

Coastal Development Adjacent to the World Heritage Area

3.1 Introduction

The purpose of this chapter is to provide a brief overview of:

- current patterns of coastal urban development, and
- development trends and pressures.

This is achieved by way of regional overviews for each coastal management region which lead to a series of conclusions about the nature and location of urban use pressures which could potentially have impacts on the values of the Great Barrier Reef World Heritage Area.

3.2 Regional Overview

The coastal local governments adjacent to the World Heritage Areas contain:

- an estimated 1995 population of 538 760 (15% of the Queensland population),
- all but two of Queensland's major ports,
- the major areas of heavy industry in Queensland,
- approximately 16 000 hotel/motel rooms (some 37% of the Queensland total), and
- approximately 39 000 registered vessels (some 32% of the Queensland total).

Coastal centres adjacent to the World Heritage Area are amongst the fastest growing areas in Queensland. As a recent report on population and housing trends in Queensland notes (Queensland Department of Local Government and Planning 1996b):

One of the factors contributing to the State's growth pattern has been the rapid development of coastal centres associated with perceived

attractive lifestyles (e.g. the Gold and Sunshine Coasts and coastal areas in the Wide Bay-Burnett region), and the growth of areas focusing on tourism and recreation (e.g. Far North Queensland). It is believed that environmental and/or lifestyle factors are potentially as important as economic considerations in any decision to move into non-metropolitan regional centres.

An overview of the scale and character of existing urban development, together with notes on development trends and pressures, is presented in the balance of this section for each of the coastal management regions relevant to this project. This information is presented under the following headings:

- local government areas included,
- extent of region,
- population of local government areas,
- major population centres,
- smaller coastal settlements,
- extent of rural residential development,
- extent of industrial development,
- extent of port and harbour development,
- extent of tourist development, and development trends and pressures.

Maps of the coastline for each coastal region are located in appendix 4. These maps show local government boundaries and the principal areas of coastal urban development.

3.3 Conclusions

The analysis of coastal development trends and pressures is summarised in table 3.1. On a regional basis, taking all pressures into account, it is the Capricorn, Wide Bay and Wet Tropical Coast Management Regions which appear likely to come under the greatest urban development pressure over the next 10 years or so.

It has also been possible to identify geographical 'hot spots' where there are particular existing or emerging coastal management issues associated with coastal urban development. These areas and the nature of the issues are summarised in table 3.2.

Wide Bay Coast Overview (northern section only)

Local Government Areas	Burnett Shire and Miriam Vale Shire
Extent of Region (northern section)	From Woodgate in the south to Rodds Bay in the north – a distance of approximately 290 km
Population of Local Government Areas	1986: 14 488 1991: 17 480 1996: 23 939 % change 1986–1996 = 65% est. 2011: 41 410 % change 1996–2011 = 73%
Major Population Centres	Bargara
Smaller Coastal Settlements	Elliott Heads, Innes Park, Burnett Heads, Moore Park, Agnes Water, Seventeen Seventy and Turkey Beach
Rural Residential Development	Extensive areas of unoccupied rural residential development in Miriam Vale Shire
Industrial Development	There is no major industrial development along this section of coastline. There is a sugar mill at Bundaberg, with associated sugar refining and alcohol distilling industries.
Port and Harbour Development	The port of Bundaberg is located near the mouth of the Burnett River (but south of the World Heritage area). The principal commodities handled are raw sugar and petroleum products.
Tourist Development	The main tourist accommodation facilities are located in the Bargara area and at Seventeen Seventy/ Agnes Water. There are no major resort complexes, although there is a small tourist resort on Lady Elliot Island. Charter boats operate from Seventeen Seventy.
Development Trends and Pressures	<ul style="list-style-type: none">• An area where rapid population growth is expected over the next decade.• Possible marina and associated tourist development at Burnett Heads.• Continued urban expansion along the coast between Burnett Heads and Elliott Heads.• Urban expansion at Moore Park.• Settlement of large numbers of vacant allotments around Seventeen Seventy/ Agnes Water and gradual 'urbanisation' of this area.• Some expansion of facilities at the port of Bundaberg.

