

THE HOUTMAN ABROLHOS ISLANDS MANAGEMENT PLAN

FISHERIES MANAGEMENT PAPER NO. 260

Published by
Department of Fisheries
168 St. Georges Terrace
Perth WA 6000

November 2012

ISSN 0819-4327



Government of **Western Australia**
Department of **Fisheries**

The Houtman Abrolhos Islands Management Plan

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Fisheries Management Paper No. 260

ISSN 0819-4327

EXECUTIVE SUMMARY

The Houtman Abrolhos Islands support a diverse and unique range of marine and terrestrial flora and fauna. Abrolhos waters also harbour some of the most important historical shipwrecks in Australia, with associated historic sites located on the islands themselves.

Not surprisingly, the Abrolhos attracts significant economic and social activity, providing substantial benefits to the Western Australian community. These activities include commercial fisheries for rock lobster, scallops and finfish; aquaculture for pearls; recreational finfish fisheries; diving and associated marine-based activities; bird watching and a developing tourism industry. It is also important for scientific research.

The Abrolhos will be managed in accordance with the Department of Fisheries' vision for these islands:

To conserve and promote the unique cultural and environmental heritage values of the Abrolhos for the benefit of present and future generations

The Houtman Abrolhos Islands Management Plan aims to describe how this vision and associated strategic objectives can be achieved over the next five years, through addressing the risks posed to the cultural and environmental heritage values of the Abrolhos.

Some of the key actions in this Plan include:

- Monitoring programs for water quality and terrestrial and marine species;
- Ensuring all fisheries are managed sustainably;
- Strategies for identifying and managing Abrolhos heritage;
- Introduction of an Abrolhos volunteer program;
- Strategies to facilitate tourism at the Abrolhos; and
- Carefully considered developments in public infrastructure.

Through the implementation of this Management Plan, the Department of Fisheries intends to manage the fisheries, other industries and activities at the Abrolhos, whilst maintaining the natural environment and ensuring the safety and enjoyment of the islands' increasing numbers of visitors.

A review of the Houtman Abrolhos Islands Management Plan will commence in 2016 to reflect the changes that will happen at the Abrolhos during the intervening period.

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1 INTRODUCTION

The Houtman Abrolhos Islands (hereafter referred to as “the Abrolhos”) is a complex of islands and reefs located at the edge of the continental shelf between 28°15’S and 29°00’S. Situated approximately 60km offshore from the mid-west coast of Western Australia, the Abrolhos comprises three major island groups:

- North Island-Wallabi Group;
- Easter Group; and
- Pelsaert (or Southern) Group.

The islands support a diverse and unique range of marine and terrestrial flora and fauna. Located at the confluence of temperate and tropical zones, these marine and terrestrial ecosystems may be particularly susceptible to future climate change impacts. Abrolhos waters also harbour some of the most important historical shipwrecks in Australia, with associated historic sites located on the islands themselves.

Not surprisingly, the Abrolhos attracts significant economic and social activity, providing substantial benefits to the Western Australian community. These activities include commercial fisheries for rock lobster, scallops and finfish; aquaculture for pearls; recreational finfish fisheries; diving and associated marine-based activities; bird watching and a developing tourism industry. It is also important for scientific research.

In December 1998, the Department of Fisheries released a blueprint for the future management of the Abrolhos titled the Management of the Houtman Abrolhos System, Fisheries Management Paper No. 117. The plan was to provide a ten-year management framework for the islands.

The development of the updated (2012) version of the management plan (Fisheries Management Paper No 260) is to address new and emerging pressures and issues facing the management of the Abrolhos. It is the culmination of over five years of consultation with a wide range of stakeholders, including the Abrolhos Islands Management Advisory Committee, State Government agencies, Local Government councils, the West Australian Fishing Industry Council, Recfishwest and non-government natural resource management organisations such as the Northern Agricultural Catchments Council.

This management plan will identify the management objectives and strategies for the major assets of the Abrolhos for the next five years.

2 MANAGEMENT FRAMEWORK

The Houtman Abrolhos Nature Reserve No. A20253 is vested under the Western Australian *Land Administration Act 1997* with the Minister for Fisheries, for the purposes of “*Conservation of Flora and Fauna, Tourism and for Purposes Associated with Fishing and Aquaculture Industries*” with power to licence or lease land for periods up to 42 years. In this context, the Minister is the relevant decision-maker with regard to planning and development within the Reserve.

The Abrolhos is surrounded by State Territorial Waters for a distance of three nautical miles from the established state territorial seas baseline as defined under section 7 of the *Seas and Submerged Lands Act 1973*. The State Territorial Waters were gazetted in 1999 as a Fish Habitat Protection Area (FHPA) and vested with the Minister for Fisheries under the *Fish Resources Management Act 1994*.

The Minister for Fisheries has the power to lease and licence land used or occupied at the Abrolhos, which is currently limited to holders of a Zone A commercial rock lobster Managed Fishery Licence (MFL) and aquaculture licensees. This power is embedded in the *Land Administration Act 1997* and the consequent Land Management Order under that Act that places the Abrolhos under the Minister’s control and management in accordance with the terms and conditions of the Land Management Order. In 2007, the Minister for Fisheries entered into a formal land leasing arrangement with land occupants of the Abrolhos.

The Department of Fisheries is responsible for the management of the Abrolhos. However, other government agencies and non-government groups also have statutory or other responsibilities that contribute to managing certain values. It is the responsibility of the Department of Fisheries to facilitate the ‘whole-of-government’ service delivery at the Abrolhos. A summary of these agencies and groups as well as the scope of their responsibilities is described below.

