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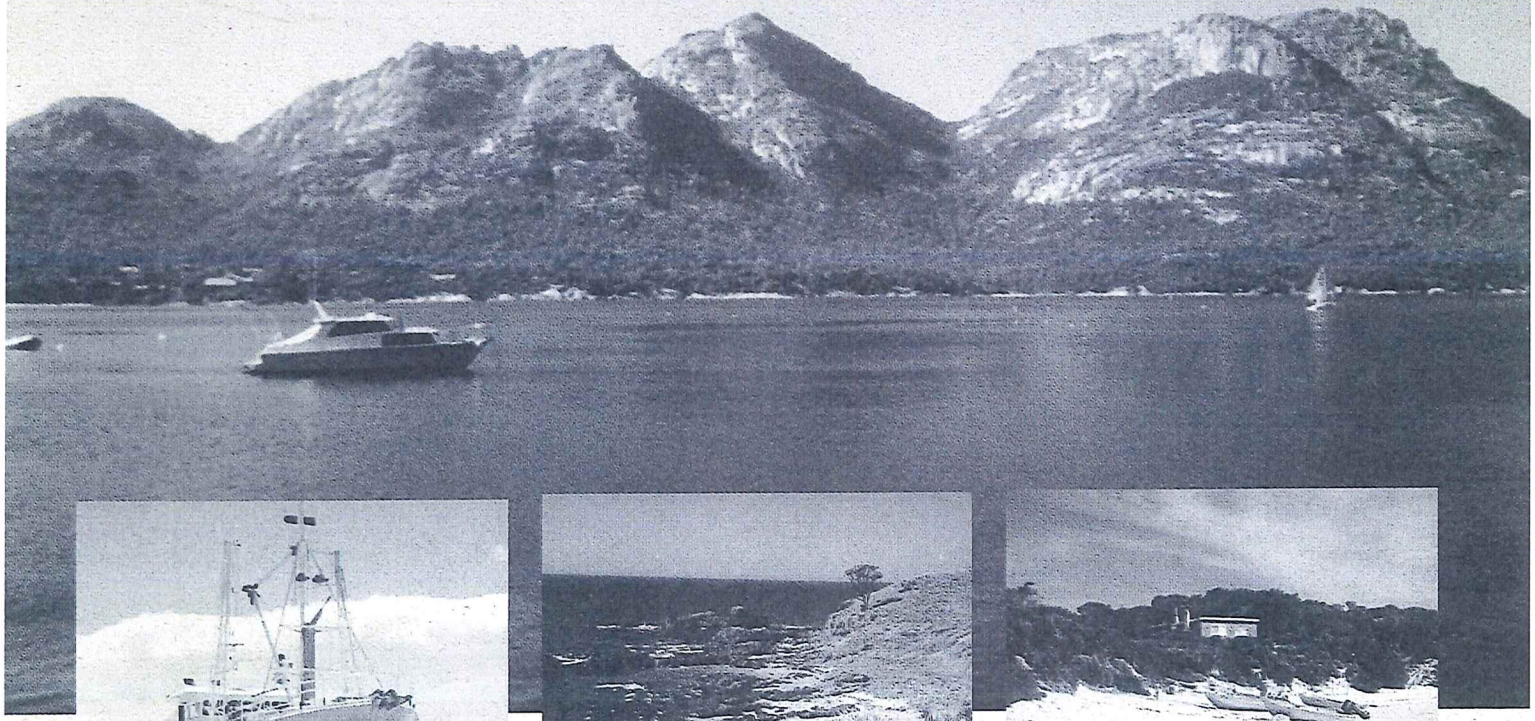
Marine & Coastal Management Strategy



Dorset, Break O'Day and Glamorgan/Spring Bay Councils

Summary Report – August 1995

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FOREWORD

The future of our Coastal resources is highly dependent on the present strategy and requirements of the people for a diversity of uses.

This strategy that has been developed by the consultants with the help of the general public, industry, Councils, and Governments has endeavoured to bring forward the concerns and wishes for a better coastal and adjacent hinterland management.

The future requirements for aquaculture, agriculture, tourism, and private recreation are of the utmost importance and action taken now will provide a sustainable environment for all to benefit from in the future.

The problems that exist along our coastline will not be fixed in five minutes, but by having a strategy these concerns can be rectified in a sensible manner.

Thanks must be given to the Federal Minister for the Environment for the foresight in providing a substantial grant for the development of this coastal management strategy. The three Councils involved in the strategy all have a common goal in seeing this project move ahead for a better regional coastal structure.

R W Legge
Chairman Coastal Management Project Steering Committee
Mayor Break O'Day Council

INTRODUCTION

This report provides a summary of Coastal and Marine Management Strategy for the three Council areas of Dorset, BreakO'Day and Glamorgan/Spring Bay on the north east and east coasts of Tasmania. The purpose of the strategy is to provide Councils, Governments and local communities with practical tools to manage the use and development of resources in one of Australia's premier coastal and marine environments.

The strategy has been prepared in accordance with the principles of Integrated Local Area Planning. These principles seek to bring community resources to bear on management in an integrated and holistic way and to provide the tools to produce real and practical results. The test of its success will be whether the resources of coastal and marine areas are managed for long term sustainability.

There is widespread evidence that many of these resources are not being adequately managed. If this strategy cannot improve that situation it will have failed. The responsibility for management falls on all resource users, and not just on Councils and Governments. The management focus is on influencing the practices and behaviour of resource users to achieve better management outcomes.

This project has been funded by the Federal Department of Environment Sports and Territories and is a National Pilot for coastal zone management. The proposals here are applicable in other regions and provide practical means of putting in place effective management of coastal and marine resources.

The consultants wish to acknowledge the support and assistance received from the project steering committee without which the project would not have been possible. Invaluable assistance was also received from Councils, a number of State Government Departments and a number of commercial operators in the region. Community groups and individuals provided considerable help with background material and through participation in community forums. The success of the project has depended in large part on this assistance.

The views expressed in this report are those of the consultants and in no way represent the opnions or views of any member of the Steering Committee.

Bob Graham

Project Director
TASQUE
1 August 1995.

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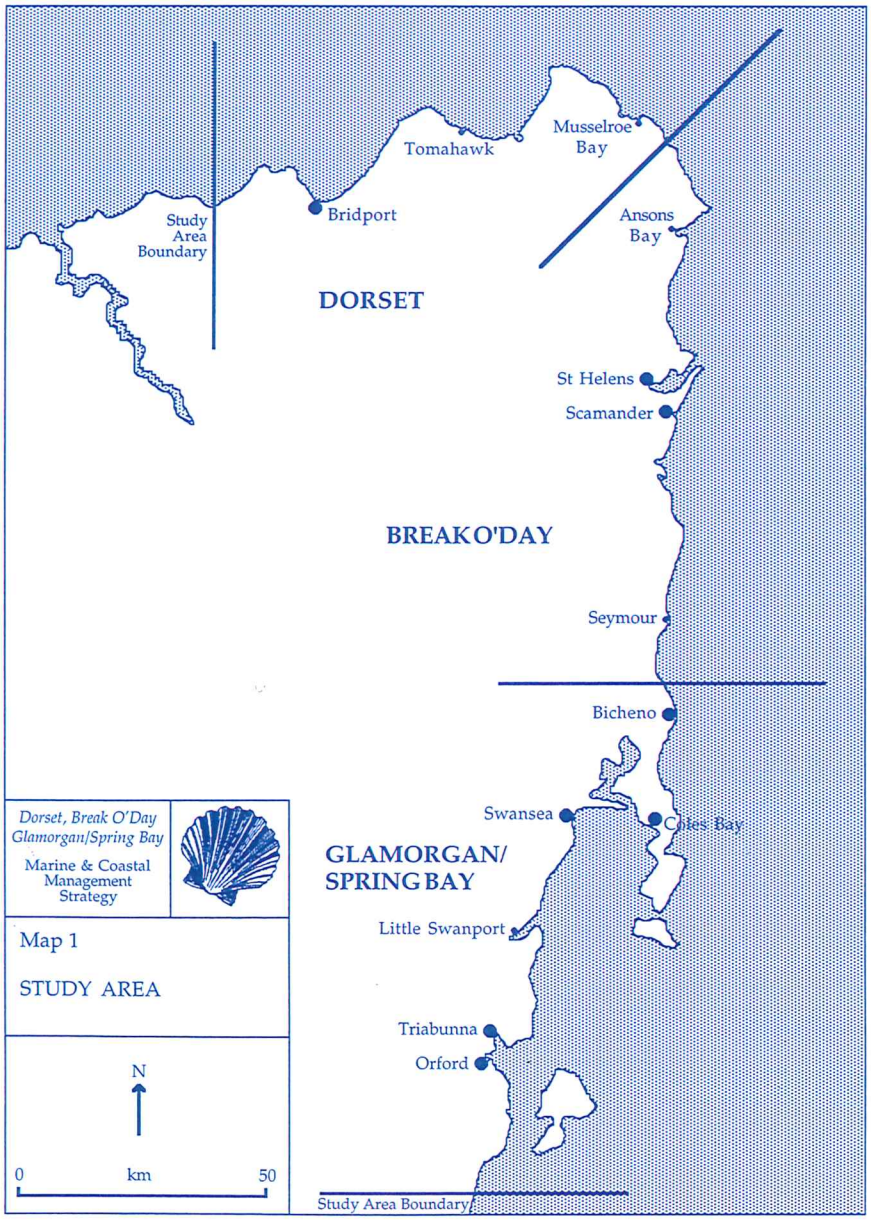
1.0 Background to the Strategy

1.1 Purpose of the Project

This project produces a strategy for management of the marine and coastal resources of north-eastern and eastern Tasmania (Map 1). The study area covers the coastal areas of Dorset, Break O'Day and Glamorgan/Spring Bay councils.

