

Mechanisms for Avoiding or Managing Impacts on the World Heritage Area

5.1 Introduction

Protection of values associated with the Great Barrier Reef World Heritage Area is primarily a function of sound planning and management that is able:

- to tackle the sources as well as the symptoms of pressures arising from coastal urban development,
- to consider ecosystems, processes and inter-relationships, and cumulative effects
- to cross jurisdictional boundaries, and
- to integrate the various natural, cultural, social and economic dimensions of coastal zone management.

The purpose of this chapter is to provide a concise overview of government and non-government roles and activities as they relate to the planning and management of coastal urban development in Queensland. It does this by considering:

- the roles and activities of government agencies,
- the roles and activities of non-government organisations, and
- integrated approaches to management.

5.2 Roles and Activities of Government Agencies

(i) Commonwealth Government

Since this study was initiated there have been a number of changes to the Commonwealth's coastal program. *Coasts and Clean Seas*, a major component of the Natural Heritage

Trust, sets the direction for Commonwealth activities in the coastal and marine environment. *Coasts and Clean Seas* is designed to help tackle coastal and marine pollution problems, threats to marine biodiversity and habitat degradation, and to promote sustainable use of Australia's coastal and marine areas, including estuarine areas.

Funding of \$125 million will be contributed over five years commencing in 1996–97.

Programs supported through *Coasts and Clean Seas* include:

- Coastal and Marine Planning Program – a grants program targeted at Local and State Government to increase the coverage of and support for quality coastal and marine planning. Through quality planning CMPP aims to improve the management of potential and/or existing pressures causing negative environmental impacts, and reduce conflict between uses of coastal and marine resources.
- Clean Seas Program – this grants program aims to reduce pollution from and the impact of waste water, including stormwater, from coastal cities and towns, and to reduce pollution of coastal and marine environments from other sources such as maritime and industrial activities.
- Coastcare – this program will continue to provide resources to the community to deal with local coastal problems.
- *Coasts and Clean Seas* is complemented by other Natural Heritage Trust programs, particularly the National Rivercare Program, the National Landcare Program, the national Vegetation Initiative and the National Wetlands Program.

The Commonwealth Government's activities and responsibilities relevant to coastal urban development are summarised in table 5.1 below under the headings of international treaties and conventions, legislation, programs and activities, and direct management involvement.

The Commonwealth Government, through the Great Barrier Reef Marine Park Authority, is involved in a number of activities to address the impacts of coastal urban development on the values of the Great Barrier Reef World Heritage Area.

These activities include:

- the documentation of the values of the Great Barrier Reef World Heritage Area,
- the management of tourist activity within the Great Barrier Reef Marine Park,
- the funding of research by agencies such as GBRMPA, AIMS and the CRC Reef Research Centre,
- the monitoring of impacts,
- the preparation of guidelines (e.g. for marinas, moorings, use of wastewater, coastal tourism development, etc.),
- the provision of information to local government and other organisations,
- helping to achieve a more integrated approach to coastal zone management.

(ii) Queensland Government

The main Queensland government agencies with interests in coastal urban development are listed in table 5.2, together with an overview of principal legislation and main areas of responsibility.

Until recently, there has been no single Queensland government agency with an overall responsibility for coastal management. With the passing of the Coastal Protection and Management Act in 1995, this responsibility now rests with the Department of Environment. The Department is currently preparing a State coastal management plan and in the Great Barrier Reef World Heritage Area has commenced work on regional coastal management plans for:

- the Cardwell–Hinchinbrook Coast,
- the Wide Bay Coast,
- the Wet Tropical Coast, and
- the Curtis Coast.

Preparation of these plans is involving consultation with all key stakeholders and in particular local government. When completed, they will become subordinate legislation and there is a requirement under section 46 of the Act that local government planning schemes are to be consistent with regional coastal plans.

The regional coastal planning process is acting as an important catalyst to bring together State government agencies and local governments to discuss and resolve coastal management issues.

However, the consultation undertaken as part of this current project has revealed a lack of knowledge and understanding of individual State Government agency policies and practices that affect coastal planning and management. This was particularly evident at the Local Government level.