- **The Department of Environment and Conservation** has legislative responsibility for the conservation and protection of flora and fauna under the *Wildlife Conservation Act 1950*.

The *Wildlife Conservation Act 1950* covers the protection of flora and fauna found at and in the waters of the Abrolhos, but the responsibility for managing flora and fauna to meet the requirements of this Act remains with the Department of Fisheries.

- **The Western Australian Museum** has responsibility for the administration of the WA’s *Maritime Archaeology Act 1973* and the Commonwealth *Historic Shipwrecks Act 1976*. These Acts protect valuable State and Commonwealth maritime heritage sites and artefacts, both above and below water. There are several maritime archaeological sites and historic shipwrecks located at the Abrolhos, which are protected under both WA and Commonwealth Acts.
- **The Department of Transport (DoT)** has the lead responsibility for the administration of the *Marine Act 1982* (WA) for ensuring the safety of all vessels in State Territorial Waters. This is inclusive of the management of marine oil pollution responses, vessel accidents or groundings, and vessel moorings. DoT also has the lead responsibility for the administration of the *Jetties Act 1926* and for ensuring that all jetty structures are licensed and maintained in a safe and good condition. The Coastal Infrastructure Branch of DoT calculates the coastal setbacks for development which, among other things, consider possible impacts resulting from sea level rise.

- **Abrolhos Islands Management Advisory Committee (AIMAC)** was established in April 1996 under Section 42 of the *Fish Resources Management Act 1994* to provide information and advice to the Minister for Fisheries on various management issues at the Abrolhos. The committee operates on a referral basis, responding to requests for advice from both the Minister for Fisheries and the Chief Executive Officer of the Department of Fisheries. AIMAC has provided the central source of community contributions into the development of this Management Plan.
- **The Houtman Abrolhos Islands Bodies Corporate** were established in 2007 and comprise four constituted ‘bodies corporate’. Currently, the membership is restricted to holders of A Zone rock lobster Managed Fishery Licences and Abrolhos aquaculture licensees who own infrastructure on the islands.

The roles and responsibilities of the Houtman Abrolhos Islands Bodies Corporate include to:

- Promote and safeguard the interests of the rock lobster and aquaculture concessions within the lease area and the Abrolhos.
- Encourage an understanding of the rock lobster and aquaculture concessions within the lease area and the Abrolhos within the wider community.
- Manage the common use areas under the lease.
- Maintain building standards pursuant to, and in accordance with, relevant building codes, and provide advice to the Department of Fisheries in cases of non-compliance.
- Collect any fees, rents, licences and other levies from members as may be levied from time-to-time and pay to the Lessor.
- **The Commonwealth Department of Sustainability, Environment, Water, Population and Communities (SEWPaC)**, under the *Environment Protection and Biodiversity Conservation Act 1999*, is responsible for ensuring protection for marine environments, to conserve biodiversity, and to deliver the Australian Government’s marine conservation priorities.
- **The Shire of Northampton** is the local government authority for the Abrolhos and is responsible for any applicable local planning strategies and schemes.

3 VISION AND STRATEGIC OBJECTIVES

The Houtman Abrolhos Islands Strategic Plan outlines both the vision and strategic objectives for management of the Abrolhos for the next ten years.

3.1 Vision

To conserve and promote the unique environmental and cultural heritage values of the Abrolhos for the benefit of present and future generations.

3.2 Strategic Objectives

Conservation

To protect and maintain the marine and terrestrial environments of the Abrolhos.

Tourism and Recreation

To facilitate and manage tourism and recreational activities consistent with the environmental and cultural heritage values of the Abrolhos.

Fishing and Aquaculture

To facilitate and manage fishing and aquaculture activities consistent with the environmental and cultural heritage values of the Abrolhos.

Community

To manage resident and visitor communities to facilitate a positive experience of the Abrolhos, consistent with its environmental and cultural heritage values.

Heritage

To conserve the cultural land and maritime heritage values of the Abrolhos.

Engagement

To engage the community in the management of the Abrolhos.

See Appendix 1 for the complete strategic plan.

3.3 Management Plan

The Houtman Abrolhos Islands Management Plan aims to describe how this vision and strategic objectives can be achieved, through addressing the risks posed to the values of the Abrolhos. The values of the Abrolhos are described in a separate publication entitled *Exploring the Houtman Abrolhos Islands*.

Operational Plans will be developed to reflect the relative priority of the various actions based on the risks to and the importance of the Abrolhos ecological, social and economic values.

4 CONSERVATION

To protect and maintain the marine and terrestrial environments of the Abrolhos.

4.1 Water Quality

The high quality of the waters surrounding the islands is important for maintaining marine ecosystem health and function at the Abrolhos.

Management Objectives

- To minimise the impact on water quality in the waters of the Abrolhos Islands Fish Habitat Protection Area as a result of human activities, such that water quality is maintained within relevant standards, consistent with the purposes for which the waters are used.*

Issues

Some of the key issues which pose a threat to water quality at the Abrolhos are:

1. Wastewater discharge from land based infrastructure and marine vessels
2. Chemical spills and discharges from marine vessels, jetties and land-based storage areas

Actions

The table below details the actions proposed to address these key issues.