The definition of the coastal zone is that used by the Resource Assessment Commission (1994), which proposes that the boundaries of the coastal zone will vary according to the nature of the problem and to the objectives of management. For example the area of concern for managing water quality would be natural drainage basins abutting the coast (RAC 1994: 7).

The principal outcome is a single agreed coastal and marine management strategy for the area. The emphasis is on producing practical tools for communities to manage coastal resources.



The strategy also provides a framework for planning, decision making and resource management by councils, industries and government.

It is not another plan, but a means of managing the way that resources are used. The strategy builds on the existing and continuing work of councils and the State Government in coastal planning.

1.2 Strategy Components

This document provides an outline of the background to and requirements for the strategy. A set of appendices provides more detailed information and background material. The components of the strategy are:

1. *An overview of the resources and values of the coastal zone in the Dorset, Break O'Day and Glamorgan/Spring Bay local government areas;*
2. *A statement of the objectives for management - i.e. what is to be achieved through management;*
3. *An evaluation of current management and its strengths and weaknesses, and an assessment of resource management issues;*
4. *A statement of the guiding principles and specific management guidelines to be applied through the strategy;*
5. *An outline of the management tools to be used; and*
6. *A statement of the structures proposed for management.*

The strategy provides a means to address existing and emerging management problems by using local resources and through strengthening existing management structures. Actual implementation must be the job of the people who live, work in and use the resources of the region.

The work has been funded by the Federal Department of Environment, Sport and Territories. It has also been strongly supported by the three councils and by several State Government agencies. It has been managed by a Steering Committee consisting of local, State, community and industry representatives.

The work was carried out under the Integrated Local Area Planning program (ILAP). The principles upon which ILAP is based are:

- *planning and management strategies need to be holistic, taking into account physical, social, environmental, cultural and economic factors;*
- *partnership between governments, councils, communities and the private sector is fundamental;*
- *there must be a shared vision for the future management of resources;*
- *integration and coordination are best achieved locally; and*
- *roles for each of the groups involved in management need to be identified.*

The key to this approach is to identify the issues to be tackled and to bring community resources to bear on producing real and practical results. It is not about producing more plans and strategies, nor focusing narrowly on specific projects or issues. What this strategy will do is provide a purpose for management and a way of achieving that purpose.

1.3 Tasmania's Resource Management and Planning System

> *Tasmania's coast is a special place and a major economic asset which can be enjoyed and sustainably used by all while its natural beauty and life supporting capacity are maintained* (Draft State Coastal Policy, June 1994).

The sustainable use of the unique and special coastal and marine resources in Tasmania must become the driving force behind coastal management. Tasmania has more coastline in relation to land than any other State. Links to the sea and to the coast by both the Aboriginal population and Tasmanians of European descent are strong. The coast is a special place and our future ability to use and enjoy it depend on looking after it and using it wisely.

In addition, the study area is part of a marine environment that is of international significance and is considered to be more biologically important than the Great Barrier Reef.

Commonwealth, State and local governments, communities, commerce, industry and tourists are all increasingly concerned with the state of our coastal lands and waters. The Tasmanian State Government has introduced a Resource Management and Planning System (RMPS) which directly affects the management of coastal resources. Underlying that system is the principle of *sustainable development*.

The RMPS sets out the following definition of sustainable development:

> *managing the use, development and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic and cultural well-being and for their health and safety while:*
>
> *(a) sustaining the potential of natural and physical resources to meet the reasonably foreseeable needs of future generations;*
> *(b) safeguarding the life-supporting capacity of air, water, soil and ecosystems; and*
> *(c) avoiding, remedying or mitigating any adverse effects of activities on the environment.*

Detailed objectives for the system are set out in Appendix 1.

Legislation supporting the RMPS has recently been put in place in Tasmania. It covers land use planning, State policies, environmental management, heritage, fisheries, Aboriginal relics and development approvals. The Draft State Coastal Policy and new fisheries policies and legislation have been developed under the system.

The new legislation has provided local government with a greater ability to manage its own affairs. The three councils in the region have developed new strategic and land use planning policies. These also address issues of coastal management.

These developments provide a framework for the management of land and water resources on the east and north-east coasts of Tasmania. There is now a better framework within which to manage coastal resource for both local and State Government agencies.

2.0 Resources of the Study Area

The study area stretches from Bridport in the north-east to south of Orford in the south-east (Map 1). It includes over 500 km of coastal and marine environments and a wide variety of marine and terrestrial ecosystems. With a permanent population of only 9 500 (1991), the area is not densely settled. However, it caters for a large holiday and visitor population (140 000 interstate visitors in 1991). Although settlement has spread along the coastline, large stretches of coast remain undeveloped.

Tourism, fishing, marine farming, agriculture and forestry are the main economic activities.

There are areas of outstanding natural beauty and other areas where human activity has created significant resource degradation. The study area is experiencing increasing development pressure, particularly from rural land fragmentation, land subdivision, recreational activities and marine farming. It also provides an important recreational focus for visitors from within and outside Tasmania. The study area's economic future depends heavily on the maintenance and enhancement of the existing resource base.

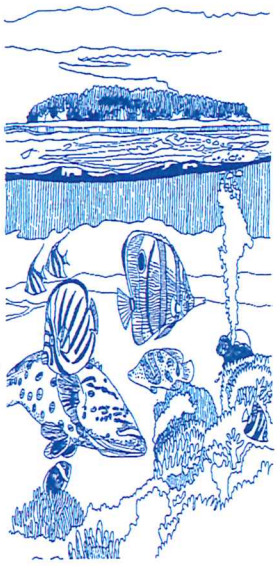
2.1 Physical Environment

The study area has a variety of coastal land forms. In the north and north-east extensive dune and beach systems are backed by low lying, poorly drained plains. On the east coast from Musselroe Bay to Bicheno there are long stretches of sandy beaches interspersed with granite outcrops forming headlands and offshore islands. St Helens is situated on a large bay the size of Sydney Harbour enclosed on the northern side by granite hills and on the southern side by large sand dunes. Freycinet Peninsula consists of granite mountains and rocky shorelines with small beaches and embayments. South from Swansea the parent rock is dolerite and narrow beaches have formed in front of undulating hills and plains.

There are extensive wetland systems, particularly in the north-east between Bridport and Musselroe Bay and between Swansea and Bicheno at Moulting Lagoon. The rivers of the region are generally short with wide fluctuations in flow. Extensive bar and ridge systems have formed at the mouths of many rivers and smaller estuaries, and wetlands have formed behind the dune systems. Little is known about the physical characteristics of the sea floor in any section of the coast.

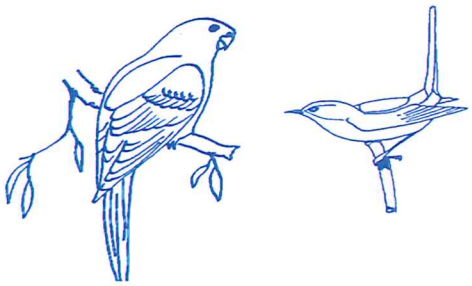
Large areas of coastal land have been cleared for agricultural purposes. However, extensive areas of native vegetation cover remain. On the dune and beach ridge systems, grazing and firing has resulted in extensive wind erosion and marram grass has been introduced to stabilise these areas. Coastal wattle, *Allocasuarinas* and a variety of other native shrubs also occur on more recent sand formations. In areas behind the dune systems, coastal heath and woodland is common, with isolated areas of native grassland which support native mammal populations. The forests are predominantly dry schlerophyll woodland, with some of Australia's most extensive tracts of this habitat occurring in the study area. There are widespread infestations of environmental weeds in all areas of the coast.

As with the physical characteristics of the sea bed, little is known about flora in offshore areas. There are extensive areas of seagrass, and kelp beds are common along many of the rocky coasts. There is evidence that both of these habitats have been significantly diminished by human activity.



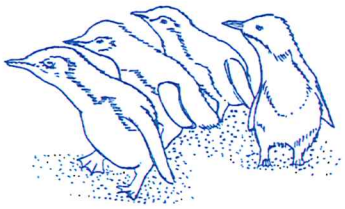
There is limited knowledge of the temperate marine benthic flora and fauna in the study area

The study area supports large populations of both terrestrial and marine mammals and birds. All of the native Tasmanian mammal species are found in the study area, including the eastern grey kangaroo, Tasmanian pademelon, rufous wallaby, ringtail and brushtail possum, Tasmanian bettong, eastern and spotted quolls, Tasmanian devils, echidnas, platypus, bats and native rodents, and the three species of Tasmanian snakes are also found in the study area along with a varied invertebrate fauna.



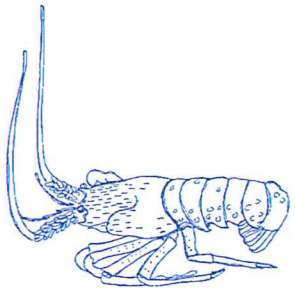
Lorikeets, parrots and wrens are among the endemic bird species occurring in the study area

There are sixty five bird species found in the terrestrial areas, and over thirty seabird species frequent both inshore and offshore waters, including the little penguin, Australasian gannet, three albatross species, silver and pacific gulls, terns, oystercatchers, plovers and dotterels and pelicans.



Fairy penguins have nesting and breeding sites on many of the beaches in the study area

The four major National Parks (Mt William, Douglas Apsley, Freycinet and Maria Island) provide valuable habitats for terrestrial animals and birds. Wetland and estuarine areas provide habitats for a range of aquatic animals including many fish species, snails, shellfish, eels, and a range of invertebrate fauna.



