

FOREWORD

The seagrass meadows in the Great Barrier Reef Region are important feeding grounds for a critical proportion of the world population of the dugong species *Dugong dugon*. The dugong has high biodiversity value and is considered by the World Conservation Union to be vulnerable to extinction. A rapid decline of the dugong population in the southern Great Barrier Reef over the last 10 years has raised concerns about the survival of the species in that region. Reasons for the reported decline in dugong numbers are not fully understood, however, because dugongs have very low rates of population growth any impacts such as degradation and loss of seagrass habitat and deterioration of water quality have the potential to threaten the integrity of dugong populations.

Zoning of the Great Barrier Reef Marine Park has provided a certain level of protection of dugongs, especially in the Cairns and Far Northern Section of the Park. In addition, in 1997–98, a system of 16 Dugong Protection Areas was established by the Commonwealth and Queensland Governments as a key strategy to help recover the declining dugong population in the southern Great Barrier Reef. These areas centre on significant habitat and feeding grounds of the dugong population and were declared to minimise the risk to dugongs from anthropogenic effects such as drowning in fishing nets and collision with boats. However, land based pollutants from the Great Barrier Reef catchment are also recognised as a threat to dugong populations through degraded water quality. These pollutants may either directly affect them or indirectly contaminate them through seagrasses on which the dugong feed. Loss of feed by smothering and killing seagrasses with sediment is also a concern due to detrimental land use practices.

The Great Barrier Reef Marine Park Authority is concerned about all potential effects on dugongs in the Dugong Protection Areas, and has therefore documented information relating to water quality in the Areas. The information and associated risk analysis was reported on 30 July 1999 to the Great Barrier Reef Ministerial Council, comprising the Commonwealth and Queensland Government Ministers for the Environment and for Tourism. At the meeting, Queensland Ministers undertook, among other things, to pursue legislative protection of riparian zones and wetlands; to implement Integrated Catchment Management strategies; and to progress agricultural industry Codes of Practice from voluntary to mandatory. The Council also undertook to support studies into habitat quality issues related to seagrass and land runoff; and requested publication of this report subject to favourable peer review.

In accordance with the Council's request, the Great Barrier Reef Marine Park Authority is pleased to make this report available for general consideration.



Hon Virginia Chadwick
Chair
Great Barrier Reef Marine Park Authority

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