Collectively, Queensland government agencies are involved in a wide range of activities which are addressing the impacts of coastal urban development. These activities include:

- the preparation of State and regional coastal management plans,
- the preparation of regional plans for areas such as Cape York Peninsula, Far North Queensland and the Wide Bay Region,
- the approval of local government planning schemes,
- the licensing of environmentally relevant activities involving discharges to rivers and coastal waters,
- the general protection of environmental quality,
- the preparation of an Environmental Protection Policy for water quality,
- developing terms of reference for and overseeing impact assessment studies,
- developing environmental policies and guidelines (e.g. for ports, re-use of wastewaters, acid sulphate soils and stormwater management),
- coordinating and facilitating Landcare and Coastcare programs,
- undertaking State of Environment reporting (including State of the Coastal Zone) at a State-wide scale,
- the preparation of industrial land studies (e.g. at Gladstone and Townsville),
- the management of tourism in Queensland marine parks,
- the management of works below high water mark,
- monitoring population growth and trends in growth,
- monitoring water quality and other impacts, and
- assisting local governments in areas such as wastewater treatment.

Table 5.1 Summary of Commonwealth Government Interests Relevant to Coastal Urban Development

Role	Specific Responsibilities
International Treaties and Conventions	<ul style="list-style-type: none"> • Convention on Wetlands of International Importance (Ramsar Convention) • Convention for the Protection of the World Cultural and Natural Heritage • Japan–Australia Migratory Birds Agreement (JAMBA) • China–Australia Migratory Birds Agreement (CAMBA) • USSR–Australia Migratory Birds Agreement
Legislation	<ul style="list-style-type: none"> • <i>Australian Heritage Commission Act 1975</i> • <i>Endangered Species Protection Act 1992</i> • <i>Environment Protection (Impact of Proposals) Act 1974</i> • <i>Great Barrier Reef Marine Park Act 1975</i> • <i>Native Title Act 1993</i> • <i>World Heritage Properties Conservation Act 1983</i> • <i>Aboriginal and Torres Strait Islander Heritage Protection Act 1984</i>
Programs and Activities	<ul style="list-style-type: none"> • <i>Coasts and Clean Seas</i> <ul style="list-style-type: none"> –Coastal and Marine Planning Program –Clean Seas Program –Coastcare –Marine Species Protection Program –Introduced Marine Pests Program –Coastal Resource Atlas (for combating oil spills) –Fisheries Action Program –Oceans Policy development –Marine Protected Areas Program –Capacity Building –Monitoring Program –Australian Coastal Atlas (electronic interactive atlas) • Other Natural Heritage Trust programs <ul style="list-style-type: none"> –Bushcare: the National Vegetation Initiative –National Landcare Program –National Rivercare Program –Endangered Species Program –National Wetlands Program –Waterwatch Australia • Commonwealth Greenhouse Measures <ul style="list-style-type: none"> –Australian Greenhouse Office –Cities For Climate Protection –Commonwealth Greenhouse Challenge –Household Greenhouse Action Program –Energy Performance Codes and Standards for Housing and Commercial Buildings • Environmental Impact Assessment • State of the Marine Environment and State of the Environment Reporting • Collaborative Australian Protected Areas Dataset (CAPAD) • Environmental Resources Information Network (ERIN) • National Marine Information System • GBRMPA Research and Monitoring Program • CRC Reef Research

Strategies	<ul style="list-style-type: none"> • Cape York Peninsula Land Use Strategy (jointly with Queensland Government) • National Water Quality Management Strategy • Strategic Plan for the Great Barrier Reef World Heritage Area
Direct Management Involvement	<ul style="list-style-type: none"> • Great Barrier Reef Region • Great Barrier Reef World Heritage Area • Commonwealth properties (e.g. Military Reserves and facilities)

(iii) Local Governments

Local governments in Queensland are responsible for:

- the planning and management of urban development on freehold and leasehold lands,
- the provision and operation of infrastructure for the collection, treatment and disposal of wastewaters from urban areas,
- the disposal of solid wastes,
- recreational use of foreshores, and
- elements of water quality management and beach protection by way of delegated powers under the Environmental Protection Act and the Beach Protection Act.

Local governments therefore have a crucial role to play in ensuring that coastal urban development does not place the values of the Great Barrier Reef World Heritage Area at risk. As part of this project, special attention has been given to activities being undertaken by local government in relation to planning, management and impact minimisation. A summary of some of these key activities is provided below.

In so far as planning is concerned, most of the local governments adjacent to the World Heritage Area are in the process of preparing new planning schemes. Typically, these new planning schemes:

- have a greater environmental focus than earlier schemes and are based much more on the performance-based approach to planning,

- aim to consolidate existing areas of coastal urban development rather than open up new areas of the coast,
- generally aim to limit and better manage rural residential development in coastal areas,
- contain references to ESD and the protection of coastal values in strategic plan aims and objectives,
- incorporate provisions for beach protection and coastal buffer zones, and
- are tending to use Development Control Plans in innovative ways to address issues associated with coastal urban development.