Over-exploitation of rock lobster means that careful management is required to ensure a continued sustainable harvest

There is evidence of over exploitation and mismanagement of the native fish populations. Despite this, the study area has a rich marine fauna which supports both commercial and recreational fisheries. As with many other aspects of the physical environment there are significant gaps in knowledge of both terrestrial and marine fauna. There are also a number of introduced pest species, including feral cats and dogs, goats, pigs, blackbirds, starlings, kookaburras, house sparrows, seastars, the Japanese seaweed undaria and rats and mice.

The study area has a mild climate in comparison with the rest of Tasmania. Rainfall nowhere exceeds 800 mm per annum and in some localities in the south-east is as low as 500 mm. Temperatures are mild to cool with a winter maximum of 13^{o}C and a summer maximum of 23^{o}C. Sea temperatures are low varying between 12^{o}C in winter and 19^{o}C in summer. Inshore waters experience a far greater range of temperatures.

Wave energy is much lower than in other parts of the Tasmanian Coastline. However, there is evidence that longshore currents, particularly from south to north contribute to substantial movement of depositional material. This movement can occur in both onshore and offshore areas. Wind energy is highest in the area between Bridport and Cape Portland where strong north-westerly winds are experienced in winter and spring. Unstable sand dunes in this area are susceptible to wind erosion. Similar problems occur in other regions; however, lower wind intensity results in lower levels of wind erosion.

The study area is one of Australia's most attractive coastlines, with white granite beaches, largely undeveloped coastal lands, mountains and offshore islands. In short, it contains extensive areas in which natural values are high. It has been aptly described as *"a natural jewel in Australia's coastline"*.

2.2 Human Occupation

Prior to European occupation much of the east coast was used by groups of Aboriginal Tasmanians. These people are estimated to have occupied the area for between 30-40 000 years. Many of today's coastal landforms were produced following the retreat of the last ice age 6-10 000 years ago. It is in these areas that evidence of aboriginal occupation is easiest to find.

Aboriginal Tasmanians occupied the study area for thousands of years prior to the arrival of Europeans and evidence of their presence needs to be appropriately protected and managed

Extensive middens occur at many sites and many tools and other artifacts can be found. Aboriginal Tasmanians depended on shellfish, animals and bush food for their survival. The east coast was a particularly important locality for the aboriginal population in winter. Groups moved from the central highlands to the warmer east coast during the cooler months.

Evidence of occupation by Tasmanian Aborigines can be found along the entire coastline indicating that most coastal areas were able to support Aboriginal groups. One of the largest middens in Tasmania can be found at Musselroe Bay. This site has been degraded and is inadequately managed.

Following European settlement, the east and north east coasts of Tasmania were developed for agriculture, fishing and forestry. Major convict settlements were established at Orford, Little Swanport and Swansea. Fishing ports, sawmilling and rural service centres were the main functions of the coastal settlements. Mining was carried out as a minor activity in the St Helens and Bicheno areas, and tin mining was widespread in the hinterland. The removal of saleable timber, the clearing of land for agriculture, the sowing of pastures and the building of ports and fishing support facilities occurred in this first phase of development. The coastal townships were serviced by small local trading vessels, road communications with the larger centres of Hobart and Launceston being poor and in some cases non-existent.

Timber harvesting and saw milling have long been practiced in the study area and need to continue to be managed

With the opening up of the road network a number of smaller centres disappeared (eg Little Swanport). Development was focused on the larger centres of Orford, Triabunna, Swansea, Bicheno, St Helens and Bridport. Improved communications with larger centres such as Launceston and Hobart meant that the east coast became more accessible to visitors. As a result, Bridport, St Helens, Bicheno, Coles Bay and Orford began to develop as holiday centres for people from other parts of Tasmania. The initial holiday developments involved the construction of guest houses and similar accommodation and the building of basic holiday homes on individual blocks of land.

Although still significant, the original activities of fishing, agriculture and forestry have all declined in importance. The number of farms in the area has declined from 554 in 1981 to 373 in 1993, and the area of farmland has fallen by 44 000 hectares over the same period.

The number of people employed in each of these activities and the size of population that can be supported in the main centres, has declined consistently since the 1930s. The number of small sawmills has declined, the areas used for farming have been reduced, the nature of farming activities has changed and there has been a significant decline in the size of the fishing catch and associated employment. Some of this decline has occurred because of a change in the nature of those industries, for example, offshore fishing now requires much higher levels of investment and larger boats, many of which cannot use the small ports of the study area. Also some of the decline has been caused by over exploitation of the resource, such as in the case of scallops.

At the same time, tourism has increased substantially and the east coast is recognised for its visitor attractions, particularly its beaches and its coastal scenery. Also, alternative forms of primary industry have evolved, particularly aquaculture and viticulture.

Tourism development has been important since the 1950s. Initially, this involved the construction of a number of tourist hotels and motels, for example at Bridport, St Helens, Swansea, Bicheno, and Orford. They were located in the towns and sold themselves as holiday destinations. Good examples of this are Silver Sands at Bicheno and Blue Waters at Orford. At the same time the construction of holiday homes became an important component of building in all major centres, except Triabunna. Other forms of holiday accommodation also developed at this time, particularly camping on Crown Land (initially this was *ad hoc* and unmanaged) and specialist resorts. These provided better quality holiday accommodation within existing centres, for example Bicheno Holiday Village, the East Coaster Resort at Triabunna, and a number of developments at Coles Bay. In recent years, resort investment has been closely associated with the natural environment, and Freycinet Lodge and the Freycinet Experience provide two prime examples of this form of development.

A new form of land development began to evolve in the 1970s as returns from rural activities declined and the demand for land for recreation and holiday living increased. Many farmers saw an opportunity to subdivide their land into large lots for sale (generally 2 hectares or larger). Local authorities and the state government were permissive in allowing and in many cases promoting these subdivisions. There was no requirement for management. The consequences of development both on the environment and on the socio-economic structure of the region were not taken into account. Also, little consideration was given to management implications.

Table 1 Statistical Summary (Study Area)

Demography	1971	1991
Permanent Population	4766	9462
Occupied Dwellings	2513	3337
Holiday Homes	n/a	2378
Population 55+	n/a	2567
Primary Industry	**1981**	**1993**
Number of Farms	554	373
Total Area of Farms (ha)	416000	371000
Total Area of Crops (ha)	11700	7400
Interstate and Overseas Visitors	**1990**	**1994**
Number of Visitors	114000	136900
Number of Visitor Nights	319200	273800
Land Development	**<4000m^2**	**>4000m^2**
Subdivided Lots 1987-1993	754	379

Between 1987 and 1993 there were 1133 lots approved for subdivision in the study area, 33% of which were between 4000m2 and 20 hectares. The study area does not appear to have gained substantial economic benefit from this activity.

At the same time, many former holiday homes have been occupied on a permanent basis and there is a significant 'retirement' component in most towns. Excluding Triabunna, 30% of the 1991 population was over 55.

The designation of unallocated Crown Land as State Reserve has provided the basis for the growth of recreation activities in the area. Maria Island and Freycinet Peninsula have been popular destinations since the 1950s and the Douglas Apsley and Mt William National Parks are increasingly popular. Freycinet Peninsula is now the most visited National Park in Tasmania (201 000 visitors in 1994).

2.3 Values for Coastal Zone Management

In making decisions about the future use and management of coastal zone resources it is important to have an appreciation of the values of these resources. Values reflect attributes or processes which are of importance to the community both now or in the future. For the purposes of this strategy values are defined as:

> *The qualities upon which an area depends for its intrinsic attractiveness, overall desirability, liveability and utility.*

Like most coastal areas in Australia, the study area has a 'package' of values, which include:

- physical values associated with coastal landforms, estuaries, reefs and geomorphological processes;
- biological values associated with vegetation communities, wildlife habitats, particular species of plants and animals, biodiversity and ecological processes;
- cultural values associated with both traditional ownership and occupation by Aboriginal people and the history of European settlement;
- landscape and scenic values associated with spectacular beaches, coastal mountain ranges, islands, headlands, and estuaries, but also including forested hills and rural areas;
- recreational values associated with a wide variety of nature based pursuits such as fishing, swimming, beach activities, sailing, boating, surfing, bushwalking, camping, rock climbing, diving and sightseeing;
- economic values associated with tourism, marine farming, agriculture, commercial fishing, forestry, viticulture, building, land development and urban based services; and
- quality of life values associated with pollution free environments, relaxed life styles and a strong sense of community.

Consultations have been held with local communities, stakeholder groups and local and State Government agencies to help determine those values of the study area which are perceived to be the most important. This process has determined that the aspects that are valued most highly by residents and visitors are:

- clean and unpolluted beaches;
- clean water;
- small, uncrowded coastal towns;
- relaxed life styles;
- coastal scenery;
- the natural character of the area;
- opportunities for recreational fishing;
- bushland;
- water based recreational opportunities;
- native flora and fauna;
- marine fauna; and
- natural landscapes and seascapes.

3.0 Current Management

3.1 Current Management Structures

Resource management in Tasmania relies on a series of separate State agencies which manage discrete areas or resource categories. Local government manages resources on an area basis, but also has separate departments that deal with specific management issues, for example planning, building, engineering and health.