Curtis Coast Overview

Local Government Areas	Calliope Shire and Gladstone City
Extent of Region	From Rodds Bay in the south to the mouth of the Fitzroy River in the north – a distance of approximately 120 km
Population of Local Government Areas	1986: 33 293 1991: 36 116 1996: 40 189 % change 1986–1996 = 20.7% est. 2011: 49 740 % change 1996–2011 = 23.8%
Major Population Centres	Gladstone and Tannum Sands
Smaller Coastal Settlements	–
Rural Residential Development	Relatively limited in coastal areas
Industrial Development	Major industries in Gladstone area between Yarwun and Boyne Island. These industries include an alumina refinery, an aluminium smelter, chemical plants, a cement clinker plant and a major coal fired power station.
Port and Harbour Development	Gladstone is one of Queensland’s major ports – the principal commodities handled are bauxite, alumina, coal, caustic soda and petroleum products. Associated with the port is a large marina and a range of marine service industries.
Tourist Development	The major tourist accommodation centre is Gladstone. There is a resort on Heron Island and there are several camping grounds on national park islands of the Capricorn–Bunker groups. Charter boats operate from Gladstone to the Capricorn–Bunker groups and the Swain Reefs.
Development Trends and Pressures	<ul style="list-style-type: none">• Proposals for major industrial growth at Gladstone – possible oil shale mining processing plant, steel works, expansion of chemical plants, additional alumina refinery and nickel ore processing plant.• Plans for major port expansion.• Proposals for resort development on Curtis Island.

Capricorn Coast Overview

Local Government Areas	Fitzroy Shire, Livingstone Shire and Broadsound Shire
Extent of Region	From the mouth of the Fitzroy River in the south to Cape Palmerston National Park in the north – a distance of approximately 760 km.
Population of Local Government Areas	1986: 30 453 1991: 34 894 1996: 40 508 % change 1986–1996 = 33% est. 2011: 57 060 % change 1996–2011 = 40.9%
Major Population Centres	Emu Park and Yeppoon
Smaller Coastal Settlements	Broadmount, Keppel Sands, Byfield, St Lawrence, Carmila Beach and Clairview
Rural Residential Development	Relatively limited in coastal areas
Industrial Development	Mainly limited to marine service industries at locations such as Rosslyn Bay.
Port and Harbour Development	There is a small port at Port Alma at the mouth of the Fitzroy River. The principal commodities handled here are salt, petroleum products and fertiliser.
Tourist Development	The major tourist accommodation centres are located at Yeppoon and Emu Park. There are resorts on the coast north of Yeppoon and on Great Keppel Island. Charter boats operate from Rosslyn Bay to the Capricorn–Bunker groups and the Swain Reefs.
Development trends and Pressures	<ul style="list-style-type: none">• Major coastal population growth is expected to continue in the Yeppoon–Emu Park area in Livingstone Shire.• There are proposals for development at Clairview.