Issue	Action	Relative Priority
Wastewater discharge from land based infrastructure and marine vessels	1 Develop and implement a Houtman Abrolhos Islands Wastewater Management Strategy, including a standard for wastewater treatment systems at the Abrolhos	Very High
	2 Develop legislation to support the implementation of the Wastewater Management Strategy	Medium
	3 Institute a water monitoring program, including a set of baseline water quality indicators against which management objectives can be evaluated, to monitor marine water quality at the Abrolhos	Very High
Chemical spills and discharges	4 Ensure all chemicals are stored in accordance with Dangerous Goods legislation.	High

4.2 Marine Biota

Abrolhos waters comprise a diverse range of marine habitats, home to tropical and temperate species, including Australian sea lions, western rock lobsters and a number of other species currently listed under State and Commonwealth legislation.

Issues

Some of the key issues which pose a threat to marine species in Abrolhos waters are:

1. Pollution
2. Physical disturbance
3. Potential for fishing at levels which may not be sustainable

4. Fishing impacting on non-target marine species
5. Introduced marine pests
6. Need for more knowledge
7. Climate change

Actions

The table below details the actions proposed to address these key issues.

Issue	Action		Relative Priority
Pollution	5	Develop and implement a Waste Management Strategy to address storage, treatments and disposal of waste from all vessels and land infrastructure at the Abrolhos, including preventing waste being a food source for Abrolhos fauna.	High
Physical disturbance	6	Develop an Indicative Development Plan, which identifies areas where activities are permitted and where access or specific activities should be restricted	Very High
	7	Investigate the use of remote sensing technology to monitor illegal fishing, anchoring or other activities within areas where these are prohibited.	Medium
Sustainable fishing	8	Manage all commercial and recreational fishing within the Abrolhos Islands Fish Habitat Protection Area under an Ecosystem-based Fisheries Management (EBFM) framework, so as to maintain sustainable fish populations.	High
Fishing impacting on non-target species	9	Introduce measures to reduce or eliminate Australian sea lion interactions with rock lobster pots at the Abrolhos.	High
Introduced marine pests	10	Develop and implement a Biosecurity Strategy, incorporating the policy, research, monitoring and stakeholder support necessary to prevent, control and emergency respond to the threat of marine pests and diseases in the Abrolhos. This could include monitoring at both the Abrolhos and Geraldton Port.	High
More knowledge	11	Develop detailed habitat and wildlife distribution maps for the Abrolhos Islands Fish Habitat Protection Area and the Houtman Abrolhos Nature Reserve.	Medium
	12	Develop and implement a monitoring program for priority and indicator species at the Abrolhos.	High
	13	Develop and implement a Research Strategy which outlines research priorities for the Abrolhos.	High
Climate change	14	Promote and support research on climate change impacts to Abrolhos marine ecosystems and learn from other relevant climate change research.	Low

4.3 Terrestrial Flora and Fauna

The Abrolhos support a variety of terrestrial plant species and communities, which are utilised by a diverse range of fauna, including birds, some of them unique to the Abrolhos. Many of these species are listed under State and Commonwealth legislation and international agreements.

Management Objectives

- *To minimise impact from human activities on terrestrial habitats, distribution and populations of terrestrial flora and fauna within the Houtman Abrolhos Nature Reserve, consistent with an ecosystem-based management approach.*

Issues

Some of the key issues which pose a threat to flora and fauna at the Abrolhos are:

1. Pollution
2. Physical disturbance
3. Introduced species
4. Need for more knowledge
5. Climate change

Actions

The table below details the actions proposed to address these key issues.

Issue	Action	Relative Priority
Pollution	15 Develop and implement a Waste Management Strategy to address storage, treatments and disposal of waste from all vessels and land infrastructure at the Abrolhos, including preventing waste being a food source for Abrolhos fauna.	High
Physical disturbance	16 Develop an Indicative Development Plan, which identifies areas where activities and development are permitted and where access or specific activities should be restricted	Very High
	17 Develop and implement a Wildlife Management Strategy, which includes management of introduced species like the tammar wallabies at North Island, measures to protect sea bird breeding areas and monitoring of species identified as a high priority.	High
Introduced species	18 Develop and implement a Vegetation Management Strategy, which incorporates weed management, measures to both preserve and enhance endemic plant species and monitoring of high priority and indicator species.	High
	19 Develop and implement a Biosecurity Strategy, incorporating the policy, research, monitoring and stakeholder support necessary to prevent, control and emergency respond to the threat of terrestrial pests and diseases in the Abrolhos.	High
More knowledge	20 Develop detailed habitat and wildlife distribution maps for the Houtman Abrolhos Nature Reserve	Medium
	21 Develop and implement a monitoring program for priority and indicator species at the Abrolhos.	High
	22 Develop and implement a Research Strategy which outlines research priorities.	High
Climate change	23 Promote and support research on climate change impacts to Abrolhos terrestrial ecosystems and learn from other relevant climate change research.	Low

5 TOURISM AND RECREATION

To facilitate and manage tourism and recreational activities consistent with the environmental and cultural heritage values of the Abrolhos.

5.1 Tourism and Recreation

The Abrolhos features prominently in the Midwest Development Commission's Geraldton-Greenough Tourism Strategy for their environment, history and recreational opportunities. With population increasing in the Midwest and North West, recreation and tourism at the Abrolhos is likely to increase into the future. This includes not only existing activities associated with boating, fishing, diving, wildlife and heritage photography and appreciation, but also potential new ones such as kayaking and wave, wind and kite surfing.