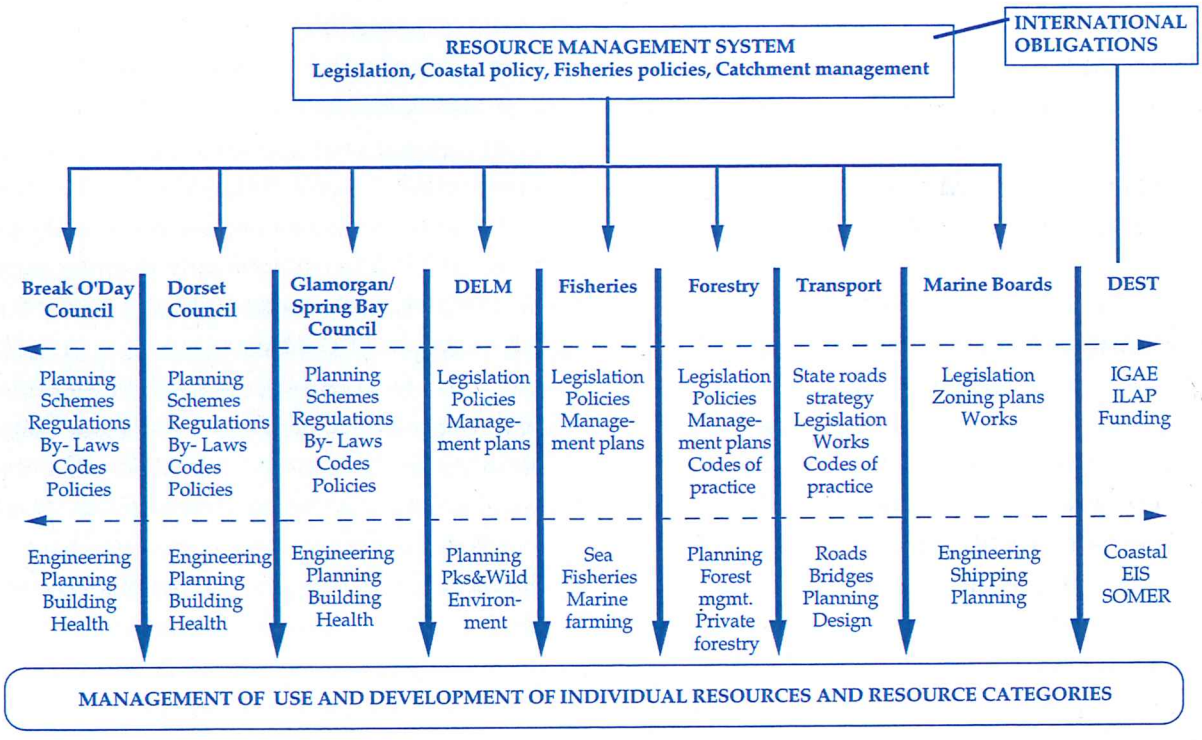
This results in a strong vertical integration of management within discrete resource categories and functional areas (Figure 1). All State Government departments have been improving their management capacity in recent years. With the implementation of the RMPS a number of policies and management strategies have been developed and management practices improved. However, these initiatives still depend on vertical integration and focus on discrete resource categories.

Local government is also improving its management capacities, particularly through improvements to strategic and land use planning systems.

The strong vertical relationships in resource management are covered by legislation, specific policies, management plans and codes of practice. On the other hand, there are weak and tenuous links between the different areas of resource management. These are generally informal, *ad hoc* and do not come under legislative or regulatory arrangements. Most management issues are dealt with on a functional basis by individual agencies.

For example, in the development approvals system there are separate approvals for zoning, subdivision, planning consent, environmental impact, building, heritage, health, drainage and a number of consequential matters. These aspects are dealt with by different agencies and levels of government and often there is little linkage between them. This makes it impossible to manage competing demands for use of resources.

Figure 1 CURRENT ARRANGEMENTS FOR COASTAL AND MARINE MANAGEMENT



In addition, decisions regarding development are not directly linked to ongoing day-to-day management. There are no performance measures or standards against which particular developments can be judged. There is weak, and in many cases, non-existent enforcement of aspects of decisions and conditions on use and approvals. For example, although many development approvals contain vegetation management conditions, there is little evidence that such conditions are enforced.

Figure 1 sets out the type of relationships inherent in this approach to management. Different State agencies and councils will have responsibility for implementing a number of the aspects of the RMPS. But there is no integrated approach to managing areas with a wide variety of resources such as the coastal zone. In addition, there are serious deficiencies in the capacity to manage.

3.2 Management Issues

There is only limited documentation on the impact of human activities on the values identified above. A review of the literature on temperate marine ecology in Australia by Underwood and Chapman (1995) indicates that knowledge of human impacts in temperate marine and coastal environments is extremely limited. The major deficiencies are in ecological processes, geomorphological processes, coastal species, (particularly inshore marine and intertidal species) and sediments in estuaries and offshore.

However, some of the effects of human activity are readily observable. The problems that have been identified are similar to those occurring in other parts of coastal Australia. The study area is fortunate in that the numbers of people, both residing in and using coastal locations, are relatively small. This has meant that the problems currently faced by coastal managers are not on the same scale as in other parts of the Australian coastline. However, the extent and nature of the problems should not be underestimated.

These issues fall under three main headings:

1. Competition for access to and use of resources;
2. Unsustainable use of resources; and
3. The need to repair and rehabilitate degraded resources.

The issues include the following problems:

- *Siltation* of coastal streams, estuaries and embayments due to urban uses, agricultural , forestry and mining;
- *Water quality* has been affected by septic tank effluent, runoff from agricultural activities, stormwater effluent, sewerage treatment, industrial activities and mining;
- *Cultural site degradation*. Both Aboriginal and European heritage in the study area has been allowed to deteriorate, and there are many instances of damage to sites;
- *Visual amenity*. Many structures and buildings are poorly sited, poorly designed and use inappropriate materials resulting in significant visual intrusion into the landscape;
- *Dune erosion*. Natural processes of erosion have been exacerbated by clearing, grazing, burning, trampling, use of off road vehicles, construction of engineering works such as rockwalls, groynes and harbour works, alterations to the hydrology of coastal streams, and the siting of buildings and other forms of construction on sand dunes;
- *Construction of coastal works*. Many coastal works have been done from a narrow engineering point of view, are often environmentally inappropriate and in some instances exacerbate the problems they were supposed to address;
- *Lack of day-to-day management*. Many of the areas used by the public on either a short or a long term basis are poorly managed by public authorities;
- *Introduction and use of exotic plant species*. Invasive weeds throughout the study area have led to degradation of native habitats and loss of local endemic species. Plant diseases have also become a problem, particularly in coastal heathlands and woodlands;
- *Wetlands*. Many of the wetlands in the study area have been adversely affected by draining, filling, clearing of the catchment, loss of water quality,

eutrophication and general lack of concern for this most important element of the coastal system;

- *Loss of seagrass*. Loss of seagrasses has been caused by a number of activities including reductions in water quality, changes in hydrology, eutrophication, physical damage and changes in species composition of animals that feed or breed on seagrasses;
- *Over fishing*. According to the Department of Primary Industries and Fisheries, "there is a general trend of decreasing catches over the years 1987 to 1992 , occurring at the same time as an observed general trend of increasing fishing effort directed at the State's scalefish resources". This relates to all Tasmanian waters including the study area;
- *Illegal hunting*. Some native birds and mammals are seen as a nuisance to commercial activities. This has resulted in birds and animals such as albatross and seals being destroyed in order to protect commercial operations;
- *Fire Management*. Frequency of burning, duration of burns, and the timing of burns do not appear to be matters that are given sufficient consideration in the use of fire as a management tool. There is also a problem of wildfire as was evident in the January 1995 fires at St Helens, Scamander and Bicheno;
- *Land alienation*. Subdivision of rural land into rural-residential lots is leading to the loss of the existing agricultural land as well as to a number of site management problems. These include removal of existing vegetation cover, introduction of exotic species, introduction of domestic and feral animals, loss of access to public areas, and significant reductions in future options for use and development of resources;
- *Uncontrolled access* to unstable and sensitive areas such as dunes, cultural sites and areas under threat from the spread of plant diseases; and
- *Poor reservation of certain habitats*, particularly intertidal and inshore marine areas and coastal heathlands.

Most of these problems have been identified through field work, discussions with stakeholders and at community forums. *There is no 'ethic of environmental management'* practised in the study area in which the principles of environmental sustainability are the primary consideration for all development and use of resources. Problems are normally seen as small and limited in their effect and are dealt with in isolation. Yet over time these problems build up and set in train irreversible damage to resources. Poor management today, can produce problems in 10, 15 or 20 years time.

The economic base and social and community assets of the study area have also been adversely affected. In an area that depends heavily on its natural resource base for its survival, poor management affects its future economic and social sustainability.

Management is under-resourced and focused on particular problems. Land use planning instruments are inadequate to resolve competing demands for resource use, there is little or no integration of management practice and there is insufficient public involvement. In addition management practice tends to focus on physical resources rather than on the people who use those resources.

3.3 Strengths of the Current System

Despite these deficiencies, the system of management currently in place has a number of strengths which make it a useful base upon which better management practices can be built. These include:

1. It has legislative backing and there are clear rules for its operation;

2. Individual agencies can resource specific programs more readily than coordination groups;

3. The public, industry and governments are familiar with the operation of the existing system;

4. Existing agencies have built up a body of knowledge and expertise in management;

5. It is easy for individual agencies to focus on particular problems and to develop policies and strategies to deal with those problems; and

6. Local government is able to deal with issues on an area wide basis and to involve local communities in management.

3.4 Weaknesses of the Current System

Despite these advantages there are critical weaknesses and gaps in the present management system. These include:

1. Poor coordination between agencies;
2. Uneven management performance between different agencies and levels of government;
3. The system is tenure based and individual agencies deal with discrete areas of land or water, whereas resources are rarely confined to any one area;
4. There is overlap, duplication and wastage of management effort;
5. Many critical areas of management are ignored;
6. It is difficult for communities to become involved in broader management issues;
7. There is a focus on specific issues and sectors of management, and issues are not dealt with holistically;
8. Most management effort is under-resourced and there is little knowledge of integrated resource management techniques;
9. The critical land/water interface cannot be dealt with under existing arrangements; and
10. Marine and terrestrial areas are treated separately with different management approaches, different agency responsibilities, and no capacity to deal with matters that cross the land/water boundary.

