water mark.

STRATEGIC OBJECTIVE



Shorebirds which roost, forage and nest on mainland shores will be protected from disturbance.

ACTIONS	
	<p>A. Determine which mainland shores are commonly used or are important to shorebirds for roosting, foraging or nesting and what birds are active when (LG's, CALM, Birds Australia, Educational Institutes, Community). HIGH.</p> <p>B. Incorporate protection of shorebird roosting, foraging and nesting sites in coastal management planning (LG's, CALM, DoLA, WRC, Educational Institutes, SCMG, Community). ONGOING.</p> <p>C. Raise community awareness of the importance of particular sites for shorebird roosting, foraging or nesting (LG's, CALM, DoLA, WRC, Birds Australia, Cc/Cw, SCMG, Community). ONGOING.</p> <p>D. Prohibit vehicle movement and animal exercising, and provide for sanctions in the event of non-compliance, in areas identified as being commonly used or important to shorebird roosting, foraging or nesting at times when birds are present (LG's, CALM, DoLA, WRC, Community). HIGH.</p> <p>E. Support Hooded Plover Project and capitalise on the educational opportunities this project has had in regard to protection of shorebirds (LG's, DoLA, CALM, SCMG, Community). HIGH.</p> <p>F. Suggest, in a regional coastal management specification manual, a range of temporary barriers which can be used to protect nesting shorebirds. (SCMG, LG's, Community) HIGH.</p> <p>G. Recommend necessary modifications to management practices in light of research findings (CALM, WRC, DoLA, LG's, SCMG, Community). ONGOING.</p>

9.12 MINERAL EXTRACTION

KEY CONCERNS

- It is expected that mining activity in some areas will increase over the coming years.
- There is concern that the natural environmental values of the coast will be compromised and degraded through mining activities and that Aboriginal and European heritage sites will not be respected.
- Mining for lime in particular, has the potential to impact heavily on the coastal environment if not directed and controlled.
- Water for mineral processing may need to be drawn from the sea.

EXISTING ACTIONS

- ✓ CALM become involved in mineral extraction issues in CALM managed estate and land which is proposed to be added to CALM managed estate.
- ✓ Some mining proposals are assessed by Environmental Protection Authority.
- ✓ Department of Minerals and Energy provide advice on siting of coastal mining activities to reduce impacts.

STRATEGIC OBJECTIVE



Mining activities on the coast and in the sea will be environmentally and economically sustainable and supported by best practice management and rehabilitation methods.

ACTIONS	
	<p>A. Encourage studies into viable rehabilitation methods for use on mined or quarried sites in the coastal area (DoMPR, DRD, DEP, AgWA, CALM, LG's, GSDC, Educational Institutes, SCMG, Community). MEDIUM.</p> <p>B. All mining activity on the coast will be supported by best practice rehabilitation planning and implementation (DoMPR, DRD, DEP, AgWA, CALM, LG's, SCMG, Community). MEDIUM.</p> <p>C. Undertake planning to determine preferred areas for the mining or quarrying of limesand and/or other minerals which do not impact on the aesthetic and environmental values of the coast (DoMPR, DRD, DEP, AgWA, CALM, LG's, SCMG, Community). MEDIUM.</p> <p>D. Ensure significant Aboriginal and European heritage sites are protected from mining activities at all times (DoMPR, DRD, AAD, DEP, AgWA, CALM, LG's, SCMG, Community). ONGOING.</p> <p>E. Encourage all mining applications on the coast and in the sea to be referred to the Environmental Protection Authority and the Minister for the Environment (State Cabinet, EPA, DEP, DoMPR, LG's, SCMG, Community). HIGH.</p>





Limesand mining is expected to increase as demand for lime increases for mineral processing and agricultural needs. - Bornholm - (CoA).



Great-winged Petrel chicks lay defenceless in their burrows awaiting the return of their parents. - Breaksea Island Nature Reserve, King George Sound.



National Parks and Nature Reserves offer protection for vast areas of coastal flora and fauna
- Cape Le Grande National Park -



Monitor lizards are a commonly seen reptile along the south coast.

10. COASTAL RECREATION AND ACCESS ISSUES

strategic objectives and actions



10.1 COASTAL ROADS

KEY CONCERNS

- There appears in the most part to be adequate attention paid to providing good vehicle access to most coastal locations however little attention is paid to providing good visitor infrastructure at road termini e.g. car parks.

EXISTING ACTIONS

- ✓ Authorised roads in the coastal area are generally in good condition.

STRATEGIC OBJECTIVE



Road maintenance in the south coast will continue to be of a high standard and will be linked with the provision of good management infrastructure at their coastal terminus.

ACTIONS	<p>A. Reprioritise some road funding into providing good management infrastructure at coastal termini (LG's, MRD, Community). HIGH/ONGOING</p> <p>B. Incorporate in the allocation of road expenditure provision for the maintenance of coastal locations which are located at their terminus (LG's, MRD, Community). HIGH</p> <p>C. Continue to ensure road safety by providing advisory signs and slashing roadside vegetation where necessary (LG's, MRD, CALM). ONGOING</p>
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10.2 DISABLED ACCESS

KEY CONCERNS

- The provision of disabled access (onto beach and into sea) will always be a challenge.
- Only 11 built coastal locations in the region offer some form of disabled access (SCMG, 2000a).

EXISTING ACTIONS

- ✓ Local Governments are required to develop a Disability Service Plan which outlines their efforts in providing support for disabled people.
- ✓ A good example of disabled access can be found at Bayonet Head (CoA) where a lookout, with level path and table with no seating has been constructed to allow for wheelchair access.
- ✓ Great Southern Development Commission are working to incorporate Action A. into Vancouver Waterways implementation.

STRATEGIC OBJECTIVE



Disabled access will be provided wherever possible on the coast.

ACTIONS	<p>A. Investigate methods for providing disabled access into the sea from jetty structures (SoE, SoR, SoJ, CoA, DS, GSDC, DoT). HIGH</p> <p>B. Incorporate disabled access options to the coast and sea in Disability Service Plans, coastal management plans and a regional coastal management specification manual (SCMG, LG's, DS, Community). HIGH/ONGOING</p>
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10.3 OFF-ROAD VEHICLE ACCESS

KEY CONCERNS

- 41% of beaches (outside CALM managed estate) are accessible to off-road vehicles (SCMG, 2000a).
- The registration of 4WD vehicles in Western Australian has increased significantly over the last 30 years to be now approximately 1 in 5 registered vehicles and an estimated 3 in 5 in country areas.
- Four wheel driving and motorcycling are valid recreational pursuits, however they are often detrimental to the coastal environment when not appropriately managed.
- Off-road vehicle impacts can result in coastal locations becoming public liabilities rather than assets.
- Off-road vehicle access onto the beach can be dangerous to beach users at Little Wharton Beach, Cape Le Grand Beach, Wylie Bay, Wylie Cove (SoE), Mason Bay, Twelve Mile Beach (SoR), John Cove, Blossoms Beach, Little Boat Harbour (SoJ), Nanarup Beach, Mutton Bird Beach, Cosy Corner, Nullaki Peninsula (CoA), Wilson Inlet Sandbar, Boat Harbour, Parry's Beach (SoDe).
- Off-road vehicles on beaches disturb nesting, roosting and foraging seabirds.
- Use of unregistered vehicles on public land presents the community with safety and liability issues.
- Land managers, in the most part, are unable to adequately police the illegal or inappropriate use of off-road vehicles particularly in remote locations and have not been able to do much maintenance, improvement or rationalisation of off-road vehicle access.
- Off-road vehicle accidents, usually collisions, are becoming more common. Some have resulted in loss of life.
- Local Government can adopt the Control of Vehicles (Off-road Areas) Act, but most are unwilling as they are unable to appropriately enforce it.

EXISTING ACTIONS

- ✓ Unregistered vehicles are prohibited from use on LG reserves and CALM managed estate.
- ✓ Shire of Esperance have prohibited off-road vehicle access into popular swimming areas at Wharton Beach.
- ✓ The Control of Vehicles (Off-road Vehicles) Act 1978 allows for the:
 - gazettal of areas for the purpose of off-road vehicle use;
 - restriction of off-road vehicle use to gazetted areas or private property;
 - registration of vehicles other than those licensed under the Road Traffic Act 1974 (ie. allows unregistered vehicles to be registered for use in gazetted areas);
 - enforcement of safety measures such as helmets and seatbelts;
 - use of vehicle by drivers over the age of 8 years;
 - issue of infringement notices to non-compliers.

STRATEGIC OBJECTIVE

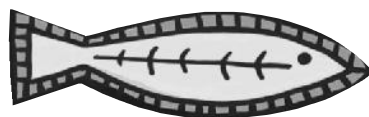


The environmental and social impacts of off-road vehicles, both registered and unregistered, will be reduced by improved management and regulation.



Unmanaged off-road vehicle access is causing damage to the dune environment at Torbay (CoA).

ACTIONS	
	A. Undertake mapping of all off-road tracks and plan which tracks should be closed and rehabilitated, which should be managed to facilitate access and which should be considered for development to a more formal road access (i.e. gravel or bitumen) (LG's, DoLA, MRD, Cw/Cc, CALM, SCMG, Community). HIGH
	B. Seek funding to implement off-road track planning (LG's, DoLA, MRD, Cw/Cc, SCMG, Community). HIGH
	C. Prohibit or zone off-road vehicle use where public safety is put at risk by vehicle movement at popular beaches (LG's, DoLA, CALM, SCMG, Community). HIGH
	D. Declare an area within each Local Government area which is to be managed for motorcycle use and which is easily accessible from coastal towns (LG's, DoLA, Community). HIGH [City of Cockburn have a long history of supporting off-road motorcycle users and have assisted the development of the Coastal Motorcycle Club to help reduce the numbers of motorcycles being used in valuable remnant bush areas within the City. The Club now has a 99 year land lease adjacent the coast in an industrial area and is fully self sufficient.]
	E. Introduce a speed limit for off-road vehicles on beaches where such activities are permitted (State Government, LG's, Police Department, Community). HIGH
	F. Assess the introduction of a system where off-road vehicle users are required to buy a permit which allows them to use their vehicles in specified areas where vehicles are prohibited from entering without permission with collected revenue being channelled into funding the system and the production of coastal management information (LG's, DoLA, Community). LOW
	G. Provide permit fee relief to off-road vehicle users who undertake accreditation with recognised off-road vehicle training courses or who participate in management or rehabilitation work on the coast (LG's, DoLA, Community). LOW
	H. Encourage the community to participate in policing for off-road vehicle users who do not display a permit in areas where vehicle access is not allowed (LG's, DoLA, Community). ONGOING
	I. Seek government support for an increase in licenced off-road vehicle (cars and motorcycles) registration fees with revenue to be allocated for coastal management purposes (SCMG, LG's, DoLA, Community). LOW
	J. Seek to discourage commercials and advertisements which advocate irresponsible use of off-road vehicles on the coast (CZC, MfP, DoT, DEP, SCMG, LG's, Community). HIGH
	K. Support and promote campaigns aimed at managing off-road vehicle use and raising community awareness of the impacts of off-road vehicles (LG's, DoLA, CALM, DEP, WRC, MfP, Cw/Cc, SCMG, Community). ONGOING
	L. Provide information on track stabilisation methods in the coastal planning and management manual being prepared by MfP (MfP, SCMG, LG's, Community) HIGH
	M. Adopt the Control of Vehicles (Off-road Areas) Act 1978 for designated areas where enforcement is possible and where coastal user safety is compromised by unregistered vehicles (LG's, DoT, Police, Community). MEDIUM



10.4 WALK TRACKS AND FORMAL DUAL-USE PATHS

KEY CONCERNS

- Coastal walk tracks and paths often provide a scenic route for people to enjoy, however unmanaged walk tracks and paths in dunes often result in degradation of coastal locations through soil erosion, loss of vegetation cover and introduction of weeds to disturbed areas.

EXISTING ACTIONS

- ✓ City of Albany Trails Master Plan
- ✓ City of Albany, Shire of Jerramungup and Shire of Esperance are working towards the linking and extension of dual use paths along the built areas of their coast e.g. Middleton Beach Walkway, Esperance Coastal Walk.
- ✓ State Trails Master Plan (Draft).

STRATEGIC OBJECTIVE



Managed walk tracks and formal dual-use paths, of varying lengths, will be developed in all coastal towns to facilitate movement to, from and along sections of the coast.

ACTIONS	
	A. Develop planning to support the construction of walking tracks and formal dual-use paths, of varying lengths, in all coastal towns to facilitate movement to/from and along the coast where appropriate (LG's, SCMG, Community). MEDIUM
	B. Maintain walking tracks and formal dual-use pathways to appropriate standards which provide safe and enjoyable walking (LG's, Community). HIGH/ONGOING
	C. Consider the designation of some coastal tracks for use by horses or bicycles and manage appropriately (LG's, Community). MEDIUM
	D. Outline construction methods and materials for walk tracks and dual-use paths in a regional coastal management specification manual (SCMG, LG's, Community) HIGH

10.5 LONG DISTANCE WALK TRAILS

KEY CONCERNS

- Well managed walk trails can provide the most environmentally friendly way of seeing the south coast, yet there are no established long distance walk trails between Albany and Esperance.
- For the concept of long distance walk trails to become a reality projects need to be adopted by agencies or groups who can remain involved in management for a long period of time.
- Aboriginal people are in need of major projects to promote employment and training opportunities for young people, but may not have access to the necessary expertise to take walk trail projects on.
- Trail management, in general, requires a very high level of on-going maintenance with trails in coastal areas being particularly vulnerable to erosion and exposure to weather.
- Some people have a preference for undertaking a circuit walk that provides overnight facilities and allows them to return to their starting point within 2 days.
- Threatened species, wilderness zones, visitor safety and threats such as dieback disease and fire are all issues that will need to be considered very carefully in any proposals affecting CALM managed estate or other land managed for its environmental values.