Some typical examples of ways in which planning schemes are being used to address the impacts of coastal urban development are provided in table 5.3.

While there are some obvious advances in the way that planning schemes are addressing potential impacts on coastal resource values, there is also evidence that planning studies being undertaken as part of planning scheme reviews are not considering coastal values and issues in as much depth as they probably should. It is common for planning studies to focus considerable attention on terrestrial resources and values without attempting to document the values of estuarine and marine resources that could potentially be affected by coastal urban development.

The investigation of local government planning schemes and their implementation has also revealed that the ESD principles embodied in planning scheme aims and objectives are rarely

translated into plan implementation in any structured or systematic way. This is not meant to be a criticism of local government. It merely reflects the difficulty of delivering ESD principles at the local level and identifies an area where local government would benefit from support and assistance.

In so far as the collection, treatment and disposal of wastewaters from urban areas is concerned, the investigations undertaken as part of this project have revealed an awareness across local government of the need to improve the standards of sewage treatment, to look at alternative methods of waste disposal and to address issues of stormwater.

A number of local governments are upgrading sewerage treatment works, others are investigating options for land-based disposal of effluent and some are preparing and implementing broad wastewater management strategies. The main issues raised by local government during the course of this study were:

- the need for more information on alternative methods of treated wastewater disposal,
- the need for more information on the use of artificial wetlands for removing nutrients from stormwater run-off,
- the need for guidelines which have been specifically developed for climatic conditions found in north and far north Queensland, and
- the need for financial assistance to upgrade wastewater treatment systems to a standard that is compatible with the World Heritage status of the receiving waters.

There is also evidence of local governments taking a more pro-active approach to the management of foreshore reserves under their control. This is largely being done by way of management plans which are being prepared in consultation with local communities. Examples include:

- the Management Plan for the Nelly Bay Habitat Reserve and Foreshore Management Plans prepared by the Townsville City Council, and
- the Esplanade management plan prepared by the Cairns City Council.

While there are quite a few examples of excellent initiatives by individual local governments, there is little evidence of any consistent or coordinated approach across coastal local governments as a whole. It is evident from discussions held during the course of this project that:

- by and large, local governments do not perceive coastal management as being a core business function,
- planners and engineers in coastal local governments are under heavy workloads and unable to devote the time that they would like to coastal planning issues,
- most local governments do not have access to specialist professional advice on coastal matters,
- there are few opportunities for local government staff to meet together and with Queensland government agencies to discuss coastal planning issues and experiences, and
- most local governments are unclear about the various legislations, jurisdictions, responsibilities and policies which currently apply to coastal planning and management in Queensland.

(iv) Government-owned Corporations

The major government-owned corporations which are of relevance to this study are the Ports Corporation of Queensland and the Port Authorities at Cairns, Townsville, Mackay and Gladstone. They all operate major port facilities.

Over the past decade, there has been a major shift in environmental awareness amongst Port Authorities and major commitments of resources towards best practice environmental management. This is reflected in:

- the environmental inputs that are being integrated into the preparation of development strategies and land use plans,
- greatly increased levels of baseline environmental monitoring,
- participation in the development of the Environmental Policy for Queensland Ports, and
- the preparation of environmental management systems.

Table 5.2 Summary of Queensland Government Agencies and Responsibilities

Agency	Principal Legislation	Key Responsibilities
Dept of Local Government and Planning	<ul style="list-style-type: none"> Local Government Act Local Government (Planning and Environment) Act Integrated Resort Development Act Integrated Planning Act 	<ul style="list-style-type: none"> State Planning Policies Regional Planning Approval of Town Planning Schemes Assistance with water supply and sewerage services
Dept of Environment	<ul style="list-style-type: none"> Coastal Protection and Management Act Environmental Protection Act Nature Conservation Act Marine Parks Act Beach Protection Act State Development and Public Works Organization Act (s. 29) 	<ul style="list-style-type: none"> Protection and management of the coast Protection of water quality Licensing of environmentally relevant activities Protection of native flora and fauna Management of protected areas Planning and management of Queensland marine parks Management of erosion prone areas Approval of structures below high water mark Impact assessment Preparation of Environmental Protection Policies Education and interpretation
Dept of Natural Resources	<ul style="list-style-type: none"> Land Act Water Resources Act 	<ul style="list-style-type: none"> Land and seabed tenures Integrated catchment management Landcare River management
Dept of Transport and Main Roads	<ul style="list-style-type: none"> Transport Infrastructure Act Transport Operations (Marine Pollution) Act Transport Planning and Co-ordination Act 	<ul style="list-style-type: none"> Government-owned ports and boat harbours Integrated transport planning Operation of vessels
Dept of Primary Industries, Fisheries and Forestry	<ul style="list-style-type: none"> Fisheries Act 	<ul style="list-style-type: none"> Protection of fisheries habitat Protection of marine plants
Dept of Economic Development and Trade		<ul style="list-style-type: none"> Regional industrial development Planning for and facilitation of major projects
Dept of Premier and Cabinet	<ul style="list-style-type: none"> Aboriginal Land Act 	<ul style="list-style-type: none"> Native Title
Dept of Tourism, Small Business and Industry		<ul style="list-style-type: none"> State Tourism Strategy State Ecotourism Strategy Regional tourism development