Despite the fact that the resource management and planning system implies a greater level of horizontal integration in management, this is unlikely to be achieved under present arrangements. Ultimately, the question of who manages the coastal zone remains unanswered, even with the significant and positive improvements in the resource management capacity of individual agencies and Local government.

The fundamental issue is that no one manages the coast. Individual agencies manage aspects of it.

4.0 Management Requirements

4.1 Requirements of a Management System

Current management arrangements are inadequate to meet the objectives of either the RMPS or sustainability. The following matters need to be specified if a strategic and integrated approach is to be put in place.

1. Identify the focus for management.
2. Specify key principles, objectives and detailed guidelines for management.
3. Specify the values to be maintained through management.
4. Identify the different management tools to be used.
5. Identify a structure to integrate management efforts at the local and regional scale.
6. Develop a more regional and interactive approach between all agencies and spheres of government.

4.2 The Focus of Management

The management of coastal zone resources requires an holistic, integrated, cooperative and multi-disciplinary approach. The focus of management has to be on how to influence the activities carried out by governments, industry, commerce, resource developers and individuals.

Management cannot be the responsibility of any single government agency nor the primary responsibility of any one sphere of government. It requires management approaches that go beyond the capacity of existing organisational arrangements, and which involve governments, industry, commerce and the community as equal players.

4.3 The Ten Principles for Management

The ten principles of management set out below have been derived from Federal and State policies and agreements. These principles are the basis upon which all management must be conducted. They set the parameters for both management practice and the operation of any management system.

The Ten Principles of Management

1. The use and development of resources must be determined by the inherent and potential values of those resources, rather than the demand for their use or development.
2. Development or use of a resource should not occur where there is a risk of irreversible environmental damage.
3. Lack of full scientific knowledge about a resource or the consequences of its use must not be used as a reason for allowing development (Precautionary Principle).
4. Development and use of resources must recognise limitations imposed by natural, biological and physical processes operating in the coastal zone.
5. The use and development of resources should maximise long term community benefit and not impose costs on future generations, those who do not gain any benefit from the use or development of resources, or be at the expense of the values of different resources.
6. Resources for management need to reflect real needs rather than merely respond to problems as they emerge.
7. The principle of best practice must apply to management at all times.
8. Development or use rights must not be given away without associated responsibilities being identified and assigned.
9. Management requires a regional approach which is not based on administrative, tenurial or physical boundaries.
10. Management must be based on partnerships between all stakeholders.

4.4 Objectives and Guidelines for Management

Whilst it is necessary to have broad statements of principle and intent these are generally inadequate for managers who need clear guidelines to operate management systems. There need to be clear statements of performance for the management of different resources and specific uses and to resolve competing demands for use.

A list of detailed objectives and guidelines has been prepared covering resource management in relation to:

- natural processes;
- water quality;
- biodiversity; and
- equity, access and community involvement.

The guidelines specify in detail the matters that resource users and developers must have regard to. For example, if they are correctly applied, coastal protection works would rely on natural processes rather than on engineering solutions such as river training, rock walls, etc. The guidelines will provide guidance and specification for day-to-day decision making and management practice.

In addition specific guidelines have been drawn up covering:

- subdivision and building;
- fishing and marine farming; and
- tourism and recreation.

These guidelines are the basis of performance standards to be used in decision making for development and its ongoing management and monitoring. For example, they specify that new subdivision for residential purposes should be confined to existing settlement boundaries. They will provide an important input into land use planning strategies for the study area.

The detailed guidelines are incorporated as Appendix 4.

Objectives

Overall Objective:
To promote the sustainable development of natural and physical resources and the maintenance of ecological processes and genetic diversity (Land Use Planning and Approvals Act 1994).

Natural Processes Objective:
Management consequences arising from the dynamic nature of coastal environments, such as fluctuations in sea level and climate, changes in shoreline position and species mobility within coastal ecosystems should be recognised as management constraints.

Water Quality Objective:
The quality of coastal waters should be maintained or restored, so that there is no significant detrimental impact on the integrity of coastal ecosystems or on water based economic and recreational activities.

Biodiversity Objective:
Local communities, and local and state governments have an obligation to protect biodiversity in the coastal zone. The biological diversity of marine and terrestrial ecosystems and natural processes within coastal biophysical regions should be maintained.

Equity, Access and Community Involvement Objective:
Coastal zone resources should be available for fair and equitable public and commercial use so that their use optimises the long term community benefit.

4.5 Area Specific Management Purposes

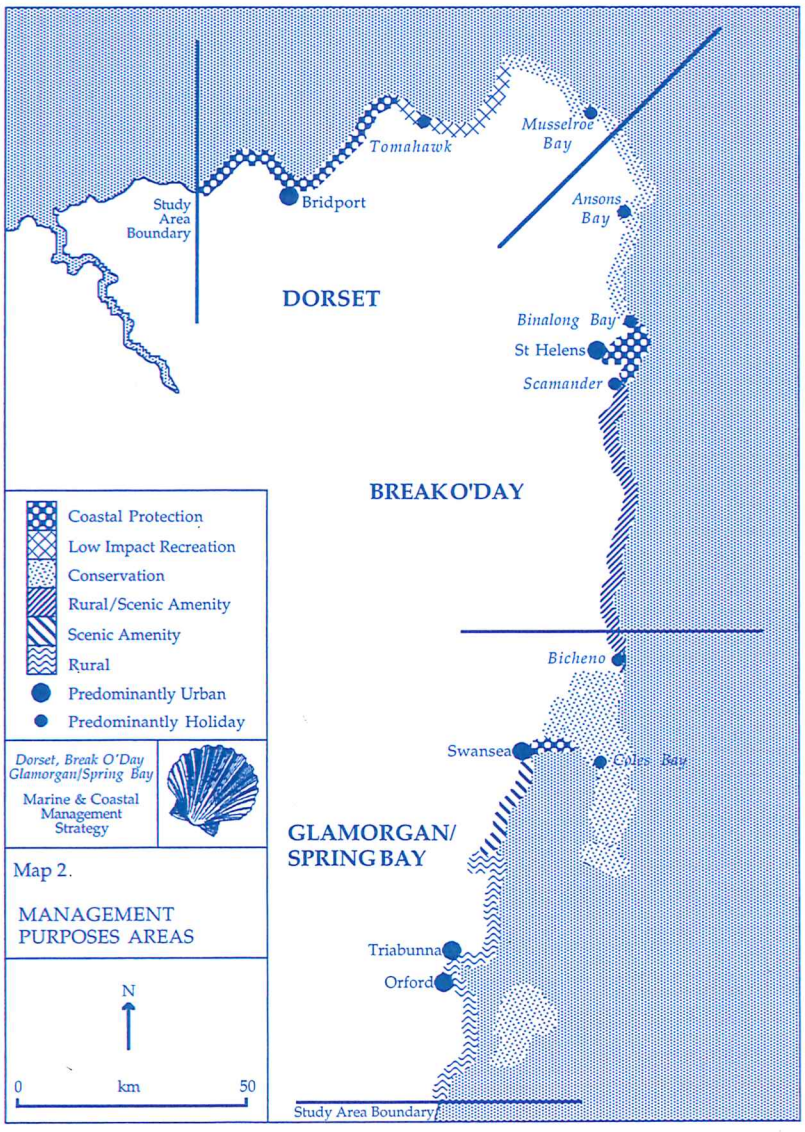
One of the key elements of this strategy is that it is 'values driven'. In other words the whole philosophy of management is directed towards the protection and enhancement of the values of the study area.

Community forums have revealed that different sections of the coastal zone within the study area have different combinations of values. It is necessary to implement management strategies which are designed to protect and enhance particular sets of values for specific sections of the coastline. It is not appropriate to implement a single management regime throughout the study area.

To assist the development of specific area management regimes, a considerable amount of the public consultation and background research effort was directed at identifying those areas in which the different management regimes would operate. The purposes to which different areas could be put and which were identified as part of this process were:

Low Impact Recreation:
Boating, fishing, swimming, sailing, walking and sightseeing.

Medium/high Impact Recreation:
Power boating, organised sporting events and off road vehicles.



Urban:
Permanent residence, industrial and commercial.

Holiday Accommodation:
Holiday flats and units, resorts and associated facilities, camping and caravan parks.

Rural:
Farming, horticulture and forestry.

Low Density Residential:
Large lot subdivisions and specific purpose residential developments

Conservation:
Maintenance and protection of areas of natural or cultural significance.

Coastal Erosion Protection:
Dune stabilisation and rehabilitation programs.

Scenic Amenity:
Protection of areas with high visual and scenic value.

Habitat Protection:
Protection of areas to maintain particular species or ecosystems.

Marine Farming:
All forms of marine farming.

This list was used to identify the areas in which specific management purposes would be dominant (Map 2). The intent of the designation of these areas is to identify the primary focus of management for each area. They represent the views of those who participated in developing the strategy. They also provide a clear framework for application of management priorities in the different areas.

The primary purposes of management have been derived from and reflect the values of each section of coastline. Specific activities associated with each primary management purpose are listed above.