EXISTING ACTIONS

- ✓ Bibbulmun Track connects Walpole and Albany following the coast.
- ✓ Friends of Bibbulmun Track and other volunteers assist CALM in maintaining the Bibbulmun Track.

STRATEGIC OBJECTIVE



Sustainable development of long distance coastal walk trails between Albany and Esperance that have strong links with Aboriginal people and their cultural values will be promoted.

ACTIONS	<p>A. Seek funding to develop a concept scoping paper for the development of long distance coastal walk trails between Albany and Esperance which includes suggestions for potential routes (SCMG, SCRIPT, GSDC, GEDC, AAC, SAC, BoIAC, WATC, ERTA, GSTA, CALM, DoLA, LG's, ACC's, Community). HIGH</p> <p>B. Only develop walk trails where on-going maintenance and environmental sustainability are ensured (SCMG, SCRIPT, GSDC, GEDC, AAC, SAC, BoIAC, WATC, ERTA, GSTA, CALM, DoLA, LG's, ACC's, Community). ONGOING</p> <p>C. Incorporate potential routes for long distance, overnight coastal walk trails into local coastal strategies and management plans in the region (SCMG, LG's, CALM, DoLA, Community). HIGH</p> <p>D. Encourage and support aboriginal ownership of coastal walk trail concepts (SCMG, SCRIPT, GSDC, GEDC, AAC, SAC, BoIAC, WATC, ERTA, GSTA, CALM, DoLA, LG's, ACC's, Community). ONGOING</p>
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10.6 BOAT LAUNCHING

KEY CONCERNS

- Many formal boat launching ramps are not positioned to provide protection in windy conditions with users complaining of boat damage in certain conditions.
- Hopetoun marina boat ramp is of particular concern to some Hopetoun residents as they believe the design of the groyne is flawed and does not provide the level of protection to boats that was intended.
- Many Esperance people prefer to launch boats from the beach rather than the Bowe Park boat ramp because it drops off into deep water and at low tide boats are able to be pushed under the finger jetty in certain wind conditions.
- Provision of parking for vehicles and trailers is a significant problem at many boat ramps, including beach launching sites.
- The natural features and openness of much of the coast can limit safe boat launching access.

EXISTING ACTIONS

- ✓ Department of Transport (Marine Division) can provide advice to Local Government about design and specifications for boat ramp construction.
- ✓ Local Government can apply for funding to construct boat ramps through the Boating Facilities Scheme (DoT).
- ✓ Shire of Esperance are commissioning a feasibility study into locating a boat ramp in Duke of Orleans Bay Regional Park.

STRATEGIC OBJECTIVE



The construction of boat ramps in the South Coast will be based on best coastal engineering practice, environmental sustainability and with adequate parking being provided to support users.

ACTIONS	<p>A. Review formal and beach boat launching sites in all Shires/City and determine problems, if any, associated with those sites including provision of vehicle and trailer parking and safety issues (LG's, DoT, CALM, Community). HIGH</p> <p>B. Remediate problems identified through above review in consultation with Department of Transport (Marine) (LG's, DoT, Community). ONGOING</p> <p>C. Seek to upgrade boat launching facilities at Hopetoun Groyne and Esperance Bowe Park boat ramp to ensure user safety (DoT, SoR, SoE, Community). HIGH</p> <p>D. Seek funding through the Recreational Boating Facilities Scheme (DoT) to identify potential sites for construction of formal boat launching facilities throughout the south coast (LG's, DoT, Community). MEDIUM</p> <p>E. Erect signage at all formal and beach boat launching sites to provide information about water depth, local landmarks, marine features, navigational lights, potential dangers, local radio frequency, and Department of Transport boat safety requirements (DoT, LG's, Sea Rescue Groups, FESA, Community). HIGH</p> <p>F. Do not locate boat ramps in areas which are frequently used by whales for calving, resting or frolicking (LG's, DoT, CALM, SCMG, Community). HIGH/ONGOING</p>
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10.7 VISITOR SAFETY

KEY CONCERNS

- Off-road vehicle and pedestrian tracks have been forged into coastal areas which may be dangerous such as along the top of coastal hills or cliffs e.g. Chimneys and Blowhole (Unallocated Crown Land, SoJ).
- Off-road vehicle users may get themselves into trouble in remote areas of the coast through becoming bogged, disoriented or stranded due to steep inclines or inability to access assistance.
- Freak waves and high energy swells are an inherent danger along the South Coast with an average of one death every eighteen months occurring from people being swept off rocks while fishing or exploring.
- Safety issues have not been fully explored by Local Government and Department of Land Administration in the South Coast.

EXISTING ACTIONS

- ✓ CALM undertake visitor risk assessments for all CALM managed locations.
- ✓ CALM offer training in visitor risk assessment to Local Government.
- ✓ FishSafe/CoastSafe Campaign assisted in the installation of warning signage in potentially dangerous areas of the coast
- ✓ Danger signs are erected at potentially dangerous sites in CALM managed estate.
- ✓ CALM regularly review visitor safety in conjunction with Police and State Emergency Services.

STRATEGIC OBJECTIVE



Safety risks to visitors in the South Coast will be minimised through appropriate management.

ACTIONS	<p>A. Undertake visitor risk assessments for all coastal locations in the South coast (LG's, DoLA, CALM). HIGH</p> <p>B. Review off-road vehicle and pedestrian access which traverse or lead to areas of high visitor risk in all coastal areas (LG's, DoLA, CALM). HIGH</p> <p>C. Develop and implement appropriate management actions to ensure visitor safety is maximised at all coastal locations (LG's, DoLA, CALM, SCMG). HIGH</p> <p>D. Continue to promote safety messages through the FishSafe/CoastSafe campaign or through consistent and recognisable signage (LG's, SCMG, SES, Police, CALM, Community). ONGOING</p> <p>E. Promote safe working practices in high risk areas (LG's, DoLA, CALM, Police, SES). ONGOING</p>
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10.8 INFORMAL CAMPING

KEY CONCERNS

- Local Government are unable to undertake the management of the majority of informal camping locations because of their distance from management bases and the costs involved.
- Environmental impacts at informal camp sites are an ever increasing financial liability for land managers.
- Most informal camping locations are on Unallocated Crown Land and DoLA do not appear to be in a position to assist with the issue.
- People are attracted to informal camping locations because they can “do whatever they want there” (SCMG, 2000a) leading to most areas being highly degraded.
- All informal camping locations in the South Coast are in poor or less than good condition (SCMG, 2000a).
- Travel booklets which promote free camping exacerbate problems for land managers by encouraging people to visit these areas.
- Local Governments assume some legal liability when they provide even minor management infrastructure at informal camping locations which exist on Unallocated Crown Land.
- Problems occurring at informal camping locations include stripping of vegetation for fire fuel, soil erosion, random disposal of body waste and grey water, overcrowding, conflict between pedestrians and vehicles, inappropriate access, motorcycle and unregistered vehicle use, rubbish dumping, increased wildfire risk and loss of environmental integrity (SCMG, 2000a).
- Health risks are associated with the random disposal of body waste and grey water.
- For many people informal camping is the only affordable holiday option.

EXISTING ACTIONS

- ✓ Local communities at Starvation Boat Harbour, Cape Riche and Parry’s Beach have taken on management of these locations which were previously informal camp grounds.
- ✓ Local Government are willing to work with local communities in sharing management of some coastal locations.
- ✓ Some parts of West Cape Howe National Park allow for vehicle based camping particularly for fisher-people.
- ✓ Shire of Esperance have formed the Coastal Reserves Working Party to review management and use of coastal reserves.

STRATEGIC OBJECTIVE



Camping in the south coast will only occur at well managed locations with campers contributing to the cost of management and infrastructure.

Campers often bring quad-bikes to informal camp grounds. If used irresponsibly, the bikes can cause significant damage to dunes.
- Munglinup Beach (SoE).



ACTIONS	<p>A. Review liability issues associated with Local Government management of Unallocated Crown Land (LG's, DoLA, WAMA). HIGH.</p> <p>B. Review liability issues associated with local communities providing management on LG reserves and/or Unallocated Crown Land (LG's, DoLA, WAMA, Community). HIGH.</p> <p>C. Provide support for community management of coastal locations used for informal camping where deemed appropriate (LG's, DoLA, Community). ONGOING.</p> <p>D. Review potential health risks associated with informal camping (LG's, DoLA). HIGH.</p> <p>E. Identify in LG coastal management plans coastal locations currently used for informal camping and recommend their development as:</p> <ul style="list-style-type: none"> • Closed areas requiring rehabilitation (eg) camp sites on random tracks • Day-use only (eg) Wharton Beach, SoE; • LG managed campsites (eg) Cosy Corner, CoA; • Community managed campsites (eg) Parry Beach, SoDe; • Leased low-key nature-based tourist accommodation centres (eg) Woody Island Nature Reserve, CALM; or • Leased caravan parks run by private enterprise or LG's (LG's, DoLA, SCMG, Community). HIGH. <p>F. Designate and manage small areas at all informal camp sites where camping can continue until formal management decisions are made and are implemented (LG's, DoLA, Community). HIGH.</p> <p>G. Install signage which directs and informs campers of management issues and which directs their use of the designated area (LG's, DoLA, Community). HIGH.</p> <p>H. Collect a fee which can be paid by campers to cover the costs of providing consistent management presence at campsites where LG or community management is required (LG's, DoLA, Community). MEDIUM.</p> <p>I. Explore the option of employing a resident/seasonal caretaker to provide management presence at campsites recommended for LG or community management (DoLA, LG's, Community). MEDIUM.</p> <p>[City of Albany employ a resident ranger at Cape Riche campsite which is co-managed by the Wellstead community; The Parry Beach Group and Shire of Denmark co-manage Parry Beach campsite and allow volunteer camp managers to stay at the site in a small cottage]</p> <p>J. Provide toilets and water at all campsites recommended for LG or community management (LG's, DoLA, Community). HIGH.</p> <p>K. Discourage the inclusion of South Coast locations in 'Free Camping Guides' (LG's, DoLA, WATC, ERTA, GSTA, GSDC, SCMG, Community). HIGH.</p> <p>L. Develop and publish a camping guide to promote suitable camping locations within the South Coast Region in partnership with all relevant land managers (SCMG, LG's, ERTA, GSTA, WATC, GSDC, GEDC, CALM, DoLA, Community). MEDIUM.</p> <p>M. Ensure camp grounds managed by LG or community are developed according to site plans produced by professional coastal or landscape planners or as specified in a regional coastal management specification manual (LG's, DoLA, SCMG, Community). MEDIUM.</p> <p>N. Ensure there is adequate segregation between camping, nature-based accommodation centres and day use areas (LG's, DoLA, SCMG, Community). ONGOING.</p>
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10.9 PROVISION OF BEACH SHADE

KEY CONCERNS

- There is an increasing awareness of the risk of skin cancer in the community.
- Beach users' risk of excessive solar UVR exposure is extreme because beaches are commonly used in summer when annual UVR levels are at their peak, beach users typically wear minimal clothing, beach users often spend extended periods of time at the beach, there is little shade on the beach itself and there may not be sufficient shade at adjacent public reserves and there are high levels of indirect UVR (reflection off water) (Cancer Foundation of Western Australia, 1999).
- Lack of shade may limit the number of people who visit coastal locations particularly families with small children.
- Shade shelters have traditionally not been well designed.
- Shade shelters are often placed too close to the shore resulting in wave damage or sand inundation.
- Shade shelters require regular maintenance to ensure their stability and safety to users.

EXISTING ACTIONS

- ✓ Shade shelters exist at some popular coastal locations, mainly grassed picnic areas associated with town beaches.
- ✓ Picnic areas are often sited under the shade of existing trees.
- ✓ Shade for the public – Guidelines for local government (Cancer Foundation of Western Australia, 1999).
- ✓ Shade shelters are provided at some CALM locations e.g. Cape Le Grand.

STRATEGIC OBJECTIVE



Creative shade solutions will be provided at all appropriate coastal locations.

ACTIONS	
	A. Determine coastal locations, including beaches, where shade shelters can be constructed (LG's, Community). MEDIUM.
	B. Design creative shade solutions which are recognised as being characteristic to the South Coast and each Local Government area (LG's, SCMG, Community). MEDIUM.
	C. Ensure shade shelters are maintained to a high standard to ensure continued utilisation and user safety (LG's, Community). ONGOING
	D. Incorporate creative designs for shade shelters in a regional coastal management specification manual (SCMG, LG's, Community). MEDIUM
	E. Undertake the planting of coastal trees indigenous to the south coast, such as Melaleuca lanceolata and Eucalyptus platypus, to provide shade at car parks, picnic grounds and foreshore reserves (LG's, Community) MEDIUM
	F. Combine tree planting and construction of shade shelters where appropriate to maximise shade options for beach users (LG's, Community) ONGOING



10.10 PUBLIC TOILETS

KEY CONCERNS

- Public toilets are essential at all popular coastal locations.
- Toilets have the potential to impact on the environment, particularly groundwater, if not constructed and maintained appropriately.
- There are health risks associated with the random disposal of body waste and grey water at informal camping locations.

EXISTING ACTIONS

- ✓ Local Governments can, in some cases, seek funding assistance from State and Commonwealth grant schemes for the construction of toilets e.g. Coastcare.
- ✓ Composting toilets have been constructed at some informal camping locations.

