

Chapter One: Introduction

1.1 Introduction

The Rangeland's marine and coastal environment provides significant economic, social and cultural value to the region. It is home to the Shark Bay World Heritage Area, the World Heritage nominated Ningaloo Marine Park, some of Western Australia's largest commercial fisheries and infrastructure that is critical to the operations of the region's mining industry. The coastal environment incorporates major estuaries, karst landforms, dune systems and beaches. The coastal and marine environments are also of special significance to Indigenous communities.

The task of managing the marine and coastal environment (within the boundary of the State of Western Australia) falls to a number of Western Australia State Government agencies. These include:

- The Department of Local Government and Regional Development
- The Department of Environment and Conservation
- The Department of Fisheries
- The Department of Minerals and Petroleum (formerly the Department of Industry and Resources)
- The Department of Planning and Infrastructure
- The Western Australian Planning Commission
- Local Governments in the region also have a core role in managing the coastal environment.

Together with these government agencies, the Rangelands NRM Coordinating Group (here after Rangelands WA) has a crucial role in the management of the Region's coastal and marine environments. Rangelands WA is a non-government organisation concerned with enabling the delivery of the Australian Government's natural resource management initiatives, programmes and policies. The overarching purpose of Rangelands WA is to identify and facilitate effective partnerships for the sustainable management of the region's 'natural heritage'. The marine and coastal programme focuses on the area's extensive and diverse coastal and marine environment (as shown in Figure 1.1).

Over recent years, the Rangelands coastal and marine area has attracted an increase in investment in research projects designed to support natural resource management. Investment supporting the development of management plans for the assets of the Rangelands coastal and marine environment has also increased. As of December 2008, there were in excess of 40 plans concerning human activities within the region.

Given the coverage of natural resource management provided through existing management plans, when considering future research, monitoring or remediation projects, it is first necessary to identify what limitations or 'gaps' exist within existing management and research frameworks.

Determining the nature of limitations or 'gaps' is problematic. For example, various agencies, organisations and community groups generally represent a specific set of interests that invariably influence their understanding of limitations and gaps. In determining the nature of limitations or 'gaps' within current management and research frameworks, this study recognises two key factors. These are:

- Many of the management activities undertaken in the Rangelands region involve the voluntary efforts of the individuals who use the environment. As such, ongoing management efforts and research projects must consider the priorities and perceptions of users.
- Individuals who frequently visit (and use) the marine and coastal environment are well positioned to observe how recent regulations, infrastructure developments and demographic changes have influenced the uses of the marine and coastal environment, and thereby identify priority limitations or gaps within existing management frameworks.

This study provides critical background information for directing the development of future management

frameworks and research projects through providing a summary of users' priority concerns regarding the management of the Rangelands marine and coastal environment.

Figure 1.1 Rangelands Region



1.2 Scope of the Study

This study focused on the coastal and marine environment between Carnarvon and Port Hedland. The objectives of the study were:

- To describe the major human activities occurring within the Rangelands coastal and marine environment.
- To identify users' priority concerns regarding the management of the coastal and marine environment.
- To identify probable development trends within the key coastal settlements within the Rangelands region, and implications that development trends might have for the uses of the coastal and marine environment.
- Given probable development trends within the study area, to identify users' perceptions of limitations and gaps within existing management frameworks and research programmes.

The study recognised that users and managers of the marine environment were well placed to describe the uses of the marine and coastal environment and identify priority concerns regarding the management of the natural resources. The study involved extensive community consultations and interviews. Other supporting information sources included: data sets compiled by the Australian Bureau of Statistics; management documents and research reports written by various government agencies, and; data releases prepared by mining companies. Full details of the research methods of this study have been included in Appendix A.

In addition to this report, some of the results from the study have been included on a purpose built website. The website, which was constructed to house data that described the nature and location of human uses within the Rangelands marine and coastal environment, acts as a complementary resource for this report. The website can be accessed at <http://www.rangelandswa.info>. Details on how to use this website have been included in Appendix B.

1.3 Structure of the Report

This report is structured into seven chapters. Following this introductory chapter, Chapter Two presents findings related to the Carnarvon Statistical Local Area. The discussion commences with a review of the population and employment characteristics of the region before outlining the major human uses of the marine and coastal environment. This is followed by a description of the users' priority concerns regarding the nature of human activities in the coastal and marine environment and implications for the natural environment. The discussion then turns to a review of activities, strategies and projects already underway in Carnarvon to address these priority concerns. From this discussion the 'gaps' in existing activities, strategies and projects for addressing users' priority concerns are identified. The chapter concludes with a summary of these 'gaps'.

Chapter Three provides a brief description of the population and employment trends in the Exmouth Statistical Local Area. This area was not studied as part of this project as other on-going projects funded by the CSIRO's Wealth from Oceans Flagship already address issues of human uses in Exmouth.

Chapters Four, Five and Six are structured similar to Chapter Two: which each focusing on a different coastal statistical local area within the study region. Chapter Four centres on the Ashburton Statistical Local Area, Chapter Five centres on the Roebourne Statistical Local Area and Chapter Six centres on the Port Hedland Statistical Local Area. Figure 1.2 illustrates the coastal statistical local areas included in this study.

Chapter Seven, the conclusion, summarises the major findings of the study. This chapter outlines the recommended areas for future research and on-ground works to improve the sustainability of the natural environment given the current and probable future human activities in the area.

The report contains two appendices. Appendix A describes the methods used in this study. Appendix B provides a detailed guide to using the web-based marine and coastal information 'clearing-house' developed as part of this study.

Figure 1.2 Statistical Local Areas Covered in this Report