This does not mean that other use and development activity associated with different sets of values cannot occur in those areas. It means that if use and development occurs for other purposes, it should be in a way or in locations that do not affect maintenance or realisation of the primary values.

For example, human activities may be allowed and development approved in an area where the primary purpose is conservation, provided that any such use or development is consistent with the maintenance and protection of the area's natural cultural values. Similarly, the towns of Bridport, St Helens, Orford, Bicheno, Swansea and Triabunna are all used for a range of urban related purposes, such as commerce, industry, residential and community recreation. They are not areas where values such as conservation of natural resources would have the highest priority. This does not mean that conservation should not be a consideration in the use and management of resources within those towns. However, the primary purpose of these areas is to provide space for a range of urban and urban related activities.

5.0 Management Measures

5.1 Management Tasks

In order to achieve the desired outcomes from management three key tasks have to be accomplished:

- competing demands for resource use have to be resolved in accordance with agreed objectives;
- sustainable use of resources must be achieved; and
- past damage must be repaired.

This will mean that:

1. New development and use of resources must comply with agreed principles and criteria for management. Achieving this will mean a major overhaul of existing development approval systems and creating linkages between those systems and resource management systems;

2. The day-to-day use of resources must be managed so that unnecessary or avoidable damage or loss to those resources is reduced. This will require the upgrading of day-to-day management to match the demands of users and/or the capabilities of resources; and

3. Rehabilitation and restoration of existing degraded resources must occur. Appropriate and adequately resourced rehabilitation and restoration programs need to be established for degraded areas and resources.

5.2 Approving new development

Systems for approving new development need reform. The implementation of an integrated approval system that is able to give a single or staged approval is required. Decision making should occur within the context of an agreed regional land and water use strategy, and criteria must be based on the principles and guidelines set out in Section 4. The system should be operated by local government, based on performance standards and incorporate State and regional criteria.

The system must be based on the following principles:

- The principle of sustainable development as defined in the Land Use Planning and Approvals Act (1994) must underly all decisions;

- Decisions must be directly linked to a regional land and water use strategy;

- The system must be able to incorporate State policies and guidelines;

- Rights to develop need to be matched with responsibilities to manage;

- Proposals for use and development should be dealt with in an holistic and integrated manner;

- Proponents must demonstrate how they are to meet the performance standards and criteria; and

- Decisions must be capable of being enforced.

A model for an integrated approval system is set out in Appendix 5.

5.3 Managing Everyday Use

Much of the *poor management* of the coastal zone results from the everyday activities of governments, industry and individuals, for example:

- overuse and degradation of coastal dune systems;
- overfishing;
- pollution of coastal waters;
- land clearance;
- introduction of exotic flora and fauna; and
- littering and the dumping of rubbish.

Managing these activities requires a change in the way resources are used and changes in culture and attitudes of users.

This can be done by:

- introducing economic instruments to manage use;
- placing restrictions on access to areas and resources;
- using quotas to control the rate of extraction or level of resource usage;
- policing and enforcing regulations, conditions of approval and lease conditions;
- education and awareness programs; and
- establishing effective community based management programs.

The primary intent should be to influence the behaviour of both resource developers and users: firstly, to encourage more appropriate practices; and, secondly, to discourage resource degrading activities. The application of these measures is discussed in detail in Appendix 6.

5.4 Rehabilitation and Restoration

Any coastal management program cannot ignore past degradation. Repair and rehabilitation of degraded resources must be an important element of any management program.

A comprehensive and consistent approach to the rehabilitation and repair of degraded resources is needed. A successful program will depend on three major foci:

- Adequate resourcing of restoration and rehabilitation programs.
- Better documentation of standards, techniques, and codes of practice for rehabilitation and restoration.
- Those involved in restoration and rehabilitation need better skills and training in appropriate techniques.

The program needs to focus on those resources which are most vulnerable to further degradation, such as dune and beach ridge systems, Aboriginal cultural sites, riparian areas, overused access points, drainage channels, estuaries and wetlands and areas experiencing invasion from environmental weeds and feral fauna.

This focus requires a comprehensive and holistic approach to planning and management for the rehabilitation and restoration of coastal zone resources. Existing rehabilitation programs also need review, particularly where they produce further management problems, such as in the case in the use of exotic and invasive flora for dune stabilisation and coastal rehabilitation works, the use of hard engineering techniques for coastal works, or the focus on preserving existing structures. Any rehabilitation program needs to be closely linked to the other two key tasks of management.

5.5 Tools for Management

The above tasks require the development and application of a range of management tools. Some of these tools are currently in use but their application needs to become widespread and consistent across all management agencies in the region. The particular tools that can be used are:

1. Regional Land and Water Use Strategy

A strategy setting out the preferred long term uses of different terrestrial and marine areas will be required to guide development decision making by Councils. The strategy should provide:

- A comprehensive analysis of the economic, physical and social background of the region as a basis for the strategy;
- A clear indication of desirable future uses of terrestrial and marine areas;
- The primary and secondary purposes for which areas may be used; and
- The performance standards for uses within different areas (eg density of development and resources and values to be protected).

2. Reservations

The land and water use strategy should provide the basis for a set of reserve proposals to protect the values identified as part of this strategy. The type of reservations required are:

- fish habitat and breeding reserves;
- a representative set of marine parks to provide for protection of sea floor flora and fauna and as a basis for protecting marine fauna and flora;
- restricted use reserves where certain activities are prohibited, eg commercial fishing;
- important geoheritage sites;
- special use reserves set aside for specific purposes, eg off road vehicles, rock climbing and surfing - these areas could also provide the basis for self management by user groups;
- cultural and/or historic sites - significant Aboriginal middens, known cultural sites, sites representative of previous cultural activities or sites of specific historic interest; and
- sites requiring management to protect particular species of rare or endangered flora or fauna.

Appendix 6 gives a list of potential reservations.

3. Planning instruments

The land use strategy should be implemented through an integrated approvals system and be based on performance standards. The strategy and associated standards should provide the criteria to operate the system. Other criteria will be derived from national standards (eg water quality and biodiversity), the objectives and guidelines spelt out in Appendix 4, values identified as part of this strategy, State policies, council strategic plans and existing codes and regulations.

A model for the system is given in Appendix 5. The system should be operated by councils, but sharing of resources, skills, information and expertise, both between councils and between state and local government, will be essential. The system would have the following features:

- use performance based criteria;
- integration of all forms of approval (for example, subdivision, development, building and health);
- incorporation of state policies; and
- enforcement through S 64 (1) of the Land Use Planning and Approvals Act.

4. Codes of Practice

Codes of practice need to be developed and adopted for a range of activities, including:

- rehabilitation works;
- track construction in sensitive areas;
- foreshore works;
- riparian vegetation management;
- catchment management;
- plantings in coastal areas;
- management of riparian areas;

Codes of practice and specific area management plans can help community groups to make a valuable contribution in coastal rehabilitation works

- road and bridge construction;
- stormwater management; and
- residential development.

A number of these codes exist for other parts of Australia and could be readily adapted for use in the study area.

5. Specific Area Management Plans.

Management plans and implementation programs are required for areas requiring direct management. These should be developed in cooperation with appropriate State agencies and local communities. They should also be directly linked to the land use strategy. The plans are required to identify management priorities in particular areas and to provide a program of actions for managing everyday use and rehabilitation and restoration works in those areas.

These Plans would consist of the following:

- background analysis of physical, environmental and management issues (eg water quality, invasive weeds, erosion, etc.);
- statement of the measures required to address the issues;
- a program of works and activities to address the identified issues;
- an implementation program covering responsibilities, tasks and resourcing; and
- a monitoring program.

6. Design Themes

There is a need for a design manual to cover public works and corporate identity in coastal areas. It would cover:

- public architecture (toilets, pump stations, change sheds etc.);

A design and upgrading program is required for public amenities in many locations in the study area. Crude pit toilets are still used in many public camping spots

- boat ramps;
- walk ways;
- siting and design of structures in areas of high visual amenity;
- landscaping;
- signage; and
- corporate identity.

7. Education/promotion/awareness

A program of information and education on coastal management issues is needed covering:

- public awareness of coastal management issues;
- information on human - environment interactions;
- user behaviour;
- appropriate management procedures and practices on private land;
- promotion of a corporate coastal management image; and
- awareness programs on coastal management initiatives.

8. Pricing Policies

There needs to be a review of existing and potential charges and pricing mechanisms for management. Region wide application of appropriate changes will be necessary. The type of charges that need to be introduced include:

- 'life cycle' costing for supply and removal of water;
- rehabilitation charges;
- user charges for use of facilities;
- developer charges;
- economic incentives to encourage appropriate development and use of resources; and
- tradeable quotas and permits.

Properly applied these instruments can provide a powerful management tool and provide resources for management. Their use is discussed more fully in Appendix 6.

9. Expert Advice

Contact needs to be formally established with potential sources of expert advice on management (eg the University of Tasmania, government agencies, industry and practitioners) and create a register of advice and information sources. It will be necessary to establish procedures and means of obtaining advice and involving experts in management. Subject areas could include:

- vegetation management;
- design;
- engineering;

- dune stabilisation;
- sustainability;
- waste management;
- water quality management;
- fauna and habitat protection; and
- marine farming.

10. Coastal Database

An information base containing data relevant to planning and management is required. It could include data on:

- levels and rates of resource extraction;
- status of rare and endangered species;
- water quality;
- demography;
- building;
- land development;
- tourism;
- community preferences;
- research initiatives in management;
- flora and fauna of the coastal zone;
- recreation usage;
- community preferences;
- status of rare and threatened fauna and flora;
- land capability;
- management costs; and
- development trends.

An information strategy for coastal management is set out in Appendix 7.