STRATEGIC OBJECTIVE



Hygienic and well maintained toilets will be strategically located at high use coastal locations to reduce the health risks associated with their absence.

ACTIONS	
	A. Determine coastal locations where toilets are necessary and can be constructed (LG's, DoLA, Community). HIGH.
	B. Support and encourage the construction of composting toilets which minimise the effects on groundwater contamination (LG's, DoLA, CALM, WRC, SCMG, Community). ONGOING.
	C. Do not locate in situ septic toilets in close proximity to the coast or other water bodies (LG's, DoLA, MfP, SCMG, Community). ONGOING.
	D. Include selected/preferred toilet design in a regional coastal management specification manual (SCMG, LG's, DoLA, MfP, Community). HIGH.

10.11 RUBBISH DISPOSAL AT REMOTE LOCATIONS

KEY CONCERNS

- Unlined, open pits are used to dispose of rubbish at many remote locations.
- Rubbish removal from sites does not occur often enough in many remote locations.
- Open rubbish pits can attract vermin and can also become a fire risk.
- The environmental integrity of many remote and informal camping locations is reduced by inappropriate disposal of rubbish.
- Fish offal is often left on beaches or in dunes encouraging the presence of flies, feral rats and cats and detracting from coastal aesthetics.

EXISTING ACTIONS

- ✓ CALM assist in rubbish collection at some remote camping locations on Shire or Crown Land which is in close proximity to Ranger stations.
- ✓ Some local governments are active in collecting rubbish from remote locations during peak use periods.
- ✓ Some Local governments provide fish cleaning facilities and rubbish receptacles for fish offal.

STRATEGIC OBJECTIVE



The disposal of rubbish will not detract from the environmental or aesthetic integrity of coastal locations.

ACTIONS	<p>A. Local Government and CALM should continue to liaise regarding rubbish collection from locations in close proximity to Ranger stations (LG's, CALM). ONGOING.</p> <p>B. Provide fish cleaning stations and appropriate offal receptacles at all popular fishing locations (LG's, DoLA, CALM, Community) HIGH</p> <p>C. Clear bins on a regular and consistent basis to avoid overflow particularly during peak use periods (LG's, DoLA, CALM). ONGOING.</p> <p>D. Signage should encourage users of remote locations to take their rubbish home, particularly in areas where bins cannot be provided (LG's, DoLA, CALM). HIGH.</p> <p>E. Develop a logo or theme to promote the 'take rubbish home' message (LG's, DoLA, CALM). HIGH.</p> <p>F. Remove or infill established rubbish pits at remote locations to discourage further use (LG's, DoLA). HIGH.</p> <p>G. Support coastal and marine clean up days by providing extra bins and clearance of bins on those occasions (LG's, CALM, Community). ONGOING</p>
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10.12 PROVISION OF BARBECUES

KEY CONCERNS

- Coastal locations used for informal camping are being stripped of surrounding vegetation to fuel open fires.
- Open fires increase the risk of bush fire.
- Open fires are not only used for camp cooking but also to provide warmth.
- Barbecues which require coins to operate are often vandalised and money stolen.
- Open fires most often occur at remote camping locations away from fire containment services and organisations.

EXISTING ACTIONS

- ✓ Barbecues are provided at some popular coastal locations.

STRATEGIC OBJECTIVE



Free gas barbecues will be constructed at coastal locations where deemed appropriate by land managers and community.

ACTIONS	<p>A. Determine areas where vegetation stripping to fuel fires is occurring in all coastal reserves (LG's, DoLA, CALM). HIGH.</p> <p>B. Provide free gas barbecues, which meet Australian Safety Standards, at coastal locations where vegetation stripping occurs and where such infrastructure is deemed appropriate by land managers and the community (LG's, DoLA, CALM, SCMG, Community). MEDIUM.</p> <p>C. Locations which have been heavily impacted by vegetation stripping will be closed to the public, relocated or rehabilitated to enable sustainable use (LG's, DoLA, CALM). MEDIUM.</p> <p>D. Educate the community on the impacts associated with vegetation stripping and fallen wood collection (LG's, DoLA, CALM, SCMG, Community). LOW.</p> <p>E. Prohibit the lighting of open fires on coastal reserves, except where appropriate fire containment structures and wood have been supplied and as seasonal fire bans dictate (LG's, DoLA, CALM). HIGH.</p> <p>F. Encourage campers to use their own gas cookers rather than light fires for cooking (LG's, CALM, DoLA, Community). ONGOING.</p> <p>G. Incorporate preferred barbecue design(s) in a regional coastal management specification manual (SCMG, LG's, Community). HIGH.</p>
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10.13 ANIMAL EXERCISING

KEY CONCERNS

- The exercising of animals, such as dogs and horses, on beaches is sometimes in conflict with other passive use.
- Dogs are often left to run unattended by people swimming or surfing causing some disturbance to other users, with or without dogs.
- Some people are afraid that horses which are exercised on popular beaches may get out of control and run them down.
- Pets are not allowed in nature reserves and are allowed in National Parks only in specially zoned areas. There are currently no animal exercising zones in National Parks in the South Coast Region.

EXISTING ACTIONS

- ✓ Some beaches have been zoned to support animal exercising in most Shires e.g. Middleton Surf Beach, Goode Beach (CoA).
- ✓ Horse riding on some beaches is acknowledged as a traditional use which is allowed to continue with some restrictions placed on time of day at which it is allowed to occur. These times are generally very early and occur when most beaches are under utilised by other users (e.g. Griffith Street Beach (CoA), Wylie Cove/Bandy Creek Beach (SoE).
- ✓ Most LG's regulate that dogs should remain on leads when being walked along beaches to limit interference with other users.

STRATEGIC OBJECTIVE



Animal exercising, particularly horses and dogs, will occur in coastal areas zoned specifically for this purpose.

ACTIONS	<p>A. Seek community input on zoning and regulations for animal exercising (LG's, Community). ONGOING.</p> <p>B. Identify coastal areas where animal exercising can be zoned and regulated (LG's, Community). HIGH.</p> <p>C. Outline zoning and regulations in LG coastal management plans (LG's, Community). HIGH.</p> <p>D. Develop by-laws which recognise designated animal exercising areas, the conditions assigned to them and fines for non-compliance (LG's) HIGH.</p> <p>E. Erect clear and informative signage regarding location of animal exercise areas at relevant beaches (LG's, Community). HIGH.</p>
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Horse riding is enjoyed by many and is a valid coastal recreational pursuit
- Muttonbird Beach - (CoA).

10.14 SANDBOARDING

KEY CONCERNS

- Sandboarding usually occurs in areas which are devoid of vegetation. In these areas, it does not generally create a problem. However, if it occurs in areas which are normally vegetated it can lead to long term disturbance and instability of dune systems.
- There are no areas approved for sandboarding within CALM managed estate.

EXISTING ACTIONS

✓ Sandboarding is an illegal activity in some Local Government reserves.

STRATEGIC OBJECTIVE



Areas will be designated for sandboarding where it can occur without causing undue disturbance to the coastal environment.

ACTIONS	<p>A. Identify areas which have potential as sandboarding destinations (LG's, Community). HIGH.</p> <p>B. Seek community input on the selection of areas for sandboarding (LG's, Community). HIGH.</p> <p>C. Advertise the location of selected sandboarding destinations and promote their use (LG's, Community). ONGOING.</p> <p>D. Raise community awareness of the impacts of sandboarding in inappropriate coastal areas (LG's, Cw/Cc, SCMG, Community). HIGH.</p> <p>E. Rehabilitate areas affected by sandboarding (LG's, CALM, DoLA, CW/Cc, Community). ONGOING.</p>
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10.15 MAINTENANCE OF JETTY STRUCTURES

KEY CONCERNS

- Jetties are often demolished rather than maintained because of the high costs involved.
- Demolition of jetties can result in the loss of a community focal point on the coast.
- Jetty structures are not fully recognised for their importance to recreation and tourism, or their potential for facilitating disabled access into the sea.
- Some jetty structures, which have been built without appropriate approvals, are unsafe and a danger to unwary users.

EXISTING ACTIONS

✓ Friends of Esperance Tanker Jetty was formed to assist in fund raising and labour required to maintain the Esperance Tanker Jetty.

STRATEGIC OBJECTIVE



Jetties are recognised as having significant recreational and tourism value and provide the potential for facilitation of disabled access into the sea.

ACTIONS	<p>A. Audit the condition and maintenance requirements of all jetty structures in the south coast (LG's, DoT, APA, EsPA). HIGH</p> <p>B. Encourage community ownership of revenue raising, management and maintenance of existing jetties (LG's, DoT, APA, EsPA). ONGOING</p> <p>C. List jetty structures in Municipal Heritage Inventories if historically significant (LG's). MEDIUM</p> <p>D. Maintain jetties whenever possible, as important historical, cultural and social focal points for the community (LG's, DoT, APA, EsPA, SCMG, Community). ONGOING</p> <p>E. Encourage the removal of unsafe and unlicensed jetties where appropriate (DoT, WRC, LG's, Community). HIGH</p>
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Off-road vehicles travel over dune vegetation to get traction through deep sand.
- Bremer Bay - (SoJ).



Rubbish disposal at informal camp sites attract vermin and are visually unappealing.



Timber boardwalks can facilitate pedestrian access through vegetation. - Hopetoun (SoR.), East Mt Barren in the background -



At The Gap (Torndirrup National Park) Dept. of CALM has created a winding concrete path to facilitate disabled access to one of the most popular tourist destinations in the South Coast.

11. MARINE PLANNING, MANAGEMENT, EXPLOITATION AND CONSERVATION ISSUES

strategic objectives and actions



11.1 MARINE CONSERVATION PLANNING AND MANAGEMENT

KEY CONCERNS

- There are no marine reserves or Fish Habitat Protection Areas (FHPA's) in the South Coast.
- There is limited conservation management of the marine environment in the South Coast.
- Little is known about the marine environment and human activities may be unknowingly contributing to a decline in marine biodiversity.
- The marine environment of the south coast is understudied with current knowledge based on rapid assessment survey or biased toward commercially viable species.
- Areas considered special by the community may not be considered, or can be overshadowed, by areas already identified as possible marine reserves.
- The impact on fish stocks will increase with increases in coastal development associated with population growth and availability of boat ramps and other marine related infrastructure.

EXISTING ACTIONS

- ✓ A representative system of marine reserves for Western Australia including the South Coast has been identified (MPRSWG, 1994).
- ✓ CALM have investigated some aspects of the integration of marine and terrestrial conservation reserves in the South Coast (Colman, 1998).
- ✓ The seas of the Fitzgerald Biosphere and Recherche Archipelago have been identified by the Marine Parks and Reserves Selection Working Group as areas of high priority for marine reservation in the South Coast.
- ✓ A large proportion of the Esperance community are supportive of the development of a marine park in the Recherche Archipelago.
- ✓ Albany Dive Club and Bremer Bay Dive Club are currently (2001) undertaking marine surveys with the support of Coastcare funding and expertise from University of Western Australia.
- ✓ CBUMS are conducting an on-going monitoring program of the seagrass meadows in Esperance Bay, in collaboration with the University of Western Australia and the Esperance Port Authority.
- ✓ Areas identified as important for social or economic reasons may be managed in a variety of ways under the Fisheries Resources Management Act, including Fish Habitat Protection Areas and Fishing Closure Areas.
- ✓ Albany Harbours Planning Group have developed the Albany Harbours Planning Strategy which outlines preferred zoning of the Albany Harbours.
- ✓ The Recherche Advisory Group (RAG) was formed by the Esperance community to provide a community voice for issues relating to the Recherche Archipelago.

STRATEGIC OBJECTIVE



Marine biodiversity values will be adequately protected, particularly through the implementation of a system of marine reserves and Fish Habitat Protection Areas.



ACTIONS	<p>A. Encourage the Marine Parks and Reserves Authority (MPRA) and Fisheries WA to consult with local communities to determine marine areas, large or small, that are special or important and which they feel should be conserved and protected (SCMG, CALM, FWA, WRC, Community). HIGH.</p> <p>B. Ensure marine areas considered special or important by the community, and which provide important ecological habitat, are addressed by the MPRA and/or FWA or are inclusive of marine reserves or Fish Habitat Protection Areas (SCMG, CALM, FWA, WRC, Community). MEDIUM.</p> <p>C. Explore the findings of Marine Parks and Reserves Selection Working Group (1994) and Colman (1998) with the South Coast community to advance the implementation of marine parks in the South Coast (CALM, Community). HIGH.</p> <p>D. Undertake inventories of human activities and the level to which those activities may be affecting particular marine environments and integrate findings into marine management planning (CALM, FWA, WRC, AgWA, WC, APA, EsPA, WAFIC, RecFishWest, Industry, SCMG, Community). HIGH.</p> <p>E. All marine reserves and Fish Habitat Protection Areas in the South Coast to be supported by fully developed management plans according to the requirements of Conservation and Land Management Act 1984 and Fisheries Resources Management Act 1995 (MPRA, CALM, FWA, Community). ONGOING.</p> <p>F. Continue to promote, encourage and undertake necessary marine survey work to determine areas of high biodiversity along the South Coast (LG's, CALM, FWA, Cc/Cw, Educational Institutes, SCMG, Community). ONGOING.</p> <p>G. Encourage and support research into ecological connectivity in the marine environment (CALM, FWA, WAFIC, RecFishWest, GSDC, Educational Institutes, SCMG, Community). ONGOING.</p> <p>H. Promote the ecological values of marine reserves and Fish Habitat Protection Areas as an important component in nature-based tourism opportunities for the Region (CALM, FWA, LG's, Tourism organisations, SCMG, Community). MEDIUM.</p> <p>I. Recommend necessary modifications to management practices in light of research findings (CALM, FWA, SCMG, Community). ONGOING.</p>
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11.2 SANCTUARY ZONES/NO TAKE ZONES

KEY CONCERNS

- Some sectors of the community are concerned that fishing interests may over ride their desire for sanctuary zones/no take zones to be established within future marine reserves.
- Some fishermen are concerned that the establishment of sanctuary zones/no take zones may affect their livelihoods and lifestyles.
- Sanctuary zones are often fragmented and most often less than 10% of marine parks affording limited protection to marine flora and fauna

EXISTING ACTIONS

- ✓ FWA are committed to extensive consultation to better manage coastal resources and to better understand the ever changing shifts in the view and demands of the community.
- ✓ Fishing closure area exists at the end of the Esperance Tanker Jetty.