Management Objectives

- *To increase tourism and recreation opportunities at the Abrolhos.*
- *To ensure that tourism and recreation infrastructure and activities are managed to facilitate a high quality visitor experience and maintain the ecological and cultural heritage values of the Abrolhos.*

Issues

Some of the key challenging issues for tourism and recreation at the Abrolhos are:

1. Need for positive tourism experiences
2. Resource sharing with commercial industries, natural environment and heritage
3. Use of existing private infrastructure
4. Need for tourism and recreation infrastructure
5. Need to better understand the carrying capacity of the Abrolhos for increased tourism and recreation activity and manage activity within such limits.

Actions

The table below details the actions proposed to address these key issues.

Issue	Action	Relative Priority
Positive experiences	24 Develop and implement a Tourism and Recreation Management Strategy for the Abrolhos, which addresses the relationships between tourism and other industries at the Abrolhos, potential infrastructure requirements, tourism licensing and environmental, heritage and public safety risks.	Very High
Resource sharing		
Use of existing private infrastructure		
Tourism infrastructure	25 Develop and implement an Infrastructure Management Strategy for the Abrolhos, which addresses capital works, maintenance, building standards, licensing requirements and responsibility for public and private infrastructure at the Abrolhos.	High
	26 Evaluate, develop and implement mechanisms to recoup costs of development and maintenance of public infrastructure from users.	Medium

6 FISHING AND AQUACULTURE

To facilitate and manage fishing and aquaculture activities consistent with the environmental and cultural heritage values of the Abrolhos.

6.1 Fishing – Invertebrates and Finfish

The Abrolhos supports a wide array of fish and invertebrate species including dhufish, coral trout, pink snapper, baldchin groper, red throat emperor, western rock lobster and saucer scallops, making it a priority target area for commercial, recreational and charter fishing in the Midwest region.

Management Objectives

- To ensure that fishing activities are managed consistent with an ecosystem-based approach, maintaining the ecological and cultural heritage values of the Abrolhos.*

Issues

Some of the key issues which challenge the activity of fishing at the Abrolhos are:

- Lack of supporting infrastructure at the Abrolhos, including communications, public utilities (such as electricity and potable water) and land-backed wharves
- Potential for fishing at levels which may not be sustainable
- Public perception of fishing

Actions

The table below details the actions proposed to address these key issues.

Issue	Action	Relative Priority	
Infrastructure	27	Develop and implement an Infrastructure Management Strategy for the Abrolhos, which addresses capital works, maintenance, building standards, licensing requirements and responsibility for public and private infrastructure at the Abrolhos.	High
	28	Manage all commercial and recreational fishing within the Abrolhos Islands Fish Habitat Protection Area under an Ecosystem-based Fisheries Management (EBFM) framework, so as to maintain sustainable fish populations.	High
Sustainable fishing	29	Develop and implement a monitoring program for priority and indicator species in Abrolhos waters.	High
	30	Investigate the use of remote sensing technology to monitor illegal fishing and marine habitats.	Medium
Public perception of fishing	31	Promote the positive benefits of fishing.	Low

6.2 Aquaculture

Numerous aquaculture licences have been granted for the production of various pearl oyster species, finfish, western rock oysters, corals and sponges at the Abrolhos. There is increasing interest at the Abrolhos for aquaculture of these and other marine species.

Management Objectives

- *To ensure that aquaculture activities are managed consistent with an ecosystem-based approach, maintaining the environmental and cultural heritage values of the Abrolhos.*

Issues

Some of the key challenging issues for aquaculture at the Abrolhos are:

1. Resource sharing with other commercial industries, natural environment and heritage
2. Lack of supporting infrastructure at the Abrolhos, including communications, public utilities (such as electricity and potable water) and land-backed wharves
3. Public perception of aquaculture

Actions

The table below details the actions proposed to address these key issues.

Issue	Action		Relative Priority
Resource sharing	32	Develop an Aquaculture Policy for the Abrolhos which addresses both land and sea based aquaculture. This should take into account resource sharing issues associated with other uses of the Abrolhos and may include the establishment of aquaculture precincts.	High
Infrastructure	33	Develop and implement an Infrastructure Management Strategy for the Abrolhos, which addresses capital works, maintenance, licensing requirements and responsibility for public and private infrastructure at the Abrolhos.	High
Public perception of aquaculture	34	Promote the positive benefits of aquaculture	Low

7 COMMUNITY

To manage resident and visitor communities to facilitate a positive experience of the Abrolhos, consistent with its environmental and cultural heritage values.

7.1 Emergency Management

The Abrolhos can pose a serious risk to visitors and residents due to their remoteness, rough conditions and lack of easy accessibility from the mainland.

Management Objectives

- *To ensure visitor and resident safety through policies and procedures which plan for, prevent, manage and recover from foreseeable emergency situations at the Abrolhos.*

Issues

Some of the key issues in relation to visitor and resident safety are:

1. Need for comprehensive emergency planning, incorporating all users of the Abrolhos
2. Infrastructure and equipment to meet emergency planning requirements

Actions

The table below details the actions proposed to address these key issues.