Whitsunday Coast Overview

Local Government Areas	Sarina Shire, Mackay City and Whitsunday Shire
Extent of Region	From Cape Palmerston National Park in the south to Edgumbe Bay in the north – a distance of approximately 510 km
Population of Local Government Areas	1986: 76 128 1991: 83 131 1996: 94 658 % change 1986–1996 = 24.3% est. 2011: 116 360 % change 1996–2011 = 22.9%
Major Population Centres	Mackay, Sarina, Cannonvale and Airlie Beach
Smaller Coastal Settlements	Armstrong Beach, Sarina Beach, Grasstree, Half Tide, Shoal Point, Seaforth, Midge Point, Shute Harbour and Earlando
Rural Residential Development	Main areas are around Midge Point.
Industrial Development	Several sugar mills. Ethanol distillery at Sarina. Marine service industries at Airlie Beach and Shute Harbour.
Port and Harbour Development	Coal export port at Hay Point. Port facility at Mackay – principal commodities handled are raw sugar, refined sugar, fertiliser and petroleum products. A new small boat harbour is under construction at the port. Marinas/boat harbours for small craft are provided at Mackay, Shute Harbour, Airlie Beach, Hamilton Island.
Tourist Development	The islands of the Whitsunday, Lindeman and Cumberland groups are one of Queensland's premier tourist destinations. The island resorts, camping areas and reefs are serviced mainly from Shute Harbour, Airlie Beach and Mackay. The Whitsunday Islands are a focal point for charter boats, pleasure cruises and 'bare-boating'. Mainland accommodation is concentrated at Airlie Beach, Laguna Quays, Seaforth and Mackay.
Development trends are and Pressures	<ul style="list-style-type: none">• An area where high levels of coastal development pressure expected over the next decade.• Expansion of port and coal loading facilities at Hay Point.• Major residential expansion at Midge Point.• Continued urban expansion and tourist development at Airlie Beach and Cannonvale.• Expansion of beach front settlements around Sarina.• Resort proposals at Woodwark Bay, Keswick Island and St Bees Island.• Proposed residential/resort development at Clarks Cove.

Dry Tropical Coast Overview

Local Government Areas	Bowen Shire, Burdekin Shire, Townsville City and Thuringowa City
Extent of Region	From Edgumbe Bay in the south to Crystal Creek in the north – a distance of approximately 420 km
Population of Local Government Areas	1986: 143 894 1991: 154 316 1996: 164 404 % change 1986–1996 = 14.2% est. 2011: 209 510 % change 1996–2011 = 27.4%
Major Population Centres	Bowen, Townsville, Ayr and Home Hill
Smaller Coastal Settlements	Alva Beach, Magnetic Island, Saunders Beach, Bushland Beach, Balgal, Cungulla
Rural Residential Development	Extensive areas of rural residential development occur in Thuringowa City along the coast north of Townsville.
Industrial Development	Development of major new zinc refinery south of Townsville. Nickel refinery at Yabulu. Extensive marine service industries. Sugar mills. Peak load power station.
Port and Harbour Development	Townsville is one of Queensland's major ports – principal commodities handled are sugar, molasses, nickel ore, lead products, other mineral concentrates, petroleum products and general cargo. The port includes a marina, small craft facilities and a full range of marine service industries. There is a small port and marina facilities at Bowen. A coal export port is located at Abbot Point.
Tourist Development	Tourist facilities in this region are mainly found at Townsville. It is a centre of tourist accommodation and an important embarkation point to offshore reefs and Magnetic Island. Bowen is a tourist destination with a more localised catchment.
Development trends and Pressures	<ul style="list-style-type: none">• New port access and possible port-related future industrial development.• Urban development along the coastline north of Townsville.• Port expansion and reclamation at Townsville.• Continued development of smaller coastal communities.• Possible base load power station.• Major industrial site (3000 ha) has been designated at Woodstock, south-west of Townsville.

Cardwell–Hinchinbrook Coast Overview

Local Government Areas	Hinchinbrook Shire and Cardwell Shire
Extent of Region	From Crystal Creek in the south to the mouth of Wongaling Creek in the north – a distance of approximately 150 km
Population of Local Government Areas	1986: 23 362 1991: 23 853 1996: 24 610 % change 1986–1996 = 5.3% est. 2011: 25 690 % change 1996–2011 = 4.3%
Major Population Centres	–
Smaller Coastal Settlements	Forrest Beach, Halifax, Lucinda, Cardwell, Tully Heads, Hull Heads, Palm Island, Mission Beach (part)
Rural Residential Development	Minor amounts
Industrial Development	Sugar mills.
Port and Harbour Development	Bulk sugar terminal and loading facility at Lucinda.
Tourist Development	The major focus of mainland tourist accommodation and facilities is at Mission Beach. Other tourist facilities are located at Cardwell, Hull Heads and Halifax. Access to Hinchinbrook Island and the Hinchinbrook Channel is available at Cardwell. There are resorts on Dunk Island, Bedarra Island and Orpheus Island.
Development trends and Pressures	<ul style="list-style-type: none">• Proposal for development of tourist accommodation and marina at Dungeness.• Development of integrated resort at Oyster Point (Cardwell).• Increased residential and tourist development at Forrest Beach.• Continued urban expansion and tourist development at Mission Beach.