STRATEGIC OBJECTIVE



Sanctuary Zones / No Take Zones will encompass areas of high conservation and community value in the South Coast Region.

ACTIONS	<p>A. A wide range of community interests will be represented on Advisory Groups formed for the development of marine reserves or Fish Habitat Protection Areas (MPRA, CALM, FWA, Community). ONGOING.</p> <p>B. Develop a strategy to guide the establishment of a system of Sanctuary zones/No Take zones in the South Coast that:</p> <ul style="list-style-type: none"> • have representativeness within IMCRA regions; • that adequately protect marine species and communities in the region; • that conserve and/or enhance local or regional fish stocks; and • enable the monitoring and detection of ecological change (MPRA, CALM, FWA, WAFIC, RecFishWest, SCMG, Community). HIGH. <p>C. Encourage local communities to suggest areas which could be considered for Sanctuary zones/No Take zones (MPRA, CALM, FWA, SCMG, Community). ONGOING.</p> <p>D. Sanctuary zones/No Take zones will encompass >10% of marine reserves in the South Coast (MPRA, CALM, FWA, SCMG, Community). HIGH.</p>
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11.3 CETACEAN HABITAT PROTECTION

KEY CONCERNS

- Wildlife Conservation Act, 1950 Conservation and Land Management Act, 1984 and Fisheries Resources Management Act, 1995 do not consider the protection of cetacean habitat nor do they consider impacts of conflicting human uses.
- Conflict between recreational pursuits and calving, nursing or frolicking whales may increase in future as whale numbers increase.
- The movement of small and large vessels may be deterring pregnant southern right whales from entering and resting in shallow, calm embayments in some areas of the coast.
- Southern Right Whales are listed as an endangered species with a population estimate of only 1200 individuals.
- Southern Right Whales are often stationary or slow swimming when with calf or when resting in nearshore waters making them vulnerable to interference by unmanaged whale watching activities from private boats.
- Rules governing whale watching are not well known nor are they displayed at boat launching sites, jetties or marinas.

EXISTING ACTIONS

- ✓ Southern Ocean Whale Sanctuary provides whales protection from most international whalers.
- ✓ Cetacean Action Plan (1996)
- ✓ Whales and Whale Watching in Australia (Australian National Parks and Wildlife Service, 1989)
- ✓ The Action Plan for Australian Cetaceans (Bannister et al, 1996)
- ✓ Australian National Guidelines for Cetacean Observation & Areas of Special Interest for Cetacean Observation (ANZECC, 2000)
- ✓ Aerial survey counts of Southern Right Whales are undertaken by WA Museum.
- ✓ Whale watching- rules and tips (CALM publication)
- ✓ Section 228 of Environment Protection and Biodiversity Conservation Act 1999 (Cwlth) allows the Minister for the Environment to prescribe coastal waters as whale sanctuary under certain conditions.
- ✓ Commercial whale watching operators are required to keep a log of their interactions with whales.
- ✓ Wildlife Conservation Act enables CALM to declare a 'Close Season Notice for Marine Mammals' which restricts interaction with whales, dolphins, seals and sea lions.
- ✓ FWA work to gain the best possible understanding of the relationships existing between the various animals using habitat.

STRATEGIC OBJECTIVE



Coastal waters used extensively by calving and resting whales will be protected from conflicting human uses as and where appropriate.



Humpback Whales are frequent visitors to south coast waters.
- King George Sound -

ACTIONS	<p>A. Review the ability of Western Australian legislation to protect preferred cetacean habitat (CALM, FWA, SCMG, DEP, Community). HIGH.</p> <p>B. Identify areas of the coast which are important whale calving or rest areas and seek to protect this habitat from conflicting use under appropriate Commonwealth or State legislation (Cwlth, CALM, FWA, Whale watching operators, Educational Institutes, SCMG, Community). HIGH.</p> <p>C. Investigate the potential impact of small and large vessel movement on whales in preferred calving or resting areas (Cwlth, CALM, FWA, DoT, GSDC, Whale watching operators, Educational Institutes, Community). HIGH.</p> <p>D. Review whale watching rules in regard to Southern Right Whales with calves in nearshore waters (CALM, Whale watching operators, SCMG, Community). HIGH.</p> <p>E. Study habitat requirements of all coastal dwelling cetaceans to assess current and potential impacts (Cwlth, CALM, FWA, GSDC, Whale watching operators, Educational Institutes, SCMG, Community). ONGOING</p> <p>F. Review whale interaction data collected by commercial whale watching operators and interested individuals to assess population status and behaviour of whales in localised areas of the South Coast (Cwlth, CALM, GSDC, Educational Institutes, Community). ONGOING.</p> <p>G. Continue to support and undertake aerial surveying of Southern Right whale populations in the South Coast (Cwlth, CALM, Educational Institutes, WA Museum, GSDC, Community). HIGH.</p> <p>H. Erect signage displaying whale watching rules at all boat launching sites, jetties and marinas (CALM, SCMG, Community). HIGH</p> <p>I. Ensure that land use adjacent to areas identified as being preferred whale calving, resting or frolicking sites does not: <ul style="list-style-type: none"> • encourage boat use (e.g. boat ramp construction) • cause water quality decline • increase noise levels or • interfere with natural water flow/currents or bathometric changes (CALM, DoT, FWA, LG's, SCMG, Community). ONGOING. </p> <p>J. Support independent studies into whale and dolphin ecology in the South Coast Region (Cwlth, CALM, FWA, SCMG, GSDC, LG's, Whale watching operators, Educational Institutes, Community). ONGOING</p> <p>K. Recommend necessary modifications to management practices in light of research findings (Cwlth, CALM, FWA, SCMG, Community). ONGOING.</p>
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11.4 PROTECTION OF INTERTIDAL ORGANISMS IN NATIONAL PARKS AND NATURE RESERVES

KEY CONCERNS

- FWA believes that if intertidal species are defined as fish, under the Fisheries Resources Management Act (1994), then the management of this activity is the responsibility of FWA. If fish are to be totally protected in CALM Managed Estate, this should be stated in the Resources Management Plan and appropriate regulations developed.
- Intertidal organisms are considered to be fully protected under the Wildlife Conservation Act (1950) in national parks and nature reserves which are vested to the low water mark.
- Most National Parks and Nature Reserve Management Plans do not directly consider management of the intertidal.
- There exists some uncertainty over CALM's jurisdiction in regard to the licensing and regulating for the collection of edible or commercially exploited species from the intertidal areas of national parks and nature reserves.

EXISTING ACTIONS

- ✓ Wildlife Conservation Act, Regulation 42- A person shall not take any fauna whether protected or not on any Nature Reserve.
- ✓ FWA and CALM liaise on issues related to recreational angling in National Parks and Nature Reserves.
- ✓ FWA regulate and license the collection of intertidal organisms for the entire Western Australian coast. However, within national parks and nature reserves, licenses and permits would be required from both FWA and CALM.

STRATEGIC OBJECTIVE



The protection and management of intertidal organisms within National Parks and nature reserves will be promoted.

ACTIONS	<p>A. Recommend a review of the Wildlife Conservation Act and Fisheries Resources Management Act in regard to the protection and management of intertidal marine organisms which are contained within National Parks and Nature Reserves (CALM, FWA, SCMG, Community). MEDIUM.</p> <p>B. Encourage and support the protection and management of intertidal organisms within national parks and nature reserves (SCMG, CALM, FWA, Community). ONGOING.</p> <p>C. Encourage and support research into the biological composition of intertidal areas throughout the region (CALM, FWA, GSDC, Educational Institutes, SCMG, Community). ONGOING.</p> <p>D. Undertake a study to determine the impacts on biodiversity and ecological processes from the fishing/collection of intertidal organisms and river borne nutrients and sediments within National Parks and Nature Reserves (CALM, FWA, GSDC, Educational Institutes, SCMG, Community). MEDIUM.</p> <p>E. Recommend necessary modifications to management practices in light of research findings (CALM, FWA, SCMG, Community). ONGOING.</p>
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11.5 MARINE AQUARIUM SPECIES COLLECTION

KEY CONCERNS

- In many cases, permits are issued for the collection of marine life for aquarium display without a full understanding of the impacts of its removal and mortality in captivity.
- Entire populations of seadragons have been removed by licensed collectors.
- The community is sceptical that licensed aquarium collectors keep accurate records of their collections or appropriately monitor the sites they collect from.

EXISTING ACTIONS

- ✓ Permits and licenses for the collection of marine organisms, including seaweeds and seagrass, are regulated by FWA.
- ✓ FWA requires collectors to keep records of their activities.
- ✓ FWA have developed a code of conduct with the Marine Aquarium Fishing Industry.
- ✓ Issues related to the Marine Aquarium Fishery are being dealt with by Environment Australia for schedule 4 accreditation. This assessment has a high level of focus on seahorse species.
- ✓ Management of the Marine Aquarium Fish Fishery (FWA, 1994)

STRATEGIC OBJECTIVE



The marine aquarium collection industry will be guided by appropriate research to determine impacts and mortality of all collected species

ACTIONS	
	A. Undertake an inventory of species collected and determine the level of research required to appropriately support and guide the industry (FWA, CALM, SCMG, Educational Institutes, Community). HIGH.
	B. Encourage and support research into the impacts of collection by marine aquarium collectors (FWA, CALM, SCMG, Educational Institutes, Community). HIGH.
	C. Undertake community consultation in relevant areas to access local knowledge and concern regarding aquarium species collection (FWA, SCMG, Community). HIGH.
	D. Prohibit the removal of species which are known to have a high mortality rate in captivity (FWA, Community). HIGH.
	E. Do not allow collection of species from areas which support a nature-based tourism operation, in particular passive dive tours (FWA, CALM, SCMG, Community). ONGOING.
	F. Develop species specific management plans for the aquarium collection industry (FWA, SCMG, Community). HIGH.
	G. Recommend necessary modifications to management practices in light of research findings (FWA, SCMG, Community). ONGOING.



11.6 LARGE VESSEL ANCHORING

KEY CONCERNS

- No information is currently available about the impacts on marine life from vessels anchoring at Esperance Bay or King George Sound.

EXISTING ACTIONS

- ✓ Vessels are anchored in areas which suit their size, draft and steerage with the largest vessels being anchored in deeper water (~30m) and smaller vessels in shallower water (~12m) in the Port of Albany.
- ✓ Port of Esperance has a designated anchorage area with a depth of at least 25m. The harbourmaster provides incoming vessels with preferred coordinates for anchoring.
- ✓ Vessels 'walk' their anchor to limit damage to the benthos and to avoid anchor chain jamming.

STRATEGIC OBJECTIVE



Large vessel anchoring will be managed to reduce the impacts on benthic and pelagic marine communities.

ACTIONS	<p>A. Determine degree of benthic damage caused by large vessel anchoring in King George Sound and Esperance Bay (APA, EsPA, DoT, DEP, GSDC, Educational Institutes, Community). MEDIUM.</p> <p>B. Continue to promote methods which reduce damage to the benthos from anchor chain drag (APA, EsPA, DoT). ONGOING</p>
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11.7 SEA AND LAND-BASED AQUACULTURE

KEY CONCERNS

- Sea-based aquaculture, ranching in particular, may cause changes in the natural ecosystem and as such raises biological, economic and social issues.
- There are no clear guidelines or policy in place to guide the development of land-based aquaculture in Western Australia.
- There is currently no regional planning in place to guide the development of the marine aquaculture industry resulting in an ad hoc approach by proponents.
- Aquaculture is a growth industry in the South Coast.

EXISTING ACTIONS

- ✓ WRC/AWMA have guidelines which relate to aquaculture in Albany Harbours. These are supported by Albany Port Authority, FWA, DoT, CALM and LG's.
- ✓ Albany Harbours Planning Strategy has designated areas for aquaculture with provisions governing type and management.
- ✓ WIMA, Shire of Denmark and Fisheries WA have endorsed Aquaculture Development Plan for Wilson Inlet (2000)
- ✓ Sea-based aquaculture maybe subject to environmental assessment by the EPA/DEP with the approval process requiring consultation with Local Governments and community.
- ✓ Applications for aquaculture licenses for large-scale land-based sites are referred to relevant decision-making authorities and relevant agencies which may include, but not be limited to:
 - DoLA
 - MfP
 - WRC
 - LG
 - CALM
 - Department of Commerce and Trade
- ✓ Consultation with representative community and industry groups is also undertaken where relevant, including but not limited to :
 - WAFIC
 - ACWA
 - Recreational Fishing Advisory Committee
 - Conservation Council of WA
- ✓ Research into the impact mussel farming may have on seagrass is being undertaken in King George Sound, sponsored by Fisheries WA. Research will be completed in 2002.
- ✓ Applications for licenses for aquaculture in coastal waters of Western Australia, are assessed in accordance with the consultation process outlined in Ministerial Policy Guideline No. 8 'Assessment of applications for authorisations for Aquaculture and Pearling in Coastal Waters of Western Australia'.