11. Enforcement

Enforcement of approval and lease conditions is required to ensure desired outcomes are achieved. Support for broader policing operations (eg fisheries, state reserves and fire management) will also be required. Specific instruments that can be used to enforce conditions and performance requirements include:

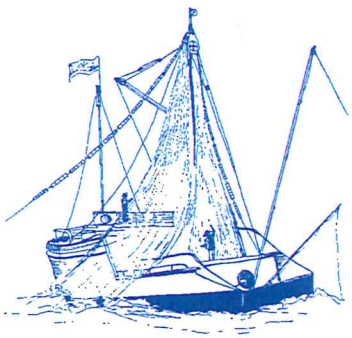
- direct policing of users and operators;
- enforceable agreements for developers and users;
- fines and charges for non-compliance;
- withdrawal of permits to remedy breaches;
- injunctions under Section 64 (1) of the Land Use Planning and Approvals Act;
- on site information and education; and
- self management by user groups.

There is an opportunity to combine enforcement and education/promotional activities.

12. Monitoring

The progress of strategy implementation has to be monitored against local, State and National benchmarks covering areas such as water quality, biodiversity, maintenance of habitats, health of fish stocks and economic success of resource use.

A detailed monitoring and review strategy is set out in Appendix 7.



Rates of resource extraction need to be carefully monitored, and the activities of resource users require policing to ensure sustainable use of the available resources

6.0 Putting it into Practice

6.1 Options

Implementation of the above program of management will require the putting in place of management structures that are able to influence management so as to achieve the ends set out above. There are four possible options for such a structure.

1. **Discretionary Model:** No change to existing approaches - improve management capacity of existing agencies.

Any management system must recognise the importance of existing players, their role, skills, knowledge and contribution to management. Improved management will focus on coordination of existing players and activities. Whilst better performance is required, on its own better performance is manifestly inadequate to achieve integrated coastal zone management. There are a number of reasons for this, including:

- Separate agencies and departments have a focus on specific resources and are rarely able to focus on a range of resource management issues within specific areas;
- The responsibilities of separate agencies and of local governments are set out in existing legislation. This legislation makes it difficult to achieve more integrated approaches; and
- Agencies tend to employ people who are specialists in the particular fields that are the primary function of those agencies. For example, engineering departments of councils employ primarily engineers, and it is not possible for people with engineering training to cover all aspects of resource management.

2. **Committee Model:** Increase and improve the level and quality of coordination between existing players in coastal management.

There is considerable merit in attempting to coordinate the activities of the many different agencies and spheres of government. There are a number of examples of this approach in other States. They have had some success, for example, in Western Australia and in the Queensland regions. The main purpose is to coordinate the existing activities of the different agencies involved and to ensure that available resources and effort are not wasted.

Whilst this is a worthwhile task, it still fails to address the question of: *who manages the coastal zone?* A coordinating agency cannot go beyond the overall capacities or responsibilities of existing management agencies. It can only attempt to bring together existing efforts, and perhaps propose new ones that may be implemented by individual agencies.

A level of coordination is necessary, but it is not likely to resolve the question of how best to integrate overall management effort in the coastal zone in the study area, and to fill the gaps in existing management efforts.

3. **Contractual Model:** Establish a new umbrella statutory body to take on directly the role of coastal management.

There have been in the past, calls to establish a coastal management agency, similar to those which exist in South Australia, Queensland and New South Wales. Whilst those agencies have achieved some success they are primarily state government bodies and focus on specific coastal management issues, such as beach protection and management. Such an approach would cut across the activities and legislative responsibilities of a

large number of existing agencies (including councils) to have a new statutory agency responsible for all matters in the coastal zone.

A further problem for such an agency is the area over which it might have jurisdiction. These are difficult to define in the coastal zone, but failure to do so, could mean the agency would have little power. This would require legislation and resources.

An additional complication is that it provides no basis for integration of local government and community effort in coastal zone management. In the States mentioned above, local government has only had a token involvement in coastal management activities carried out by these agencies. For this reason alone, it is an inappropriate mechanism.

4. **Facilitation Model:** Adopt a facilitation model with responsibility being given to a group made up of local, State, industry, community, recreational users and Federal interests.

As noted above there are many gaps in the current management system. The creation of an independent management group which draws its responsibilities from local government, State Government, the community, business and commerce is a viable option. This could be a management group which has its own charter, roles and functions. Its primary task would be the facilitation of good management practice. That role could include the integration of local government effort in coastal zone management, the provision of a means of filling the gaps in current management effort, coordinating effort between State and local government, managing the involvement of the community and business sector, and the promotion of an integrated approach to coastal zone management in the study area.

Evaluation

In order to evaluate possible options the following criteria have been used:

- Is the approach capable of achieving the stated ends?
- Is the approach able to protect the values identified for the study area?
- Will its operation contribute effectively to sustainable development?
- Is it cost effective?
- Is it capable of achieving integrated management?
- Does it fill gaps in existing management?
- What is the ease of establishment and operation?
- Is there community ownership?

Table 2 sets out the evaluation of these options against the above criteria. The facilitation model performs best against these criteria and it is proposed that this be used as the basis for implementing the strategy. Whatever model is adopted, improved management capacity and performance will be required from existing agencies, and there will need to be better coordination. It is important that the different agencies improve and strengthen their management capacity and develop management strategies and programs that reflect the objectives of the resource management system. However, no one agency or council can achieve all of the ends set out above.

Also, the ILAP approach, clearly implies that local government should adopt a much more integrated approach both within and between councils to achieve broadly agreed management ends. The facilitation model provides the best opportunity to produce a truly integrated approach to management of coastal resources in the study area.

6.2 Improving Capacity of existing Arrangements

Upgrading and strengthening the capacity of existing managers will include the following:

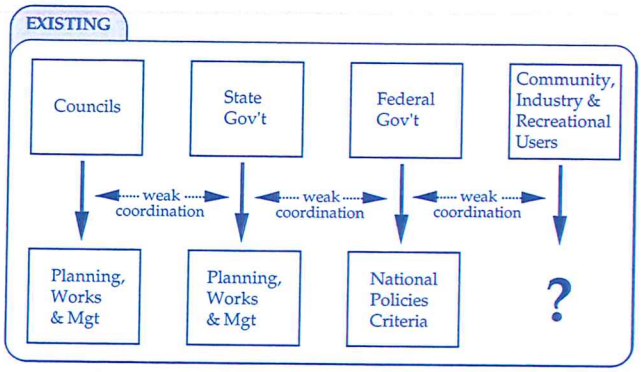
- integration of approvals by local government;
- use of better approval instruments and mechanisms;
- enforcement of existing regulations;
- establishing cost recovery for management;
- improving the information base for managers;
- implementing management policies and codes of practice; and
- improving co-ordination between existing agencies.

Table 2 EVALUATION OF DIFFERENT ADMINISTRATIVE STRUCTURE FOR IMPLEMENTATION

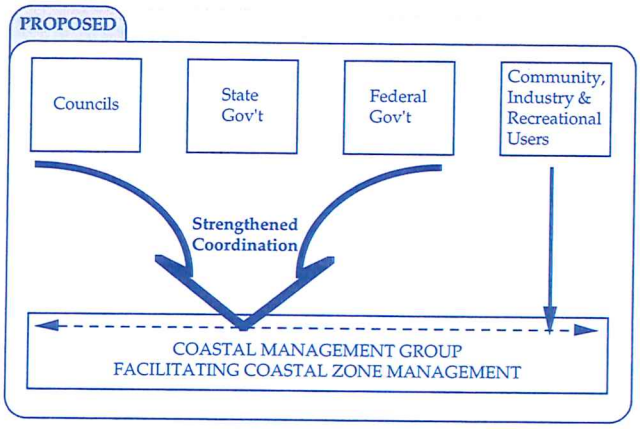
ADMINISTRATIVE STRUCTURE	IMPLEMENTATION MECHANISM	ADVANTAGES	DISADVANTAGES	EXAMPLES OF APPLICATION	LEVEL OF SUCCESS
1. DISCRETIONARY MODEL Implementation left to the discretion of individual agencies	Strategy, objectives etc. are advisory only. For use by individual agencies	Status quo - this is how it has been done in the past No additional time and cost	Poor coordination No integration Little involvement of non government sector Many management problems not addressed Duplication of effort but gaps in management	Current coastal management approach in many States	Strategic objectives rarely achieved. Poor outcomes from management effort
2. COMMITTEE MODEL Implementation by individual agencies - actions coordinated through a management committee and sub-committees	Strategy adopted in principle but no agreements entered into to implement	Overall strategic sense Eliminates some duplication and overlap Establishes communication between agencies Improved coordination	Relies on cooperation and goodwill Many areas of management ignored Difficult for outsiders No overall accountability Lack of political will Poor level of integration	Northern Tasmanian Regional Development Board Sullivan's Cove	Some individual successes Difficulties with coordination between governments and in effectively involving community and industry
3. CONTRACTUAL MODEL Individual agencies enter into legally biding agreements to abide by and implement strategy	Individual agencies retain their authority, but are legally committed to implementing parts of the strategy which come under their charter	Legal commitment High degree of certainty Clear 'rules' 'Technical' operation Best for publicly owned resources	Difficulty of agreeing Reduced flexibility Enforcement Management gaps Poor integration Difficult for councils	Great Barrier Reef Marine Park South West Tasmania Wellington Park	Generally high for agreed agendas Limited success where more than two or three agencies involved
4. FACILITATION MODEL Establishment of facilitation group to promote and facilitate good management practice	Separate non-statutory group with adequate resources to carry out tasks. Role is to facilitate implementation .	Cost effective Able to fill gaps Forum for sharing Effectively involves disparate interests Flexible Integrative	Relies on goodwill Requires resourcing Political mistrust Government agencies won't 'let go' Suspicion that it is a new bureaucracy	Trinity Inlet: Cairns HMCA Victorian coastal management committees	Successful in involving a wide set of interests Most cost effective Successful in gaining public support

Source: Based on Pitts (1991)

Figure 2 Existing and Proposed Management Arrangements



- strong vertical integration - individual government responsibilities and activities in the coastal zone
- weak horizontal integration - weak coordination between spheres of government, ad hoc coordination between agencies
- limited means of effective community, industry or recreational user involvement
- no focus on the coastal zone



- quality and capacity of improved and strengthened - individual responsibilities better coordinated
- improved and given real management capacity - overall management facilitated by the Coastal Management Group
- management focus on coastal issues
- coast is managed in an integrated way
- inter-agency coordination upgraded

Above all, management activities need to be better resourced. Many of these matters are currently being pursued and this will make a contribution to improved management.