Wet Tropical Coast Overview

Local Government Areas	Johnstone Shire, Cairns City and Douglas Shire
Extent of Region	From the mouth of Wongaling Creek in the south to the mouth of the Bloomfield River in the north – a distance of approximately 300 km
Population of Local Government Areas	1986: 103 171 1991: 118 542 1996: 142 867 % change 1986–1996 = 38.4% est. 2011: 192 220 % change 1996–2011 = 34.5%
Major Population Centres	Cairns, Innisfail, Mossman, Port Douglas, Mission Beach (part)
Smaller Coastal Settlements	Bingil Bay, Kurrimine Beach, Flying Fish Point, Bramston Beach, Yarrabah, Ellis Beach, Oak Beach, Cooya Beach, Wonga, Daintree, Cow Bay, Cape Tribulation, Ayton
Rural Residential Development	There are extensive areas of vacant subdivided land north of the Daintree River.
Industrial Development	Sugar Mills. Ship Building and repair services at Cairns. A full range of marine service industries at Cairns.
Port and Harbour Development	Cairns is one of Queensland's major ports – principal commodities handled are sugar, molasses, fertiliser and petroleum products. There is a naval base at Cairns. It is a major trawler base and a major base for tourist and charter vessels. There is a bulk sugar port at Mourilyan and mooring facilities for fishing and tourist vessels at Port Douglas and Innisfail.
Tourist Development	This section of the coastline adjacent to the World Heritage Area has the greatest concentration of tourist facilities. Key areas of tourist accommodation/facilities are found at Cairns, Mission Beach, Palm Cove and Port Douglas. There are resorts on Fitzroy and Green Islands. This region is a major embarkation point for trips to reefs and islands and fishing charters.
Development trends and Pressures	<ul style="list-style-type: none"> • Continued residential and tourism development along beaches north of Cairns. • Resort proposals at Cape Tribulation, Ella Bay and Garners Beach. • Major residential/resort development proposal at East Trinity at Cairns. • Cairns Port Authority City Port proposal. • Proposal for extension of electricity services north of the Daintree River. • Continued urban expansion and tourist development at Mission Beach and other smaller coastal settlements.

Cape York Peninsula Coast Overview

Local Government Areas	Cook Shire
Extent of Region	From the mouth of the Bloomfield River in the south to Cape York in the north – a distance of approximately 900 km
Population of Local Government Areas	1986: 6 996 1991: 7 489 1996: 8 020 % change 1986–1996 = 14.6% est. 2011: 8 090 % change 1996–2011 = 0.9%
Major Population Centres	Cooktown
Smaller Coastal Settlements	Hope Vale, Port Stewart, Lockhart River, Portland Roads and Captain Billy Landing
Rural Residential Development	None of any significance
Industrial Development	No major coastal industries.
Port and Harbour Development	Silica sand export facility at Cape Flattery. Community port at Quintell Beach. Small craft facilities in the Endeavour River at Cooktown. Trawler anchorage at Portland Roads.
Tourist Development	Main centre of tourist activity and accommodation is at Cooktown. Resorts at Lizard Island and at Cape York.
Development trends and Pressures	<ul style="list-style-type: none">• Sealing of road to Cooktown – will lead to increased tourist activity.• Dredging of the mouth of the Endeavour River – will make Cooktown more accessible for tourist and charter vessels.• The Torres Strait Region does not have any urban development on the coastline adjacent to the Great Barrier Reef World Heritage Area.