STRATEGIC OBJECTIVE



Aquaculture, both sea and land-based, will develop as a socially, financially and environmentally sustainable industry which is based on best practice methods.

ACTIONS	<p>A. Ensure the protection of environmental values has highest priority in development of all aquaculture in the South Coast (SCMG, FWA, ACoWA, CALM, WRC, LG's, Community). ONGOING.</p> <p>B. Develop regionally accepted land-based marine aquaculture development guidelines to assist local government in assessing land-based marine aquaculture developments (SCMG, LG's, ACoWA, FWA, CALM, AgWA, DoLA, Community). HIGH.</p> <p>C. Undertake the development of a Regional Marine Aquaculture Development Strategy which identifies potential sites, opportunities and constraints associated with aquaculture development, and outlines environmental management standards for sustainable development of the industry in the south coast. (SCMG, ACoWA, FWA, WRC, CALM, DoT, LG's, Community). HIGH.</p> <p>D. Undertake informative and extensive community consultation during the development of a Regional Marine Aquaculture Development Strategy (SCMG, FWA, ACoWA, WRC, CALM, LG's, Community). HIGH.</p> <p>E. Develop land-based aquaculture proposals based on the guidance provided through the pending Statement of Coastal Planning Policy (WAPC, in prep.) and with best practice coastal management in mind (FWA, SCMG, MfP, ACoWA, DEP, WRC, CALM, AgWA, LG's, Community). ONGOING.</p> <p>F. Ensure extensive community consultation is undertaken by proponents so that aquaculture development does not conflict with established stakeholders or tourism uses on the coast or in the seas (LG's, FWA, WAPC, MfP, DoT, ACoWA, DEP, WRC, CALM, SCMG, Community). ONGOING.</p> <p>G. Provide extensive technical support to Local Government who may not have adequate resources or expertise to deal with land-based aquaculture proposals at the planning approval stage (FWA, MfP, ACoWA, DEP, WRC, CALM, AgWA, DoT, SCMG, Community). ONGOING.</p>
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Rock fishing is a popular pass-time, particularly during salmon season. - Boat Harbour - (SoDe).

11.8 ENVIRONMENTAL IMPACTS OF COMMERCIAL FISHING OPERATIONS

KEY CONCERNS

- Knowledge of the marine environment is biased toward commercially viable species and therefore little is known about the impact of fishing on other species.
- Trawling activities, licensed by the Commonwealth, are suspected of impacting on local recreational and commercial fishing yields and are destroying benthic habitat which we know nothing about.
- Pelicans, seals, sea lions, diving seabirds, whales and dolphins are sometimes inadvertently caught during commercial fishing activities or become entangled in discarded fishing gear.

EXISTING ACTIONS

- ✓ FWA is currently developing policies requiring that all fisheries be managed on an ecologically sustainable basis. This includes the management of all impacts on fishing, including ecological impacts. Fisheries management will be adjusted over the next three years to ensure that this occurs.
- ✓ Fishing interactions with protected species are being dealt with under the Commonwealth Environment Protection and Biodiversity Conservation Act (1999)

STRATEGIC OBJECTIVE



Fisheries managers will advocate a holistic and sustainable approach to fisheries management in both State and Commonwealth waters.

ACTIONS	<p>A. Encourage and support monitoring of fishing yields and fish stocks in frequently fished areas (Cwlth, FWA, Educational Institutes, Community). ONGOING</p> <p>B. Encourage and support research into the impact of trawling activities on benthic communities and local commercial and recreational fishing yields (Cwlth, FWA, GSDC, Educational Institutes, SCMG, Community). HIGH</p> <p>C. Encourage research into methods to lessen the potential of pelicans, seals, sea lions, diving seabirds, dolphins and any other vulnerable species being inadvertently caught by commercial fishermen (Commonwealth, FWA, CALM, GSDC, Educational Institutes, SCMG, Community). HIGH</p> <p>D. Determine/monitor the number of pelicans, seals, sea lions, diving seabirds, whales and dolphins inadvertently caught by commercial fishermen or which become entangled in discarded fishing gear on the South Coast (Commonwealth, FWA, CALM, WAFIC, GSDC, Educational Institutes, SCMG, Community). HIGH/ONGOING</p> <p>E. Recommend necessary modifications to management practices in light of research findings (Cwlth, FWA, SCMG, Community). ONGOING</p>
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11.9 IMPORT OF FISH FEED/BAIT

KEY CONCERNS

- There is concern that imported fish feed or bait has contributed to the introduction of marine pathogens which has resulted in the decline of fishing yield or the closure of fisheries e.g. pilchards.

EXISTING ACTIONS

- ✓ Importers seeking to import fish products for use as aquaculture feed or for commercial or recreational bait must make a scientific submission to Australian Quarantine Inspection Service (AQIS) supporting the granting of an import permit.
- ✓ Depending on end use AQIS may require that scientific submissions be based on whole-of-industry commitment to quarantine risk management. For more information see www.aqis.gov.au/icon/asp/ex_querycontent.asp
- ✓ FWA have a long standing interest in the issue of risk associated with bait import and is working closely with AQIS on this issue.

STRATEGIC OBJECTIVE



The risk of introduction of pathogens through the importation of fish feed/bait will be minimal.

ACTIONS	<p>A. Continue to scrutinise imported fish feed/bait to diminish the risk of introduced diseases to wild stocks (AQIS). ONGOING</p> <p>B. Support research into fish pathogens which may affect wild stocks (AQIS, Educational Institutes, Community). ONGOING</p>
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The South Coast marine environment is diverse in nature. Granite and limestone form many reefs and bombies along the coast - Hillier Bay - (SoDe)

11.10 INTRODUCED MARINE ORGANISMS

KEY CONCERNS

- Foreign organisms can be introduced to the local marine environment via ballast water or from hull transport.
- No hull inspections are undertaken in ports.
- So little is known about the indigenous composition of marine life in the south coast that if a foreign species did colonise it may not be recognised as an exotic or may impact on the environment before it was noticed.
- No regular monitoring of the benthos around ports is undertaken.
- Ballast water treatment is prohibitive because of cost, enormous quantities of water and disposal problems.

EXISTING ACTIONS

- ✓ The National Introduced Marine Pests Coordination Group (NIMPCG), has been established to oversee the coordinated development of nationally consistent arrangements and measures to prevent and manage marine pest incursions. The NIMPCG is advised by the Australian Marine Pests Advisory Council (AIMPAC).
- ✓ A national decision-making system will be used to assess all ships coming into Australia to determine the risks associated with their ballast water from July 1, 2001.
- ✓ Port Authorities and Australian Quarantine Inspection Service (AQIS) have a policy which requires ships, containing contaminated or non-exchanged ballast water from a 'dirty' port, to take their water at least 12 miles offshore for exchange.
- ✓ Australian Ballast Water Management Strategy (AQIS, 1995)
- ✓ AQIS requires all international vessels to treat their ballast water. Treatment is most often by way of deep water (ie. mid ocean) exchange before entry to Australian ports.
- ✓ AQIS carries out random or targeted audits of vessels to ensure that ballast exchange has taken place (The vessels have electrical generators which show a marked increase in consumption while ballast pumps are operating).
- ✓ AQIS take ballast water samples from all vessels originating (last porting) from countries or continents where cholera is endemic (e.g. South America) and random samples from other vessels.
- ✓ Vessels are requested to exchange ballast water in the tropics before entering temperate waters, although this is not compulsory.
- ✓ AQIS require vessels to submit a ballast water exchange report containing the location of uptake and discharge and the quantity. This is then kept in a data base for use if necessary.
- ✓ FWA provides information on 12 introduced organisms that may affect the fishing or aquaculture industry.
- ✓ FWA currently has an Introduced Marine Species Program active to encourage the community to report information and/or sightings.
- ✓ Introduced species survey was undertaken by APA and CSIRO Centre for Research on Introduced Marine Pests in 1996.
- ✓ A study of the Esperance Port to ascertain the presence or otherwise of introduced organisms was undertaken in 1995. A further study will be undertaken through CSIRO Centre for Research on Introduced Marine Pests Program in due course.
- ✓ The Esperance Port Authority undertook a benthic study in 1999 and has recently commissioned a follow up study for 2001.

STRATEGIC OBJECTIVE



Protection measures will be continued and updated to limit the potential of introduced marine organisms becoming established in South Coast waters.

ACTIONS	
	A. Support base line studies into the composition of benthic and pelagic marine life around and on Port infrastructure (APA, EsPA, DoT, WRC, GSDC, Educational Institutes, SCMG, Community). HIGH
	B. Develop a monitoring program which ensures consistent investigation of benthic and pelagic marine life around and on Port infrastructure on a regular basis (APA, EsPA, DoT, WRC, GSDC, Educational Institutes, Community). HIGH
	C. Inspect composition of organisms attached to visiting vessels, particularly international vessels which have travelled from areas known to be sources of introductions in temperate Australian waters (AQIS, APA, EsPA, DoT, FWA, WRC, GSDC, Educational Institutes, SCMG, Community). HIGH

11.11 TBT AND OTHER MARINE POLLUTANTS

KEY CONCERNS

- Tributyltin, aka TBT, a toxic compound used in antifouling paints can accumulate in sediment and benthic feeding fauna around harbours, wharves, jetties and marinas.
- TBT is known to accumulate in the fatty tissue of mammals ie. whales, dolphins, seals and humans, and has caused sterility in some molluscs.
- Without antifouling paint on ships hulls, marine organisms would accumulate at a greater rate, possibly resulting in increased transport of foreign organisms, slowing of ships speed and increase of transport costs.
- Our knowledge of contaminants and pollutants (e.g. organochlorins, heavy metals, oils, bacteria and TBT's) in marine waters and sediment around harbours, wharves, jetties and marinas is limited in the South Coast and is generally based on localised and ad hoc investigation.
- Slipways in the South Coast, generally have no containment or treatment facilities to limit contaminants entering the marine environment.
- Pollutants, such as sewage, can travel to the sea via waterways or groundwater.

EXISTING ACTIONS

- ✓TBT is banned for use on vessels under 25 metres.
- ✓Alternative antifouling paints are being developed and trialed throughout the world.
- ✓The International Maritime Organisation agreed in November 1998 to ban the use of TBT in anti-foulants by 2003, with a 5 year period of phasing out.
- ✓ANZECC Strategy to Protect the Marine Environment – Code of Practice for Antifouling and in-water Hull Cleaning and Maintenance (ANZECC, Australian Maritime Safety Authority, Maritime Safety Authority of New Zealand, 1997).
- ✓WRC monitor many waterways for pollutants.

STRATEGIC OBJECTIVE



Marine pollutants and contaminants will be well researched and monitored in South Coast waters, particularly around harbours, wharves, jetties and marinas.

ACTIONS	
	A. Undertake base line studies on the level of marine pollutants and contaminants in marine sediment around harbours, wharves, jetties and marinas (DEP, AWMA, APA, EsPA, DoT, WRC, GSDC, Educational Institutes, Community). HIGH
	B. Develop a monitoring program to consistently investigate the level of marine pollutants and contaminants in marine sediment around harbours, wharves, jetties and marinas (DEP, AWMA, APA, EsPA, WRC, GSDC, Educational Institutes, Community). HIGH
	C. Raise community awareness of the dangers associated with eating benthic feeding organisms caught or collected around harbours, wharves, jetties and marinas (FWA, DEP, APA, EsPA, DoT, Educational Institutes, Community). MEDIUM
	D. Ensure all new marinas and slipways incorporate antifouling containment and disposal (or treatment) facilities to prevent discharge of contaminants to the sea (DoT, EPA/DEP, WRC, APA, EsPA, LG's, SCMG, Community). HIGH/ONGOING
	E. Ensure landfill used in land reclamation at the coast, or near water bodies or waterways, is free from contaminants (EPA, DEP, WRC, LG's, Community). ONGOING
	F. Continue to develop areas away from the coast which can receive and biologically treat wastewater (LG's, WC, WRC, DEP, Community). HIGH
	G. Locate refuse sites a substantial distance (agreed to by all relevant bodies) from the coast, water bodies and waterways (LG's, WC, WRC, DEP, Community). MEDIUM
	H. Encourage the use of four stroke boat engines for recreational boating which reduce the 'dumping' of hydrocarbons into the sea (DEP, WRC, FWA, DoT, Angling Clubs, Yacht Clubs, Power Boat Clubs, Community). ONGOING

11.12 OIL SPILLS

KEY CONCERNS

- Ship wrecks may result in massive oil spills which affect marine mammals, seabirds and intertidal organisms.
- Oil can be spilled into the sea at bunkering facilities.

EXISTING ACTIONS

- ✓ National Plan to combat pollution of the sea by oil and other noxious and hazardous substances – Australian Maritime Safety Authority. This is an industry funded plan (via a levy placed on all vessels visiting Australian ports) that provides training, equipment, materials and support to deal with oil spills. (www.amsa.gov.au/me/natplan/contplan/index.htm)
- ✓ The State Committee for Combating Marine Oil Pollution, consists of all relevant government agencies which have management responsibilities in the Marine Environment.
- ✓ Oil Spill Contingency Plan – Port of Albany and Port of Esperance
- ✓ Albany and Esperance Ports have oil pollution equipment and materials on site and are able to call on the assistance and support from the National Plan in the event of a spill.
- ✓ Albany Port Authority provides training in the use of oil spill equipment.
- ✓ CALM, DoT and Port Authorities work together to protect sea life threatened by oil spills.
- ✓ DoT have training and equipment for oils spills which occur outside port waters.
- ✓ FWA staff frequent many parts of the coast and can assist with equipment and knowledge when required.