6.3 Facilitating Better Management

In order to achieve better management outcomes there is a need to facilitate better management practices. There are many activities and management initiatives that are required to achieve the ends of the strategy but which are impossible to achieve through existing mechanisms and structures.

It is proposed that a well resourced, pro-active and competent facilitation capacity be established. This capacity should exist outside the direct control of any specific organisation or structure, but be fully accountable to all players with management responsibility in the study area (Figure 4).

The best way to achieve this is through a group which can provide a means for all stakeholders to participate in management, but which is able to operate independently of the statutory responsibilities of State and local government. The facilitation group must have the following capabilities:

- All stakeholders and participants should be informed and aware of issues, problems, management requirements, programs and initiatives;
- The group must be capable of furthering the ends of management in the study area by producing real and tangible results;
- It must provide a forum for sharing problems between stakeholders and for finding answers to those problems;
- It must be capable of developing and promoting common approaches to resource management;
- The group must be able to promote and achieve implementation of consistent solutions;
- It must provide a forum to share knowledge and resources and provide a basis for effective networking between the various stakeholders; and
- It must produce cost effective approaches to management.

The facilitation group will provide a focus for interaction and a consistent, effective and integrated approach to management. There are a number of instances in the study area where, even with the best of intentions, management effort under existing arrangements is ineffective. This results in waste of effort, time and resources and ultimately does not produce good management outcomes. Works to provide public access at Georges Bay and Bicheno, coastal protection works at

Bridport and Scamander, public information facilities at Triabunna, track improvement works north of Anson's Bay and protection works for Aboriginal middens at Musselroe Bay are all examples of management outcomes which would have benefited from having a resource to provide expert advice, additional assistance and ongoing management expertise.

What is proposed is a goal oriented coastal management group based on the *link pin* model (Figure 3).

6.4 Operation of the Coastal Management Group

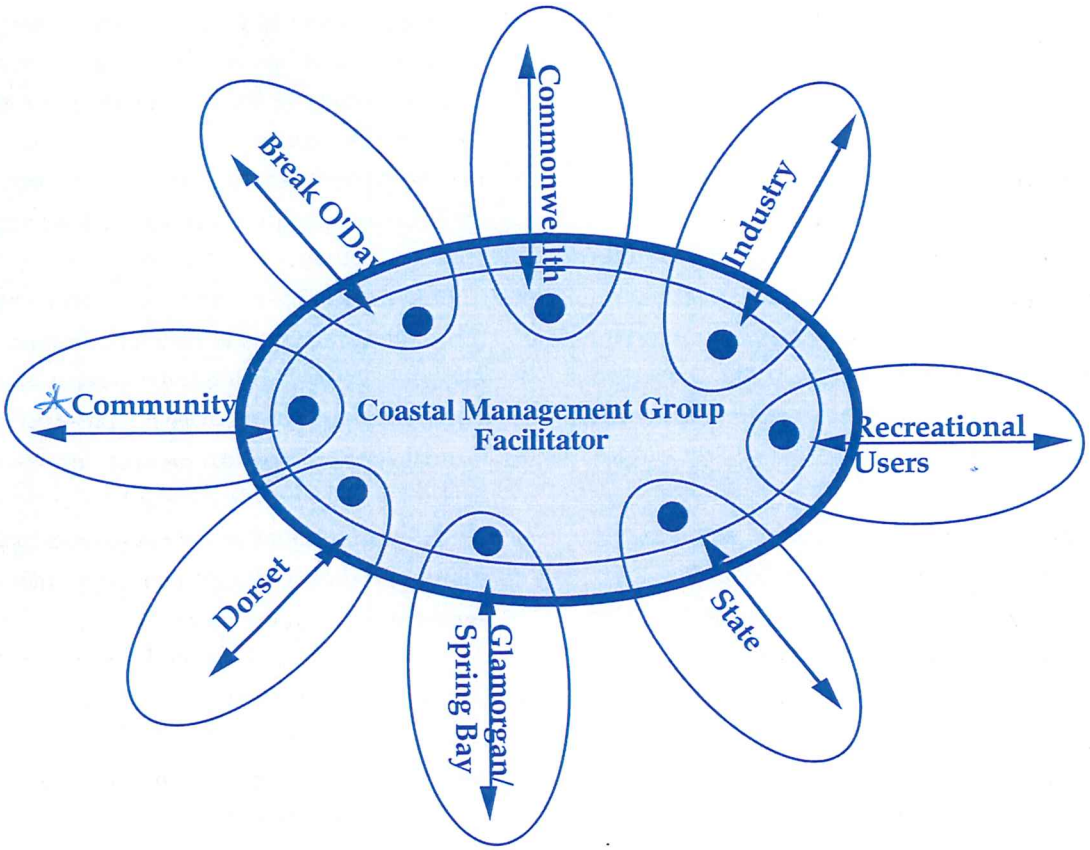
Each major area of stakeholder interest has a link pin as a member of the group. Major areas of stakeholder interest include:

- councils (3);
- State Government;
- Federal Government;
- industry;
- community interests; and
- recreational users.

The group is not 'representative' in the usual sense. The link pin is meant to provide a means of accessing the resources and capacities of the group through a common forum. It is a means to strengthen the capacities of existing management structures and to involve all stakeholders. Issues are dealt with by the group as a whole.

Individuals, sectional interest groups, or government agencies access the group through their link pin, whose

Figure 3 Coastal Management Group



Coastal Management Group provides a forum and focus to address coastal management issues, and a facilitation resource to achieve effective on ground management

main role is to provide that access rather than directly to represent particular interests.

Many management tasks can be effectively undertaken by the Coastal Management Group. These would include:

- assisting councils to prepare a regional land and water use strategy;
- identifying and assisting in the management of reserves;
- providing a forum for integrated assessment of applications for development;
- documenting and promoting codes of practice;
- preparing and overseeing the implementation of specific area management plans, particularly where there is community involvement;
- development of regional approaches to such matters as design of structures on public land, signage, development of a 'coastal image' for the region and management of environmental weeds;
- preparation of funding submissions;
- assisting and supporting self management by resource users;
- establishing a coastal data base and providing a monitoring program;
- development and implementation of an education/awareness/promotion program; and
- working with existing agencies to identify appropriate sites for and forms of development and promotion of these opportunities.

It would be inappropriate for the Coastal Management Group to have a statutory role. However, it could work with existing agencies to improve their capacity to carry out these roles - eg in development approvals.

The group would require a person whose role is to facilitate effective management of coastal resources. This would need to be a person with facilitation and resource management skills rather than specific professional skills such as planning or environmental science. They would also need a good knowledge of the existing system and of coastal management issues in the region.

6.5 Finding the Money

Adequate resourcing of a coastal management program is critical. Fully operational, it could require up to $500 000 per annum. There is little likelihood of this money being generated from outside sources, although some government funding may be available in the establishment stages. This means that the resources will have to be generated primarily from local sources. It is appropriate that the bulk of that income is generated from those who benefit from using the available resources.

If coastal resources are used effectively it will result in savings and benefits far in excess of $500 000. Revenue could be generated from a number of sources. The list below contains suggestions only.

- A specific *coastal management levy* on ratepayers (for example $20 per rateable property equals roughly $200 000 - $300 000). The levy would have to be clearly identified and assigned to specific programs.
- *Visitor charges*. Contributions could be obtained from visitors through commercial accommodation. This could be set at a low level - for example $1.00 per person per night - and be a means of recouping the management costs incurred by visitors. This could raise $100 000 - $200 000 per year.

- *Fees for Service*. State and Federal Governments require councils to implement their policies. The resources required could be a charge on those governments - up to $50 000 per annum.

- *User charges for specific facilities* - camping/day use areas, caravan parks, car parks, boat ramps etc., all require management expense. Users should contribute to this. It is estimated that this could generate up to $100 000 p.a.

- *Commercial franchises* - eg for wildlife tour operators, commercial facilities on public land.

- *Corporate support*, similar to Landcare sponsorship.

In addition Coastal Management Group members could provide in kind support with equipment, expertise, administrative backup and accommodation.

All of these sources of funding are being used in other parts of Australia. For example, Noosa Shire in Queensland charges a $50/year household levy for environmental management, accommodation providers pay a levy in a number of Queensland local areas, Sydney ratepayers pay an $80/year household levy for water improvement works, camping and parking charges are used throughout South Australia and Victoria to generate revenue for management, coastal management committees in Victoria can charge for access to specific sites such as at Phillip Island, and corporate sponsorship of coastal management activities occurs at Portland in Victoria and at Wollongong in NSW.

The key to success will be a means to apply the resources to get better management outcomes. If those who provide these means can see that they are getting something for their money then it is more likely that resource use charges will be accepted.