Issue	Action		Relative Priority
Comprehensive plan	35	Develop and implement an Emergency Management and Evacuation Plan in consultation with relevant stakeholders and management agencies. Plan to address all high risk emergency events for the Abrolhos and incorporate requirements for training exercises and regular review.	Very High
Infrastructure and equipment	36	Develop and implement an Infrastructure Management Strategy for the Abrolhos, which addresses emergency management requirements, capital works, maintenance and responsibility for public infrastructure at the Abrolhos.	High

7.2 Public Infrastructure

Public infrastructure has been developed to cater for both visitors and residents at the Abrolhos. This includes fixed-wing airstrips, helipads, public boat moorings, jetty and toilet facilities on Beacon and East Wallabi Islands and boardwalks on East Wallabi and Pelsaert Islands.

Management Objectives

- *To ensure all public infrastructure are maintained at a safe and serviceable level.*

Issues

Some of the key challenging issues in relation to public infrastructure are:

1. Need for comprehensive planning for development and management of public infrastructure
2. High construction, management and maintenance costs due to the remote location and harsh environment

Actions

The table below details the actions proposed to address these key issues.

Issue	Action	Relative Priority
Maintenance and management costs	37 Evaluate, develop and implement mechanisms to recoup costs of development and maintenance of public infrastructure from users.	Medium
Comprehensive plan	38 Develop and implement an Infrastructure Management Strategy for the Abrolhos, which addresses capital works, maintenance, licensing requirements and responsibility for public infrastructure at the Abrolhos.	High

7.3 Private Infrastructure

Permanent camps and jetties have been established on 22 of the 122 islands. These camps are leased by holders of a Zone A West Coast Rock Lobster Managed Fishery Licence (MFL) or an aquaculture licence within either the Houtman Abrolhos Nature Reserve or the Abrolhos Islands Fish Habitat Protection Area. In terms of area, the land under lease is 0.5 Km², or approximately 3% of the total terrestrial land area of the Reserve.

Management Objectives

- *To ensure appropriate ownership, utilisation and maintenance of structures, consistent with relevant building standards, licensing requirements and the ecological and cultural heritage values of the Abrolhos.*

Issues

Some of the key issues in relation to private infrastructure are:

1. Future diverse demands on uses of land and infrastructure
2. Maintenance of infrastructure
3. Structures meeting relevant building standards and licensing requirements

Actions

The table below details the actions proposed to address these key issues.

Issue	Action	Relative Priority
Diverse demands	39 Develop an Indicative Development Plan, which identifies areas where activities and development are permitted and where access or specific activities should be restricted	Very High
	40 Develop a Structures Register, which identifies all structures and their responsible entity, including both occupied and unoccupied private infrastructure.	High
Maintenance	41 Develop and implement an Infrastructure Management Strategy, which includes auditing all existing structures against relevant building standards and/or licensing requirements and addresses maintenance, transfer and removal of structures, including both occupied and unoccupied private infrastructure.	High
Building standards		

8 HERITAGE

To conserve the cultural land and maritime heritage values of the Abrolhos.

8.1 Heritage Management

The history of the Abrolhos is unique and colourful, dating back to 1619 when Frederik de Houtman and his crew of the United Dutch East India Company ship *Dordrecht* first encountered and named the Houtman Abrolhos. The *Batavia* and subsequent shipwrecks, evidence of guano mining and commercial fishing all contribute to the heritage values of the Abrolhos.

Management Objectives

- *To ensure that the cultural heritage values of the Abrolhos are protected for future generations.*

Issues

Some of the key issues challenging the conservation of heritage values in the Abrolhos are:

1. Human activities impacting on heritage values
2. Need for a whole of government collaborative approach to heritage management
3. Need for more information

Actions

The table below details the actions proposed to address these key issues.

Issue	Action		Relative Priority
Human activities	43	Develop a Heritage Management Strategy for all cultural heritage values at the Abrolhos, which will address maritime heritage as well as historic maritime industries, potential infrastructure requirements, interpretive content and heritage protection measures	High
Whole of government collaborative approach to heritage management	44	Investigate and develop Memoranda of Understanding with key heritage bodies, such as the WA Museum and the Heritage Council of WA.	Medium
More information	45	Establish and maintain an inventory of cultural heritage values at the Abrolhos, which includes prioritisation of sites.	Medium

9 ENGAGEMENT

To engage the community in the management of the Abrolhos.

9.1 Public Engagement

The marine and terrestrial environment and heritage at the Abrolhos presents a unique opportunity for public education and research about WA history, maritime industries, habitats and species.

Management Objectives

- *To enhance community understanding of, and support for, the protection and maintenance of the marine and terrestrial environment and cultural heritage values of the Abrolhos.*
- *To increase the public profile of the Abrolhos in the media.*
- *To make the Abrolhos more accessible to the WA community.*
- *To create partnerships with the community.*

Issues

Some of the key issues which pose challenges to public knowledge about the Abrolhos are:

1. The isolation of the Abrolhos from the mainland
2. Need for easily accessible, current information about the Abrolhos available to the public
3. Need for prior planning and infrastructure establishment at the Abrolhos
4. Need for opportunities for the public to provide input on management of the Abrolhos

Actions

The table below details the actions proposed to address these key issues.