STRATEGIC OBJECTIVE



Oil spill contingency plans, which consider protection and assistance for flora and fauna, will be in place for all inshore and port waters and the open sea.

ACTIONS	<p>A. Continue to provide up to date information and training to groups and individuals who have a role to play in implementation of oil spill contingency plans (AMSA, DoT, APA, EsPA, CALM, FWA). ONGOING</p> <p>B. Update Oil Spill Contingency Plans and review when new technology or methods become available (AMSA, DoT, APA, EsPA, CALM, FWA). ONGOING</p> <p>C. Develop methods which reduce the risk of oil spill at bunkering facilities (AMSA, APA, EsPA, DoT). ONGOING</p>
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11.13 RUBBISH DUMPING AT SEA

KEY CONCERNS

- Dumping of refuse from foreign and local fishing vessels continues to occur.
- Blue bait bands, plastic bags, rope, light bulbs, bottles, fishing lines, fishing tackle and other floating refuse are dangerous to marine life which may swallow them or get caught on them resulting in drowning, asphyxiation, intestinal blockage or a mortal wound.
- Rope and plastic material may get caught in propeller shafts or block water intakes causing major damage, expensive repairs and loss of income while vessels are repaired (www.amsa.gov.au).

EXISTING ACTIONS

- ✓ Dumping of plastics at sea is prohibited by law.
- ✓ All vessels 12m or more are required to display placards which provide information about garbage laws.
- ✓ WAFIC have developed a Code of Practice for rubbish disposal at sea by commercial fishermen operating in Western Australian waters (to 3nm).
- ✓ Under international law, facilities in ports for the disposal of waste from vessels are required. Facilities must be appropriate for the amount of boating in the area.
- ✓ International Convention for the Prevention of Pollution from Ships (MARPOL Convention) suggest internationally recognised guidelines on rubbish disposal ie. no plastics thrown into the sea, no garbage discharged within 12 nautical miles from the nearest land.
- ✓ MARPOL requires vessels over 400 tons to develop waste management plans which contain procedures for collecting, storing, processing and disposal of garbage.

STRATEGIC OBJECTIVE

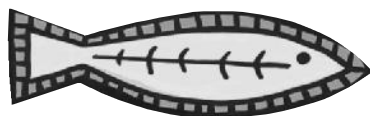


International, national, state and local mariners will be made more aware of the potential impacts of rubbish dumping at sea on marine life and coastal aesthetics.

ACTIONS	<p>A. Continue to raise awareness of professional and amateur mariners about the impacts of rubbish dumping on marine life and coastal aesthetics and increase their knowledge and understanding of relevant laws regarding rubbish disposal at sea (AMSA, DoT, APA, EsPA, CALM, FWA, SCMG, Community). ONGOING</p> <p>B. Ensure adequately sized rubbish receptacles are located at all ports, wharves, jetties, marinas and boat ramps to allow all boat/vessel users to dispose of rubbish quickly and easily upon berthing (APA, EsPA, DoT, CALM, FWA, LG's, Community). HIGH/ONGOING</p>
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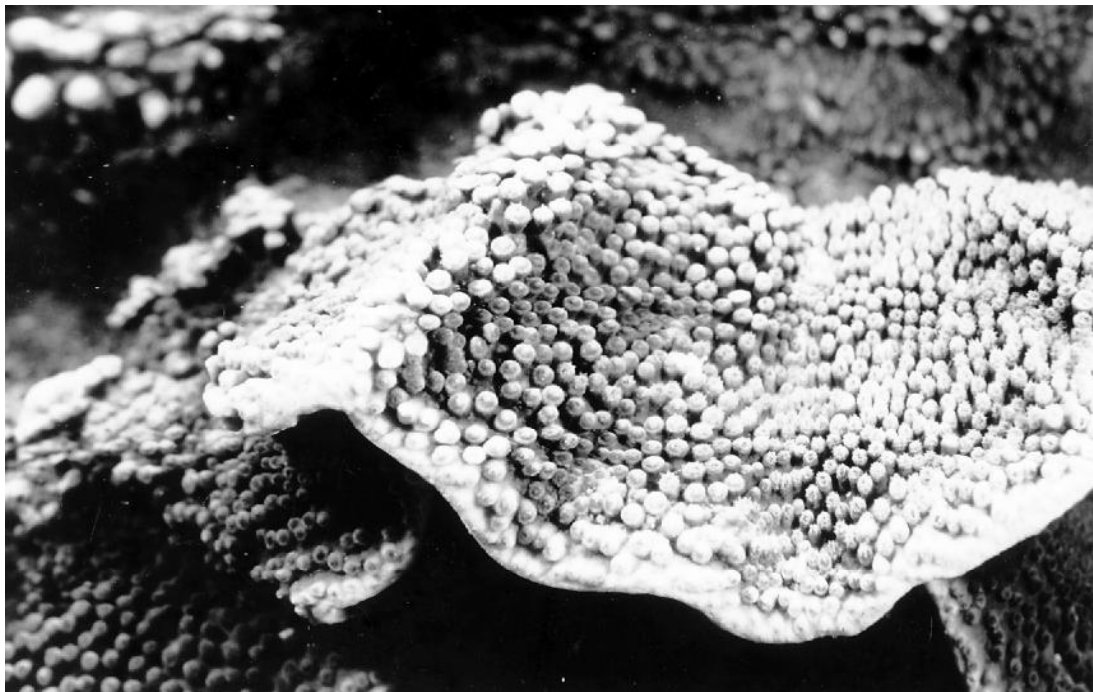


A Hopetoun resident collects rubbish from a 1km section of beach in a voluntary capacity. This load was accumulated over a few days and consists mostly of fishing materials. - Hopetoun - (SoR).

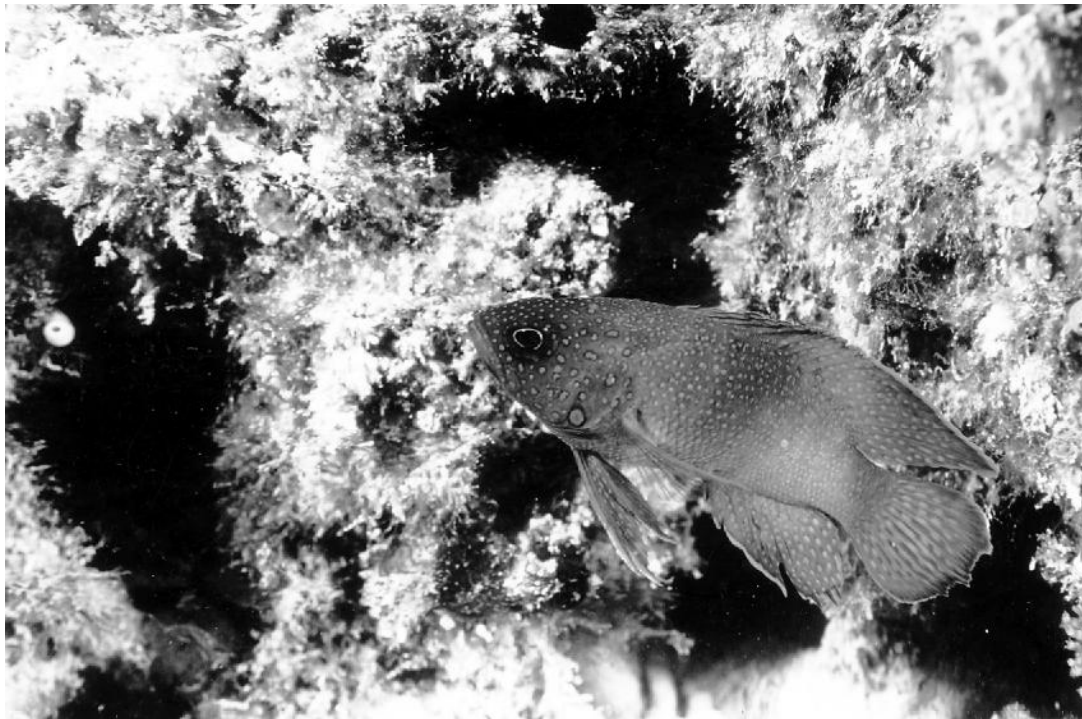




Yellow Nosed Albatross scavenge by-catch thrown overboard by fishermen, and are vulnerable to being tangled in fishing gear.



Turbinaria plate coral is common in some areas of the south coast. It provides habitat for many territorial species of fish.



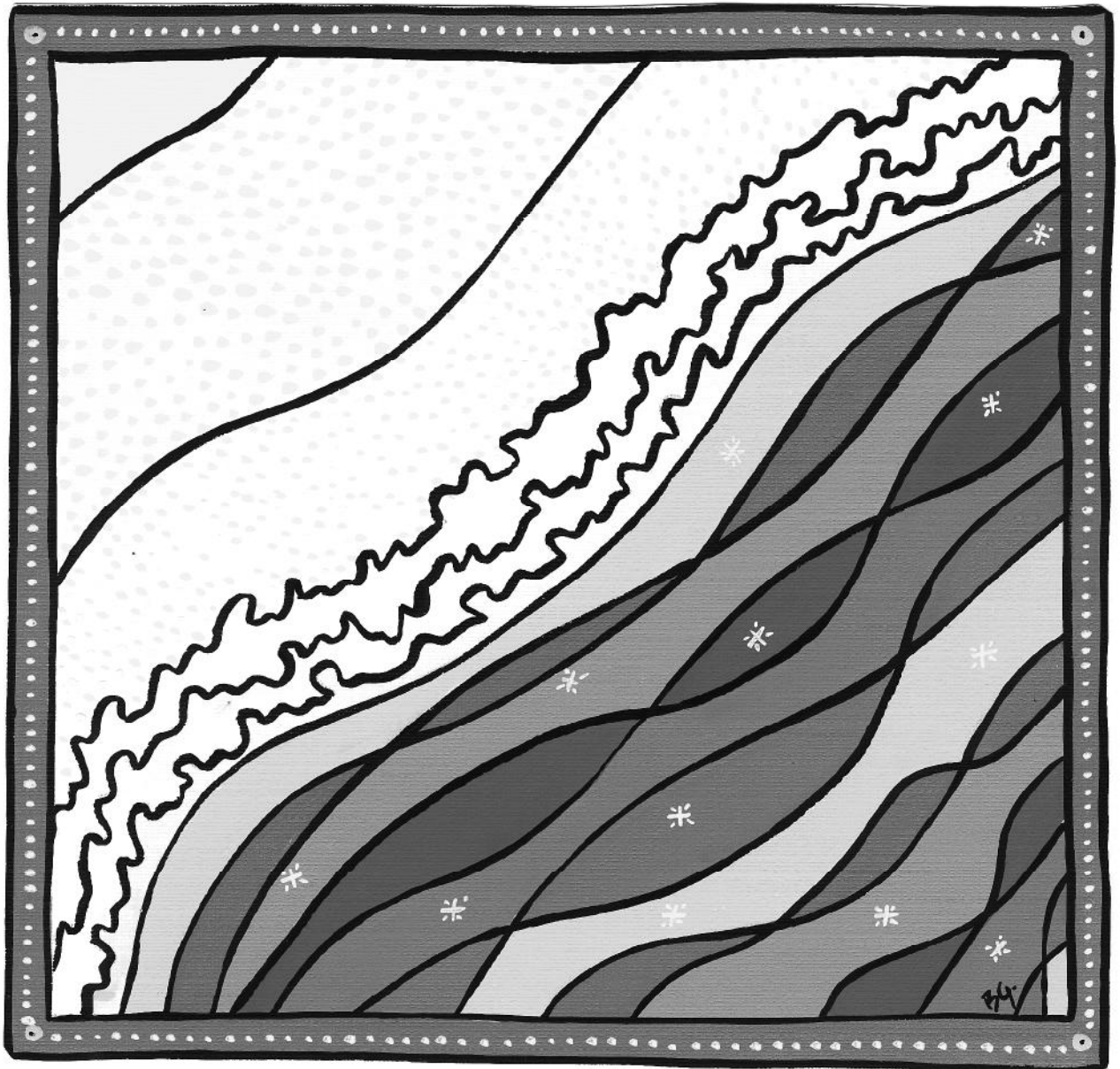
The spectacular Blue Devil Fish is vulnerable to over collection by marine aquarium collectors because it is often not afraid when approached and will not leave its cave or ledge because it is a territorial fish.



School children don't often get the opportunity to look at animals that live under the sea. A touch pool helps them learn about the marine environment.

12. COASTAL WETLANDS AND WATER BODIES PLANNING, MANAGEMENT AND CONSERVATION ISSUES

strategic objectives and actions



12.1 COASTAL WETLAND PROTECTION

KEY CONCERNS

- Coastal wetlands are being degraded through infilling, land clearing, wild fire, stormwater drainage, nutrient run-off, herbicide and pesticide run-off, rising salinity levels, rising groundwater levels and increased run-off.
- Freshwater wetlands provide economic opportunities for landowners if they can be preserved.
- Many wetlands and their associated flora and fauna remain understudied with their ecological links not fully understood.
- The majority of wetlands have no management plans guiding their protection.
- Many of the Region's wetlands exist in coastal locations where development and recreational pressures are greatest.
- Many wetlands are influenced by catchment issues that are managed in isolation (ie. separate) from the wetlands.