Table 3.1 Overview of Development Pressures

Relative Magnitude of Pressures in Each Coastal Management Region								
Source of Urban Development Pressure	Wide Bay	Curtis	Capricorn	Whitsunday	Dry Tropical	Cardwell-Hinchinbrook	Wet Tropical	Cape York Peninsula
Expansion of major residential nodes	Moderate-High	Moderate	High	Moderate	Moderate	Low	High	Moderate
Expansion of smaller coastal communities	High	Low	Moderate-High	Moderate	Moderate-High	Moderate	High	Low-Moderate
Rural residential development and/or population growth	High	Low-Moderate	Low	High	Moderate	Low	Moderate	Low
Development of major industries	Low	High	Low	Low	High	Low	Low	Low
Port and harbour expansion	Low-Moderate	High	Low	Moderate	High	Low	Moderate-High	Low-Moderate
Growth and development of tourist facilities	Moderate	Moderate	Moderate-High	High	Moderate	Moderate-High	High	Moderate

Table 3.2 Geographical 'Hots Spots'

Location	Nature of Issues
Cooktown	<ul style="list-style-type: none">• increased accessibility arising from sealing of road from Cairns• improvement of harbour due to dredging of river mouth
North of the Daintree River	<ul style="list-style-type: none">• increased occupancy of vacant allotments, particularly if power supply provided
Port Douglas	<ul style="list-style-type: none">• continued tourist development and increased pressures on adjacent reefs• proposed airstrip
Beaches north of Cairns	<ul style="list-style-type: none">• continued residential and tourist development and effects on wetlands, visual amenity, water quality and quality of life• beach erosion
East Trinity	<ul style="list-style-type: none">• environmental and visual effects of proposed major residential and tourist development• effects on Yarrabah community
Cairns	<ul style="list-style-type: none">• increased tourist traffic to reefs and islands due to increased tourist development – environmental and social effects• latent capacity of commercial tourism operations based at Cairns• urban stormwater management and sewage plant outfalls
Mission Beach	<ul style="list-style-type: none">• continued residential and tourist development and effects on visual amenity, water quality and quality of life• provision of sewerage treatment works• increased pressure on the Family Islands and displacement of traditional users
Cardwell	<ul style="list-style-type: none">• managing impacts and flow-on effects of resort development• increasing visitor use pressures on Hinchinbrook Island, Goold Island and Hinchinbrook Channel
Beaches north of Townsville	<ul style="list-style-type: none">• continued residential and rural residential development• effects on water quality, visual amenity and quality of life• provision of services
Townsville	<ul style="list-style-type: none">• environmental management of heavy industries• port and industrial area expansion• extent of development and services on Magnetic Island• beach erosion• urban stormwater management and sewage treatment plant outfalls
South of Townsville	<ul style="list-style-type: none">• management of coastal settlements at Phantom Springs and Cungulla
Whitsunday area	<ul style="list-style-type: none">• continued residential and rural residential development• resort proposals at Woodwark Bay and Clarks Cove• sewage treatment plant outfalls• increasing visitor use pressures on Whitsunday Islands and fringing reefs• latent capacity of commercial tourism operators based in the Whitsunday area

Midge Point	<ul style="list-style-type: none"> • servicing of rural residential allotments • management of future population growth
Sarina area	<ul style="list-style-type: none"> • management of coastal State lands • moorings for fishing and other vessels • residential and tourist development of small coastal communities and effects on wetlands, visual amenity, water quality and quality of life
Yeppoon/Emu Park	<ul style="list-style-type: none"> • provision of services in coastal communities • continued residential and tourist development and effects on wetlands, visual amenity, water quality and quality of life • increasing visitor use pressures on Keppel Islands and Swain Reefs • provision of services
Gladstone	<ul style="list-style-type: none"> • environmental management of heavy industries • port and industrial area expansion • urban stormwater management • increasing visitor use pressures on islands and reefs of the Capricorn-Bunker groups
Seventeen Seventy/Agnes Water	<ul style="list-style-type: none"> • increased accessibility arising from sealing of access road • population growth on existing vacant allotments • provision of services • change of character as population grows