Issue	Action	Relative Priority
Isolation of the Abrolhos from the mainland	46 Investigate the use of technology such as coast cameras, remote sensing and internet based media at the Abrolhos.	Medium
Easily accessible, current information about the Abrolhos available to the public	47 Develop and implement an Abrolhos Communication Strategy which addresses media relations, education programs, public information resources, codes of conduct for the Abrolhos, publication of research findings and interpretive signage.	High
	48 Develop and implement a Research Strategy which outlines research priorities.	High
	49 Facilitate priority scientific research at the Abrolhos conducted by research, academic and educational institutions, by providing financial and logistical assistance (where possible).	Low
Public opportunities to provide input on management of the Abrolhos	50 Investigate and establish an Abrolhos volunteer program to undertake educational, interpretive and management activities for the Abrolhos, including possible involvement in research.	Medium
	51 Develop and implement an appropriate advisory framework, incorporating a wide diversity of stakeholders that may include tourism, recreation and natural resource management organisations, which inputs into the decision making process for management of the Abrolhos	High
	52 Review and report on progress of actions in this Management Plan regularly.	High

1.1 Intergovernmental Engagement

As detailed in Section 2, management of the Abrolhos rests predominantly with the Department of Fisheries, but other government bodies have responsibilities and interests in relation to the Abrolhos.

Management Objectives

- *To ensure a whole of government cooperative approach to management of the Abrolhos.*

Issues

Some of the key issues which make a whole of government approach challenging at the Abrolhos include:

1. Clear delineation of responsibilities at the Abrolhos
2. Need for formal agreements
3. Need for opportunities for other government agencies to provide input on management of the Abrolhos

Actions

The table below details the actions proposed to address these key issues.

Issue	Action		Relative Priority
Clear delineation of responsibilities at the Abrolhos	53	Preparation of agreements (for example, Memoranda of Understanding, Service Level Agreements, etc.) between Department of Fisheries and other government bodies for management activities at the Abrolhos.	High
Formal agreements			
Opportunities to provide input on management of the Abrolhos	54	Develop and implement an Abrolhos Communication Strategy which addresses intergovernmental communication and consultation.	High

10 SUMMARY

The actions to be undertaken as part of this Management Plan are summarised in the table below:

No.	Action	Relative Priority
1	Develop and implement a Houtman Abrolhos Islands Wastewater Management Strategy, including a standard for wastewater treatment systems at the Abrolhos.	Very High
3	Institute a water monitoring program, including a set of baseline water quality indicators against which management objectives can be evaluated, to monitor marine water quality at the Abrolhos.	Very High
6, 16, 39	Develop an Indicative Development Plan, which identifies areas where activities and development are permitted and where access or specific activities should be restricted.	Very High
24	Develop and implement a Tourism and Recreation Management Strategy for the Abrolhos, which addresses the relationships between tourism and other industries at the Abrolhos, potential infrastructure requirements, tourism licensing and environmental, heritage and public safety risks.	Very High
35	Develop and implement an Emergency Management and Evacuation Plan in consultation with relevant stakeholders and management agencies. Plan to address all high risk emergency events for the Abrolhos and incorporates requirements for training exercises and regular review.	Very High
4	Ensure all chemicals are stored in accordance with Dangerous Goods legislation.	High
5, 15	Develop and implement a Waste Management Strategy to address storage, treatments and disposal of waste from all vessels and land infrastructure at the Abrolhos.	High
8, 28	Manage all commercial and recreational fishing within the Abrolhos Islands Fish Habitat Protection Area under an Ecosystem-based Fisheries Management (EBFM) framework, so as to maintain sustainable fish populations.	High
10	Develop and implement a Biosecurity Strategy, incorporating the policy, research, monitoring and stakeholder support necessary to prevent, control and emergency respond to the threat of marine pests and diseases in the Abrolhos. This could include monitoring at both the Abrolhos and Geraldton Port.	High
11, 20	Develop detailed habitat and wildlife distribution maps for the Abrolhos Islands Fish Habitat Protection Area and the Houtman Abrolhos Nature Reserve.	High
12, 21, 29	Develop and implement a monitoring program for priority and indicator species at the Abrolhos.	High
13, 22, 48	Develop and implement a Research Strategy which outlines research priorities for the Abrolhos.	High
17	Develop and implement a Fauna Management Strategy, which includes management of introduced species like the tammar wallabies at North Island, measures to protect sea bird breeding areas and monitoring of species identified as a high priority.	High
18	Develop and implement a Vegetation Management Strategy, which incorporates weed management, measures to both preserve and enhance endemic plant species and monitoring of high priority and indicator species.	High
19	Develop and implement a Biosecurity Strategy, incorporating the policy, research, monitoring and stakeholder support necessary to prevent, control and emergency respond to the threat of terrestrial pests and diseases in the Abrolhos.	High
25, 27, 33, 36, 38, 41	Develop and implement an Infrastructure Management Strategy for the Abrolhos, which includes auditing all existing structures against relevant building standards and/or licensing requirements and addresses emergency management requirements; capital works; maintenance, transfer and removal of structures, including both occupied and unoccupied private infrastructure; and responsibility for public and private infrastructure at the Abrolhos.	High