EXISTING ACTIONS

- ✓ South Coast Wetland Project (WRC).
- ✓ Lake Warden system is a listed Ramsar wetland and Lake Gore Coastal Reserve has recently been formally listed as a Ramsar Wetland.
- ✓ WRC south coast region and Green Skills coordinate wetland management program funded by WRC and NHT. The program focuses on wetland suites identified in regional studies as being high priority and regionally significant.
- ✓ Wetland management is incorporated into catchment planning activities, with seed funding for fencing, revegetation and groundwater monitoring.
- ✓ 27 high priority wetlands are monitored twice yearly by WRC and communities as part of a regional wetland monitoring program, to provide baseline data about wetland health and in particular to help understand the links between macro-invertebrate populations and water quality parameters.
- ✓ Wetland workshops are being run twice yearly by WRC and communities to promote the values of local wetlands and help raise awareness of the threats the wetlands face.
- ✓ Information leaflets are produced locally to continue awareness raising by providing information specifically about south coast region wetlands.
- ✓ Land development proposals that affect wetlands are being referred through the WRC office to ensure protection of significant wetland suites and minimise the impact of proposed development.
- ✓ Esperance Lakes Nature Reserve Management Plan (CALM, 1992-2002)
- ✓ Many wetlands are protected within CALM managed land, eg. The lakes within Two Peoples Bay Nature Reserve.
- ✓ Many of the regions coastal wetlands are recognised as being of National significance.

STRATEGIC OBJECTIVE



Coastal wetlands in the South Coast will be managed to maintain natural values and ecological processes and linkages.

ACTIONS	
	A. Encourage the holistic study and monitoring of coastal wetlands in the South Coast (WRC, AgWA, CALM, LG's, SCMG, Community). ONGOING
	B. Develop management plans for priority coastal wetlands which are impacted by human activities including catchment issues (WRC, AgWA, CALM, LG's, SCMG, Community). HIGH
	C. Assist private landholders with wetlands on their property to manage or use those wetlands sustainably (WRC, AgWA, CALM, LG's, Community). ONGOING
	D. Raise community awareness of the impacts affecting coastal wetlands (WRC, AgWA, CALM, LG's, SCMG, Community). ONGOING
	E. Promote the ecological values of wetlands as part of a nature-based tourism opportunity (WRC, CALM, LG's, Tourism organisations, SCMG, Community). ONGOING
	F. Undertake an inventory of all coastal wetlands to identify threats which help focus management activities e.g. weed invasion, rubbish dumping, stock intrusion, feral animals (WRC, CALM, DoLA, LG's, Landowners, Community). HIGH
	G. Rehabilitate degraded wetlands as appropriate (WRC, AgWA, CALM, DoLA, LG's, Landowners, Community). MEDIUM
	H. Incorporate wetland protection into Town Planning Scheme amendments and relevant planning policies (WRC, CALM, DoLA, LG's, Landowners, Community). HIGH
	I. Drainage practices and other agricultural activities should be undertaken with the protection of the ecological values of wetlands in mind (LG's, WRC, AgWA, DEP, DoLA, Landowners, Community). ONGOING
	J. Develop engineering and catchment management options that will reduce the immediate threats of inundation for many wetlands where appropriate and sustainable (WRC, AgWA, CALM, LG's, Educational Institutes, Community). ONGOING
	K. Recommend necessary modifications to management practices in light of research findings (CALM, WRC, AgWA, DoLA, LG's, Community). ONGOING



Off-road vehicle tracks which run alongside Wellstead Estuary are frequently flooded and cause degradation of the natural estuary bank and its vegetation.
- Bremer Bay - (SoJ).

12.2 ESTUARY/INLET SAND BAR OPENINGS

KEY CONCERNS

- The opening of estuary sand bars has become a contentious issue in the south coast with some sand bars being breached without appropriate consideration of environmental variables.
- No guidelines or protocol is in place for the management of most estuaries and there is confusion over who is responsible or has jurisdiction in undertaking decision making concerning most bar openings.

EXISTING ACTIONS

✓Wilson Inlet Sandbar Policy (WIMA/WRC, WC, SoDe, 2000).

STRATEGIC OBJECTIVE



Clear protocols will guide the community and land managers in regard to artificial estuary/inlet openings.

ACTIONS	<p>A. Source digital aerial photography for the South Coast and undertake analysis and mapping of bar openings for all estuaries/inlets to improve the understanding of sand movement, water flow and to assist in developing management protocols (WRC, CALM, DoLA, LG's, Community). HIGH</p> <p>B. Identify priority estuaries and develop policies and protocols based on that prioritisation to guide management of artificial sand-bar openings (WRC, CALM, DoLA, LG's, FWA, Community). HIGH</p> <p>C. Promote a non-interference approach to sand bar management except under exceptional circumstances outlined in established protocols (WRC, CALM, DoLA, LG's, FWA, Community). ONGOING</p> <p>D. Ensure infrastructure (roads, houses, boat ramps etc.) are not located within areas likely to be flooded by estuaries or which restrict natural or artificial sand bar opening opportunities (LG's, WAPC, MfP, WRC, DoT, Community). ONGOING</p>
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12.3 PROTECTION OF WATER BODIES IN CALM MANAGED ESTATE

KEY CONCERNS

- Some water bodies (estuaries, inlets) lying within the boundaries of coastal National Parks and Nature Reserves are excluded from the surrounding conservation estate and are afforded no direct protection unless gazetted as marine parks or marine nature reserves.

EXISTING ACTIONS

✓CALM are referred to when water bodies enclaved in CALM managed estate are being discussed.

STRATEGIC OBJECTIVE



Coastal water bodies will be protected through the development of inter-agency memorandum of understandings, with those on CALM managed estate afforded greater protection due to their close association with the terrestrial values inherent to conservation estate.

ACTIONS	<p>A. Review the inclusion of coastal water bodies as integral parts of National Parks and Nature Reserves (ConComWA, CALM, WRC, FWA, Community). HIGH</p> <p>B. Develop MOU's which outline the responsibilities of relevant agencies in dealing with particular issues relating to the management of coastal water bodies according to management pressures (WRC, CALM, FWA, DoLA, DEP, WC, LG's, AgWA). HIGH</p> <p>C. Identify and assist in the management of catchment issues which may threaten coastal water bodies within CALM managed estate (CALM, WRC, AgWA, DEP, Community). ONGOING</p>
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12.4 CULTURAL EUTROPHICATION

KEY CONCERNS

- Increases in nutrient levels to water bodies and the sea may cause changes to natural ecological processes because south coast waters are generally oligotrophic (nutrient poor).
- People in urban areas and on farms, generally, do not realise the link between over fertilisation of their gardens and farms and eutrophication of wetlands, water bodies, waterways and the sea.

EXISTING ACTIONS

- ✓ Draft – Statewide Policy No. 4 Waterways WA (WRC, 2000)
- ✓ Ribbons of Blue/Waterwatch program
- ✓ State Water Quality Management Strategy (GoWA, 2000)
- ✓ Albany Harbours Catchment Audit (WRC).
- ✓ Pollution (nutrient) Control and Munster Hill Catchment Project (WRC).
- ✓ Wilson Inlet estuarine and catchment water quality audit (WRC).
- ✓ Wilson Inlet Catchment Action Plan (in prep.) (WRC).
- ✓ Torbay Waterways Water Quality Assessment Project (WRC)
- ✓ Eastern Hinterland Catchment and Estuarine Monitoring Project (WRC).
- ✓ Shire of Denmark provide fencing grants.
- ✓ River Surveys and Action Plans are developed by Water & Rivers Commission
- ✓ Denmark Environment Centre has been involved in surveying, fencing and revegetating areas of Denmark and Hay Rivers, Little River and Scotsdale Brook for the past 14 years.
- ✓ Wilson Inlet Catchment Committee undertake planning, management and implementation of recommendations to reduce nutrient levels in some Denmark waterways.
- ✓ Denmark LCDC undertake some management of lower Wilson Inlet catchment issues.
- ✓ Green Skills undertake surveying, fencing and revegetation of waterways.

STRATEGIC OBJECTIVE



Waterways which drain to the sea will be managed to reduce and limit nutrient loading which affects natural ecological processes.

ACTIONS	
	<p>A. Increase the public's understanding and awareness of the impacts associated with nutrient increases in waterways and the sea from everyday garden practices and farming practices (WRC, AgWA, CALM, FWA, LG's, SCMG, Community). ONGOING</p> <p>B. Encourage the public to access information and data about the health of waterways and the sea in their areas (WRC, AgWA, FWA, CALM, Educational Institutes, Community). LOW</p> <p>C. Continue to monitor the nutrient load of waterways, particularly waters in close proximity to town sites and urban development (WRC, LG's, Community). MEDIUM/ONGOING</p> <p>D. Extend monitoring for nutrient loads to nearshore marine waters, particularly waters in close proximity to town sites, urban development and eutrophic waterways (WRC, LG's, Community). MEDIUM/ONGOING</p> <p>E. Encourage holistic research into how waterways function and interact with the sea (WRC, AgWA, CALM, FWA, GSDC, Educational Institutes, SCMG, Community). ONGOING</p> <p>F. Work with all relevant agencies and community to develop restorative and preventative actions to improve waterway health (WRC, AgWA, CALM, FWA, LG's, Educational Institutes, Community). HIGH/ONGOING</p> <p>G. Amend inappropriate coastal drainage practices to minimise erosion and transportation of sediments and nutrients into coastal waters (LG's, WC, WRC, Community). HIGH</p> <p>H. Develop strategies to minimise industrial discharge to marine waters (WRC, DEP, MfP, LG's, Community). HIGH</p> <p>I. Ensure point source nutrient discharge eg. piggeries, does not occur within close proximity to waterways or the sea (LG's, WAPC, MfP, WRC, DEP, WC, Community). HIGH/ONGOING</p> <p>J. Recommend necessary modifications to management practices in light of research findings (CALM, WRC, AgWA, LG's, Community). ONGOING</p>

12.5 STORMWATER DRAINAGE

KEY CONCERNS

- The sea, waterways and wetlands are used as receiving basins for urban stormwater run off which often contains hydrocarbons, heavy metals and chemical compounds.
- Stormwater drainage over beaches causes scouring of beach and increased sedimentation of near shore waters.
- Stormwater drainage can cause slope or bank collapse in estuaries and waterways.

EXISTING ACTIONS

- ✓ Urban stormwater demonstration sites (WRC, Shire of Plantagenet, Shire of Denmark, funded by NHT Coast and Clean Seas Program).
- ✓ Urban Stormwater Best Practice Manual (WRC, 1999)
- ✓ CSBP Albany treat stormwater.

STRATEGIC OBJECTIVE



Stormwater management will ensure that pollutants do not enter seas or wetlands.

ACTIONS	
	A. Develop and implement stormwater management strategies (LG's, WRC, WC, MRD, FWA, Community). HIGH
	B. Direct disposal of stormwater into marine waters and waterways should not occur. The use of filtration/sedimentation basins should be used to filter pollutants before discharge (LG's, WRC, WC, Community). HIGH/ONGOING
	C. Stormwater disposal infrastructure should be based on the WRC best practice manual for stormwater treatment (LG's, WRC, WC, Community). ONGOING
	D. When practical, existing drains discharging directly into marine waters or water bodies, should be enhanced with infiltration/sedimentation basins to incorporate pollution stripping (LG's, WRC, WC, Community). HIGH
	E. Stormwater management should be designed and implemented at the earliest opportunity to avoid stormwater disposal into marine waters and water bodies (LG's, WRC, WC, Community). ONGOING
	F. Increase community awareness of the potential impacts associated with inappropriate disposal of contaminants through stormwater systems (WRC, WC, LG's, Community). HIGH
	G. Develop a campaign which promotes community awareness of the end-of-pipe destination for stormwater eg. marine logo which can be painted next to stormwater drains to indicate that the pipe exits at the sea (WRC, WC, FWA, LG's, SCMG, Community). MEDIUM





Wetland vegetation plays an important role in the ecological function of wetlands.
- Poison Point - (SoDe).



Stokes Inlet, Stokes National Park



Sandbar openings are naturally dictated by water levels, tides, coastal processes, and weather patterns.
- Parry Inlet - (SoDe).



Many inlets have, in the past, facilitated transport of agricultural produce.
- Torbay Inlet - (CoA).

13. NATURE-BASED TOURISM DEVELOPMENT ISSUES

strategic objectives and actions



The coastal and marine environments of the South Coast are still pristine and intact. The South Coast community also hold the environment in very high esteem making it a unique place to live, recreate and visit. Nature-based tourism, as a developing industry, is an important component of Southern Shores because a sustainably developed nature-based tourism industry may be well placed to enhance protection of the South Coast environment while also providing for strong economic growth and continued community vitality.

13.1 PLANNING FOR NATURE-BASED TOURISM DEVELOPMENT

KEY CONCERNS

- There is no whole of South Coast Region strategy in place to promote and enhance the sustainable and successful development of the nature-based tourism industry.
- Tourism ‘boundaries’ tend to inhibit the strategic marketing of the south coast as a whole.

EXISTING ACTIONS

- ✓ Nature-based Tourism Strategy for Western Australia (Government of Western Australia, 1997a)
- ✓ National Ecotourism Strategy (Commonwealth Department of Tourism, 1994)
- ✓ Great Southern Regional Tourism Strategy (Equity, 1996)
- ✓ South-west, Great Southern and Esperance Tourism Associations are working together to promote tourism in the South Coast as a whole.
- ✓ Strategic Plan for the Tourism Industry in the South East Region of Western Australia (Tourism Co-ordinates, 1997).
- ✓ The Esperance Regional Tourism Infrastructure and Product Plan is currently being developed by WATC.