Increasingly, Port Authorities are working together with local governments and Queensland government agencies to address issues associated with coastal urban development. Examples include:

- the involvement of the Cairns Port Authority in the Trinity Inlet Management Program,
- the involvement of the Townsville Port Authority in a stormwater discharge study,
- the involvement of the Mackay Port Authority in the preparation of a management plan for conservation areas adjacent to the port, and
- the involvement of the Gladstone Port Authority in the Curtis Coast Resources Study.

Similar changes can also be observed in the operations of providers (both public and private) of utilities such as electricity, telecommunications and gas.

5.3 Roles and Activities of Non-government Organisations

There are several non-government organisations which are increasingly becoming more involved in managing the impacts of coastal urban development of the values of the Great Barrier Reef World Heritage Area. These organisations include:

- urban Landcare groups which are active in Cairns and Townsville,
- the marine tourism industry which has an active involvement in:
 - the Reef Tourism 2005 project,
 - the monitoring of impacts on reefs,
 - the direct management of areas such as the Low Isles,
 - industry training, and
 - local conservation groups which play an important role in raising community awareness.

There is welcome evidence of a trend towards the development of partnerships between government and non-government agencies. This is having the effect of raising community awareness and providing greater resources for activities such as monitoring.

5.4 Integrated Approaches to Management

The Commonwealth Coastal Zone Inquiry Final Report states that the two major problems inhibiting sustainable use of the coastal zone are:

- fragmented management arrangements based on single issues or sectors, and
- the tyranny of small decisions, whereby over time a number of decisions that in themselves are not significant accumulate and interact to result in a significant impact on the coastal zone.

While the investigations undertaken as part of this study generally confirm this view, they have also shown that there are some good examples of integrated coastal planning in operation along the Queensland coastline adjacent to the Great Barrier Reef World Heritage Area. Several of these examples are listed in table 5.4

There is certainly a case to suggest that greater levels of integration across sectors and agencies is required. What this preliminary study has shown, is that such integration is feasible and achievable provided that:

- the will exists,
- there is a likelihood of improved outcomes,
- resources are provided, and
- there are people to drive the process.

Of particular interest to local government is the expected passage through Parliament of the Integrated Planning Act in early 1998. The purpose of this new planning legislation is to achieve ecological sustainability in the following three ways:

- coordinating and integrating local, regional and State level planning;
- managing the process by which development occurs; and
- managing the effects of development on the environment (including the use of premises).

Amongst other things, the new legislation is intended:

- to provide a more efficient and accountable integrated development assessment system (IDAS),

- to provide greater flexibility in the preparation of planning schemes, and
- to improve opportunities for public consultation.

The new legislation appears to offer important opportunities for local governments to better plan and manage coastal urban development. There is, however, a major learning process required to determine how the new legislation and its associated planning instruments can best be utilised.

5.5 Conclusions

The major conclusions that can be drawn from this overview of governance and management are that:

- despite some excellent initiatives, there is no overall, consistent and coordinated approach to the management of impacts arising from coastal urban development adjacent to the Great Barrier Reef World Heritage Area,
- local governments do not perceive coastal management as being a core business function,
- planning studies that are undertaken as part of planning scheme reviews do not consider coastal values and issues in as much depth as they probably should,
- nearly all coastal local governments adjacent to the World Heritage Area are in various stages of planning scheme reviews,
- the new generation of planning schemes that are emerging have a much greater environmental focus (albeit mainly land-based) and much more of a performance-based approach to planning,
- references to ESD and the protection of coastal values are relatively common in planning scheme aims and objectives, but are rarely translated into plan implementation in any structured or systematic way,
- there is a need for environmental management guidelines (e.g. for treated wastewater disposal and stormwater management) which are specifically tailored for local climatic and environmental conditions,
- there are some good examples of the use of Development Control Plans to address coastal management issues,
- planners in coastal local governments are under heavy workloads and unable to devote the time that they would like to coastal planning issues,
- most local governments do not have access to specialist professional advice on coastal matters,
- most local governments are unclear about the various legislations, jurisdictions, responsibilities and policies which currently apply to coastal planning and management in Queensland,
- there are few opportunities for local government staff to meet together and with Commonwealth and State agency staff to discuss common issues and experiences,
- it is possible to develop successful integrated and partnership approaches to issues arising from coastal urban development provided that the will exists, there is a likelihood of improved outcomes, resources are provided and there are people to drive the process, and
- the issue of coastal urban development and the value of the Great Barrier Reef World Heritage Area is an area of considerable Commonwealth government interest and responsibility – this includes the responsibility that the Commonwealth has to monitor the condition of the World Heritage property as required under the World Heritage Convention.