No.	Action	Relative Priority
32	Develop an Aquaculture Policy for the Abrolhos which addresses both land and sea based aquaculture. This should take into account resource sharing issues associated with other uses of the Abrolhos and may include the establishment of aquaculture precincts.	High
40	Develop a Structures Register, which identifies all structures and their responsible entity, including both occupied and unoccupied private infrastructure.	High
42	Review and implementation of building standards and structure licensing requirements for the Abrolhos.	High
47, 54	Develop and implement an Abrolhos Communication Strategy which addresses media relations, education programs, public information resources, codes of conduct for the Abrolhos, publication of research findings, interpretive signage, intergovernmental communication and consultation.	High
51	Develop an implement an appropriate advisory framework, incorporating a wide diversity of stakeholders that may include tourism, recreation and natural resource management organisations, which inputs into the decision making process for management of the Abrolhos.	High
52	Review and report on progress of actions in this Management Plan regularly.	High
53	Preparation of agreements (for example, Memoranda of Understanding, Service Level Agreements, etc.) between Department of Fisheries and other government bodies for management activities at the Abrolhos.	High
2	Develop legislation to support the implementation of the Wastewater Management Strategy.	Medium
7, 30, 46	Investigate the use of technology such as coast cameras, remote sensing and internet based media at the Abrolhos to monitor marine and terrestrial habitats, illegal fishing, anchoring and other activities within areas where these are prohibited.	Medium
9	Introduce measures to reduce or eliminate Australian sea lion interactions with rock lobster pots at the Abrolhos.	Medium
26, 37	Evaluate, develop and implement mechanisms to recoup costs of development and maintenance of public infrastructure from users.	Medium
43	Develop a Heritage Management Strategy for all cultural heritage values at the Abrolhos, which will address maritime heritage as well as historic maritime industries, potential infrastructure requirements, interpretive content and heritage protection measures.	Medium
44	Investigate and develop Memoranda of Understanding with key heritage bodies, such as the WA Museum and the Heritage Council of WA.	Medium
45	Establish and maintain an inventory of cultural heritage values at the Abrolhos, which includes prioritisation of sites.	Medium
50	Investigate and establish an Abrolhos volunteer program to undertake educational, interpretive and management activities for the Abrolhos, including possible involvement in research.	Medium
14, 23	Promote and support research on climate change impacts to Abrolhos marine and terrestrial ecosystems and learn from other relevant climate change research.	Low
31	Promote the positive benefits of fishing.	Low
34	Promote the positive benefits of aquaculture.	Low
49	Facilitate priority scientific research at the Abrolhos conducted by research, academic and educational institutions, by providing financial and logistical assistance (where possible).	Low

Notes:

Relative Priority

While all Actions in the above Table are allocated a Relative Priority, this ranking simply indicates the relative importance of the Action in delivering the desired outcomes of the Strategic Plan and also the sequence in which the Actions will be addressed by the Department of Fisheries (the Department). Due to the annual uncertainties associated with accessing the necessary resources to complete any particular Action within a certain timeframe, it is of limited value to assign a “completion date” to these Actions.

Nevertheless, within these constraints, the Department aims to complete all “Very High” Actions and as many “High” Actions as is possible within the life of the current Management Plan (i.e. within five years).

Ecosystem-based Management (EBM)

Ecosystem-based Management is an environmental management approach that recognises the full array of interactions within an ecosystem, including humans, rather than considering single issues, species or ecosystem services in isolation (Christensen et al. 1996, McLeod et al. 2005).

Ecosystem-based Fisheries Management (EBFM)

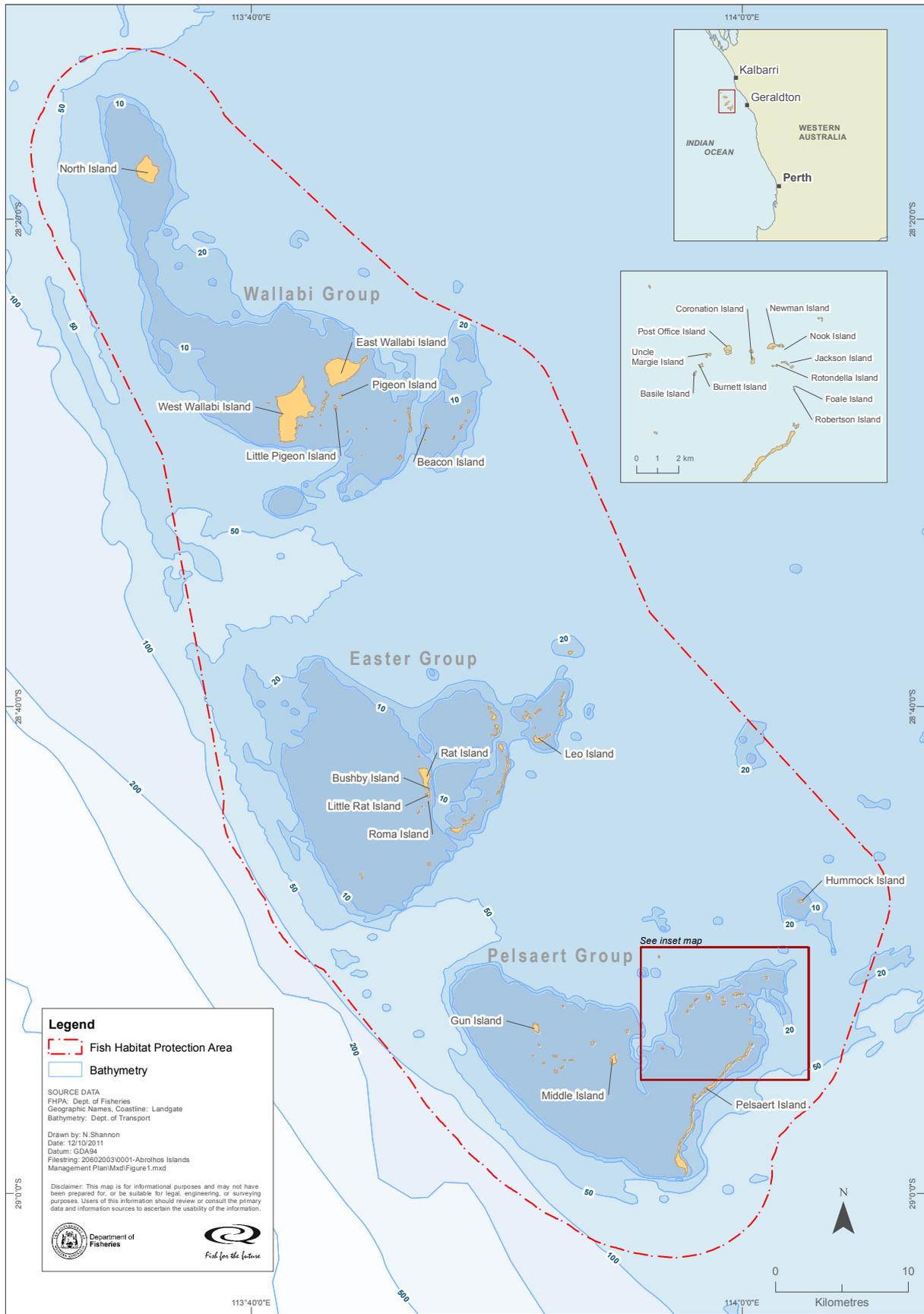
Ecosystem-based Fisheries Management is an extension of the EBM approach. It is a risk-based management approach which recognises the social, economic and ecological values at a regional level and links between exploited fish stocks and the broader marine ecosystem, to ensure the sustainable management of all fisheries resources into the future. The Department, through the implementation of an EBFM framework (Fletcher et al. 2010), identifies these individual (‘lower level’) values, and provides a mechanism for reporting on their status and the fisheries management arrangements that are being applied.