STRATEGIC OBJECTIVE



Nature-based tourism development will be guided by a regional and coordinated strategy to ensure its success as an environmentally, economically and socially sustainable industry in the South Coast.

ACTIONS	<p>A. Gain an understanding of the current status of nature-based tourism operations in the South Coast Region and their value to the Regions economy (WATC, ERTA, GSTA, GEDC, CALM, FWA, DoT, LG’s, NLC, GLC, Tourism operators, SCMG, Community). HIGH</p> <p>B. Investigate potential development of the industry based on other case studies and realistic projections (WATC, ERTA, GSTA, GSDC, CALM, FWA, DoT, LG’s, NLC, GLC, Tourism operators, SCMG, Community). HIGH</p> <p>C. Produce a nature-based tourism strategy for the entire South Coast Region which promotes creative and coordinated development of the nature-based tourism industry (WATC, ERTA, GSTA, GSDC, GEDC, CALM, FWA, DoT, LG’s, NLC, GLC, Tourism operators, SCMG, Community). HIGH</p>
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13.2 ACCREDITATION OF NATURE-BASED TOURISM OPERATORS

KEY CONCERNS

- Because of the newness of the nature-based tourism industry, some people enter the industry as unqualified or inexperienced operators who may have limited knowledge and understanding of the responsibilities which should support nature-based activities.

EXISTING ACTIONS

- ✓ National Eco-tourism Accreditation Program (Eco-tourism Association of Australia).
- ✓ WATC and Regional Tourism Associations actively promote accreditation.
- ✓ All charter boats operating in Western Australia have to be licensed under the requirements of the Fisheries Resources Management Act (1994).

STRATEGIC OBJECTIVE



The nature-based tourism industry will be supported by accredited and responsible nature-based tourism operators.

ACTIONS	<p>A. Encourage nature-based tourism operators to attain accreditation through the National Eco-tourism Accreditation Program (WATC, ERTA, GSTA, GSDC, GEDC, CALM, FWA, DoT, Tourism Operators, SCMG, Community). ONGOING</p> <p>B. Develop an association of nature-based tourism operators in the Region who work together to support the development of a sustainable nature-based tourism industry and operator ethics (WATC, ERTA, GSTA, GSDC, GEDC, CALM, FWA, DoT, Tourism operators, SCMG, Community). HIGH</p>
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13.3 INFRASTRUCTURE SUPPORT FOR MARINE-BASED TOURISM OPERATORS

KEY CONCERNS

- There is concern that marine-based tourism operations are not being fully supported by the provision of safe mooring facilities at appropriate sites to maximise the tourist trade and ensure visitor safety, particularly in Albany.
- Hopetoun marina is considered unsafe in some weather conditions.

EXISTING ACTIONS

- ✓ Vancouver Waterways Plan
- ✓ Albany Harbours Planning Strategy (Albany Waterways Management Authority & City of Albany, 1997).

STRATEGIC OBJECTIVE



Marine-based tourism operations will be supported through the provision of appropriate infrastructure to maximise efficiency and successfully service tourist trade while ensuring visitor safety.

ACTIONS	<p>A. Implement appropriate infrastructure planning for Albany Harbours to support a range of marine-based tourism activities in a safe, economically and environmentally sustainable manner (CoA, AWMA, DoT, APA, GSDC, Tourism operators, SCMG, Community). HIGH</p> <p>B. Undertake planning to support marine-based tourism infrastructure development for all coastal towns as part of a regionally coordinated nature-based tourism strategy (GSDC, GEDC, WATC, ERTA, GSTA, CALM, FWA, DoT, Tourism operators, SCMG, Community). HIGH</p> <p>C. Review effectiveness of Hopetoun marina to provide safe mooring, loading and unloading facilities (DoT, SoR, Community). HIGH</p>
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The South Coast has incredible scenic value, both Summer and Winter.
- Breaksea Island Nature Reserve -

13.4 NATURE-BASED TOURISM ACCOMMODATION OPPORTUNITIES

KEY CONCERNS

- There are few accommodation options which encompass nature-based products in the south coast.
- The South Coast has an opportunity to promote parts of its natural, vastly untouched coastal environment as a unique and well managed nature-based holiday get-away for those who wish to experience peace and tranquility. However, few if any opportunities for this exist at present on the coast.
- Nature-based tourism accommodation options are also limited at sea with few operators offering short term voyages.
- People using informal camp grounds are generally looking for an affordable way to experience the natural environment. However, informal camp grounds are often poorly managed and degrade the experience originally sought by visitors.

EXISTING ACTIONS

- ✓ GSDC has commissioned (2000) a Pre-feasibility Study into the development of a wilderness lodge.
- ✓ STS Leeuwin visits the South Coast for a one month period annually to undertake Eco-Voyages and has recently been named the British Airways Tourism for Tomorrow Award winner for the South West Pacific Region.
- ✓ CALM is considering the potential for appropriate low key accommodation developments on selected CALM managed estate.
- ✓ Interest in nature-based tourism accommodation is growing in the Shire of Esperance.

STRATEGIC OBJECTIVE



Nature-based tourism opportunities will incorporate accommodation options which enable visitors to experience the coastal and marine environment in the most natural way possible.

ACTIONS	<p>A. Develop planning to identify nature-based tourism accommodation opportunities for coastal and marine areas which can offer an appropriate experience. Potential areas could include Alexander Bay (SoE), Mason Bay (SoR), Doubtful Bay and/or Miller's Point (SoJ), Boat Harbour (SoDe). Incorporate as part of a regionally coordinated nature-based tourism strategy (WATC, ERTA, GSTA, GSDC, GEDC, CALM, FWA, DoT, LG's, NLC, GLC, Tourism operators, SCMG, Community). HIGH</p> <p>B. Invite expressions of interest for development of nature-based tourism accommodation opportunities and experiences for areas of the coast which are currently poorly managed because of their remoteness from management bases (see above for potential areas) (LG'S, DoLA, WATC, ERTA, GSTA, GSDC, GEDC, NLC, GLC, FWA, SCMG, Community). HIGH</p>
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13.5 PROMOTION OF NATURE-BASED TOURISM PRODUCTS

KEY CONCERNS

- There appears to be a lack of organised or coordinated promotion of nature-based tourism products in the South Coast.
- The activities of the Esperance Regional Tourism Association and the Great Southern Tourism Association are dependent to a large degree on financial support from Local Government and tourism operators who are constrained by limited resources.
- Local Government are unable to provide large sums for promotional activities because of small rate bases and many of the operators are small businesses which are unable to provide substantial support.
- Financial support for the region from the Western Australian Tourism Commission appears to be inequitable when compared with other regions in the State.
- Most visitors to the coast come from within the South Coast Region, with few visitors from intrastate, interstate or overseas (Goefit & Alder, 2000) suggesting that current marketing promotions may not be effective outside the Region.
- Commercial operators and tourism agencies have not fully utilised the possibilities offered by Aboriginal heritage.
- Small coastal towns are suffering economically and socially because they are not given adequate promotional assistance for their nature-based tourism products.

EXISTING ACTIONS

- ✓ Self promotion by individual operators.
- ✓ Some support is offered by local tourist bureaux/visitor centres.
- ✓ South-west, Great Southern and Esperance Regional Tourism Associations are working together to cooperatively market the South Coast experience.
- ✓ Regional Tourism Associations coordinate production of annual holiday planners and industry product promotion.
- ✓ GSDC is working with other agencies to establish Centre of Excellence in Natural Resource Management (commencing operation in 2001/2) which will incorporate an interest in nature-based tourism.

STRATEGIC OBJECTIVE



The South Coast will be established as the 'Nature-based tourism capital of Australia' through good promotional campaigns and a regionally coordinated effort by operators and tourism agencies.

ACTIONS	
	<p>A. Develop planning to support nature-based tourism marketing and promotions as part of a regionally coordinated nature-based tourism strategy (WATC, ERTA, GSTA, GSDC, GEDC, CALM, FWA, DoT, LG's, NLC, GLC, Tourism operators, SCMG, Community). HIGH</p> <p>B. Encourage nature-based tourism operators and tourism agencies to support marketing and promotions at the national and international level (WATC, ERTA, GSTA, GSDC, GEDC, CALM, FWA, DoT, LG's, Tourism operators, SCMG, Community). ONGOING</p> <p>C. Encourage nature-based tourism operators and tourism agencies to involve, form partnerships with and support Aboriginal cultural and heritage perspectives as part of nature-based tourism (WATC, GSTA, ERTA, GLC, AAD, SAC, AAE, BoIAC, LG's, CALM, WRL, Tourism Operators, SCMG, Community). ONGOING</p> <p>D. Pursue equitable supporting arrangements from WATC for promotion of the south coast as a nature-based tourism destination (GSTA, ERTA, GSDC, GEDC, LG's, SCMG, Community) HIGH</p> <p>E. Develop, support and promote festivals which promote the environmental values and nature-based tourism products of the south coast region [eg. Festival of the Wind, Esperance] (WATC, ERTA, GSTA, GEDC, GSDC, SCMG, LG's, Tourism operators, SCMG, Community) HIGH</p> <p>F. Develop marketing, research and promotional strategies to increase aboriginal participation in the cultural and nature-based tourism industry (AAD, SWCoE, NLC, GLC, SAC, AAC, BoIAC, GSDC, GEDC, CALM, FWA, WRC, LG's, SCMG, Community). HIGH</p>

13.6 BEACH USE BY COMMERCIAL OPERATORS

KEY CONCERNS

- Shires/City are unaware of the level of use by commercial tourism/recreation operators of beach infrastructure.
- Most commercial operators using public infrastructure such as barbecues, boat ramps, picnic areas, toilets and car parks do not contribute to the maintenance of this infrastructure.

EXISTING ACTIONS

- ✓ CALM charge commercial operators minimal fees, to assist in maintenance of infrastructure in CALM managed estate
- ✓ Land managers can seek guidance from CALM regarding the management and regulating of commercial operators at coastal locations.

STRATEGIC OBJECTIVE



There will be improved management and regulation of commercial operators in coastal areas.

ACTIONS	<p>A. Assess which commercial operators are active on the coast and what level of activity is occurring in LG reserves and determine a minimal fee which can contribute to the management of those reserves (LG's, DoLA, Commercial operators, Community). HIGH</p> <p>B. Commercial operators will be regulated to contribute a minimal fee to assist in the maintenance or introduction of management infrastructure at their preferred coastal destinations (LG's, DoLA, Community). ONGOING</p>
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Greens Pool, Williams Bay National Park, has been identified as the most popular coastal location in the South Coast and is an attractive destination for summer tourists.

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APPENDIX 1.**ACRONYMS**

AAC	Albany Aboriginal Corporation
AAD	Aboriginal Affairs Department (now known as Dept. of Indigenous Affairs)
ACC	Area Consultative Committee
ACoWA	Aquaculture Council of Western Australia
AgWA	Agriculture Western Australia (soon to be known as Dept. of Agriculture)
AIMPAC	Australian Marine Pests Advisory Council
AMSA	Australian Maritime Safety Authority
ANZECC	Australia & New Zealand Environment and Conservation Council
APA	Albany Port Authority
APB	Agricultural Protection Board
AQIS	Australian Quarantine Inspection Service
AWMA	Albany Waterways Management Authority
Bc	BushCare
BolAC	Bay of Isles Aboriginal Community
CALM	Department of Conservation and Land Management (soon to be known as Dept. of Conservation)
CoA	City of Albany
ConComWA	Conservation Commission of Western Australia
CSIRO	Commonwealth Scientific and Industrial Research Organisation
Cw/Cc	Coastwest/Coastcare
Cwlth	Commonwealth Government
CZC	Coastal Zone Council
DEP	Department of Environmental Protection (soon to be known as Dept. of Environment, Water and Catchment Protection)
DoLA	Department of Land Administration
DoMPR	Department of Minerals and Petroleum Resources
DoT	Department of Transport (Marine Division) (now known as Dept. for Planning and Infrastructure)
DS	Disability Services
EAC	Esperance Aboriginal Corporation
ERTA	Esperance Regional Tourism Association
EsPA	Esperance Port Authority
FESA	Fire and Emergency Services Authority
FWA	Fisheries Western Australia (now known as Dept. of Fisheries)
GEDC	Goldfields/Esperance Development Commission
GLC	Goldfields Land Council
GSDC	Great Southern Development Commission
GSTA	Great Southern Tourism Association
IMCRA	Interim Marine and Coastal Regionalisation for Australia
LfW	Land for Wildlife
LG's	Local Government
LG	Local Government
MfP	Ministry for Planning (now known as Dept. for Planning and Infrastructure)
MPRA	Marine Parks and Reserves Authority
MRSWG	Marine Reserves Selection Working Group
MRD	Main Roads Department
NLC	Noongar Land Council
NIMPCG	National Introduced Marine Pests Coordination Group
SAC	Southern Aboriginal Corporation
SCMG	South Coast Management Group
SCRIC	South Coast Regional Information Centre
SCRIPT	South Coast Regional Initiative Planning Team
SES	State Emergency Service
SoDe	Shire of Denmark
SoDu	Shire of Dundas
SoE	Shire of Esperance
SoJ	Shire of Jerramungup
SoR	Shire of Ravensthorpe
SWCoE	South West Commission of Elders
WAFIC	Western Australian Fishing Industry Council
WAPC	Western Australian Planning Commission
WATC	Western Australian Tourism Commission
WC	Water Corporation
WIMA	Wilson Inlet Management Authority
WRC	Water & Rivers Commission (soon to be known as Dept. of Environment, Water and Catchment Protection)