Table 5.3 Examples of Planning Scheme Initiatives

Component of Planning Scheme	Examples of Approaches to Address Impacts of Urban Development on Coastal Resources and Values	Local Government
Planning Scheme Aims and Objectives	'To provide for and facilitate the protection, management and rehabilitation of the coast, its ecosystems, land forms, natural processes and intrinsic and heritage values.'	Cook Shire
	'To ensure the protection and proper management of the Shire's coastline and encourage environmental responsibility in the use of the coastal area.'	Burnett Shire
General Scheme Provisions	'In particular, Council shall seek to ensure that draining, filling or excavation does not cause changes to groundwater and surface water regimes which may impact on wetland habitats, waters of the Great Barrier Reef, riverine systems and World Heritage Areas'.	Cook Shire
	'The preferred use of lands in Erosion Prone Areas is that it will be left in a natural state or used for low intensity activity...the only uses permissible will be in accordance with the Beach Protection Authority requirements for the protection of coastal areas.'	Thuringowa City
Development Control Plans	The Mission Beach Coastal Area Development Control Plan	Johnstone Shire and Cardwell Shire
	The Development Control Plan for the Cairns Central Swamp Area	Cairns City
	The Development Control Plan for the Mon Repos Beach Area	Burnett Shire
Local Planning Policies	Local Planning Policy for the Provision of Foreshore Parks and Esplanades	Burnett Shire
	Local Planning Policy for Beachfront and Hinterland Development – Coastal Land Use Study	Thuringowa City
Performance Criteria	'Development on coastal headlands and foreshores should not be apparent from beaches, offshore islands or at any point along the coast at the water's edge.'	Johnstone Shire and Cardwell Shire
	'In areas of potentially acid sulphate soils, proponents of development will be required to document the extent and severity of the problem and develop a strategy for either management or treatment or both'.	Cardwell Shire

Table 5.4 Examples of Integrated Approaches

Scale	Nature of Management Instrument	Principal Partners
State-wide	Coastal Memorandum of Understanding (Coastal MOU)	Commonwealth Government Queensland Government Local Government Association
	Integration of ICM initiatives into local government planning schemes	Dept of Local Government and Planning Local Government Association Dept of Natural Resources
	State Coastal Management Plan	Dept of Environment Coastal local governments Community groups Industry Other Queensland government departments GBRMPA
Regional	25 Year Strategic Plan for the Great Barrier Reef World Heritage Area	Commonwealth Government Queensland Government Coastal local governments Industry
	Joint preparation of the Wide Bay Coast Regional Management Plan and the Wide Bay 2020 Regional Planning Study	Dept of Local Government and Planning Dept of Environment Community groups Industry Other Queensland government agencies
	Curtis Coast Resources Study	Dept of Environment Gladstone Port Authority Gladstone City Council Calliope Shire Council
	Reef Tourism 2005 – A Strategy for the Sustainable Development of the Far North Queensland Marine Tourism Industry	Marine Tourism Industry GBRMPA Dept of Environment\Local Governments CRC Reef Research Centre FNQ Regional Development Network
	Regional Coastal Management Plans	Dept of Environment Other State government agencies GBRMPA Community groups Industry Port Authorities

Local	<p>Trinity Inlet Management Program</p> <p>Development Control Plan for the Mission Beach Coastal Area</p> <p>Management Plan for Conservation Areas at the Port of Mackay</p> <p>Broadsound and Sarina Coastal and State Lands Management Strategy</p>	<p>Cairns City Council Cairns Port Authority Dept of Environment Dept of Primary Industries Dept of Transport</p> <p>Johnstone Shire Cardwell Shire Community groups</p> <p>Mackay Port Authority Mackay City Council Dept of Natural Resources Dept of Environment Local conservation groups</p> <p>Dept of Natural Resources Dept of Environment Sarina Shire Broadsound Shire Traditional owners Local community groups</p>
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