APPENDIX 1 HOUTMAN ABROLHOS ISLANDS STRATEGIC PLAN

Vision: *To conserve and promote the unique environmental and cultural heritage values of the Abrolhos for the benefit of present and future generations*

Strategic Objectives	Management Objectives
Conservation <i>To protect and maintain the marine and terrestrial environments of the Abrolhos.</i>	To minimise the impact on water quality in the waters of the Abrolhos Islands Fish Habitat Protection Area as a result of human activities, such that water quality is maintained within relevant standards, consistent with the purposes for which the waters are used.
	To minimise impact from human activities on marine habitats, distribution and populations of marine species in the Abrolhos Islands Fish Habitat Protection Area, consistent with an ecosystem-based management approach.
	To minimise impact from human activities on terrestrial habitats, distribution and populations of terrestrial flora and fauna within the Houtman Abrolhos Nature Reserve, consistent with an ecosystem-based management approach.
Tourism and Recreation <i>To facilitate and manage tourism and recreational activities consistent with the environmental and cultural heritage values of the Abrolhos.</i>	To increase tourism and recreation opportunities at the Abrolhos.
	To ensure that tourism and recreation infrastructure and activities are managed to facilitate a high quality visitor experience and maintain the ecological and cultural heritage values of the Abrolhos.
Fishing and Aquaculture <i>To facilitate and manage fishing and aquaculture activities consistent with the environmental and cultural heritage values of the Abrolhos.</i>	To ensure that fishing activities are managed consistent with an ecosystem-based approach, maintaining the ecological and cultural heritage values of the Abrolhos.
	To ensure that aquaculture activities are managed consistent with an ecosystem-based approach, maintaining the environmental and cultural heritage values of the Abrolhos.
Community <i>To manage resident and visitor communities to facilitate a positive experience of the Abrolhos, consistent with its environmental and cultural heritage values.</i>	To ensure visitor and resident safety through policies and procedures which plan for, prevent, manage and recover from foreseeable emergency situations at the Abrolhos.
	To ensure all public infrastructure are maintained at a safe and serviceable level.
	To ensure appropriate ownership, utilisation and maintenance of structures, consistent with relevant building standards, licensing requirements and the ecological and cultural heritage values of the Abrolhos.
Heritage <i>To conserve the cultural land and maritime heritage values of the Abrolhos.</i>	To ensure that the cultural heritage values of the Abrolhos are protected for future generations.
Engagement <i>To engage the community in the management of the Abrolhos.</i>	To enhance community understanding of, and support for, the protection and maintenance of the marine and terrestrial environment and cultural heritage values of the Abrolhos.
	To increase the public profile of the Abrolhos in the media.
	To make the Abrolhos more accessible to the WA community.
	To create partnerships with the community.
	To ensure a whole of government cooperative approach to management of the Abrolhos.

APPENDIX 2 THE HOUTMAN ABROLHOS ISLAND GROUPS



APPENDIX 3 ACRONYMS

AIMAC	Abrolhos Islands Management Advisory Committee
CASA	Civil Air Safety Authority
SEWPaC	Commonwealth Department of Sustainability, Environment, Water, Population and Community
EBFM	Ecosystem-based Fisheries Management
EBM	Ecosystem-based Management
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
FHPA	Fish Habitat Protection Area
FRM Act	<i>Fish Resources Management Act 1994</i>
FRM Regulations	<i>Fish Resources Management Regulations 1995</i>
Abrolhos	Houtman Abrolhos Islands
MFL	Managed Fishery Licence
ROA	Reef Observation Area
DoF	Western Australian Department of Fisheries
DEC	Western Australian Department of Environment and Conservation
DoP	Western Australian Department of Planning
DoT	Western Australian Department of Transport
WAM	Western Australian Museum
WRLMF	Western Rock Lobster Managed Fishery
WC Act	<i>Wildlife Conservation Act 1950</i>