



Department of
Primary Industries and
Regional Development

*We're working for
Western Australia.*

Houtman Abrolhos Islands Fish Habitat Protection Area

Part 1 – Draft Management Plan 2022



PR001/21

For public comment

Front cover image: Diver observing a cannon from *Batavia* in the Beacon Island ROA, Wallabi Group. Credit: DPIRD, Shannon Conway.



Image 1- Fringing reef drop off, Wooded Island, Easter Group. Credit: DPIRD, N. Moore

Important Disclaimer

The Chief Executive Officer of the Department of Primary Industries and Regional Development and the State of Western Australia accept no liability whatsoever by reason of negligence or otherwise arising from the use or release of this information or any part of it.

Copyright © State of Western Australia (Department of Primary Industries and Regional Development) 2022.

Introduction

The Houtman Abrolhos Islands Fish Habitat Protection Area (Abrolhos FHPA) includes the breathtaking marine environment surrounding the Houtman Abrolhos Islands, located 65-90 kilometres off Geraldton in Western Australia's Midwest region. The island chain is approximately 90 kilometres long and includes over 200 islands and associated reefs. Pristine waters, a rich biodiversity of marine and other wildlife, significant historic shipwrecks and rock lobster fishing and aquaculture industries are all part of the magic that is the Abrolhos Islands. Visitors come from far and wide to enjoy the remoteness and beauty of this world class destination, and to undertake a range of activities in the marine environment.

In October 2017, the Western Australian State Government made a commitment to develop a new whole-of-government approach to better protect the Abrolhos Islands. The creation of the Houtman Abrolhos Islands National Park (the National Park) in July 2019, together with State Government's *Houtman Abrolhos Islands Strategic Direction 2020 – 2024*¹ (Strategic Direction) in 2020, signals State Government's intention to better position the Abrolhos Islands and surrounding waters as a sustainable, nature-based tourism destination and to support regional economic growth.

The Strategic Direction shares State Government's vision and key initiatives that will inform future management of the Abrolhos across the land and water. The Strategic Direction provides a clear vision for the Abrolhos Islands:

“To provide a world-class sustainable tourism experience and create new jobs and economic opportunities in the Midwest region, while protecting the unique natural, cultural heritage, fishing and community values of the Abrolhos.”

Houtman Abrolhos Islands Strategic Direction 2020 – 24

DPIRD's strategic intent and goals to protect, grow and innovate align with this initiative. DPIRD is committed to working with relevant government agencies, industry and the community to achieve outcomes for the Western Australian community. Our purpose is to create enduring prosperity for all Western Australians by ensuring that primary industries and regions are key contributors to the Government's agenda for economic growth and diversification, job creation, strong communities and better places.

Management planning processes are currently underway for the National Park, the Houtman Abrolhos Islands Class A Reserve (Abrolhos Reserve) and Abrolhos FHPA. The management planning process for the National Park is being undertaken by the Department of Biodiversity, Conservation and Attractions (DBCA) and information on this process can be found here - www.dbca.wa.gov.au.

The management planning processes for the Abrolhos Reserve and Abrolhos FHPA are being undertaken by DPIRD.

¹ www.dbca.wa.gov.au/parks-and-wildlife-service/plan-for-our-parks/houtman-abrolhos-islands-national-park

DPIRD has developed a purpose for the Abrolhos Reserve and FHPA that is aimed at supporting the State Government's vision for the Abrolhos Islands:

“In collaboration with State Government agencies and the community, sustainably manage the aquatic resources of the Abrolhos Islands, and promote the economic and social opportunities that exist for this unique island group off the Western Australian coast.”

The *Houtman Abrolhos Islands Fish Habitat Protection Area Part 1: Draft Management Plan 2022* (draft management plan) and the *Houtman Abrolhos Islands Fish Habitat Protection Area Part 2: Draft Zoning Scheme 2022* (Abrolhos FHPA Draft Zoning Scheme) relate specifically to the Abrolhos FHPA. They seek to address current, new and emerging pressures and issues facing management of the Abrolhos FHPA and takes account of the current and anticipated growth in tourism.

The draft management plan represents a genuine opportunity to explore, discuss, and debate the challenges of the management issues and future directions for the Abrolhos FHPA. The consultation and feedback will shape and enhance the quality of the decisions in the final plan that is approved by the State Government, and through this, achieve broad stakeholder ownership of the approved management plan.

A comprehensive independent community engagement process was undertaken during 2021 to inform the development of this draft management plan, and the draft management plan for the Abrolhos Reserve. The outcomes of this community engagement process have directly informed the management objectives and actions in this draft management plan, and the final report has been published to generate discussion and feedback.

“Overall, the clear message is that everything should be managed to achieve low impact and light touch. Stakeholders’ aspirations are for the Abrolhos to remain a place for community to connect, to belong, to share with the next generation, and to keep it as a place of wonder and peace, and not to be just a tourism destination.”

Abrolhos Reserve and Fish Habitat Protection Area Consultation Report 2022

There are also some issues where there is clear conflict between and within sectors. Therein lies the challenge for Government and this draft plan aims to achieve an appropriate balance between the needs of nature, visitors and workers.

“By managing a healthy co-existence between the needs of nature, those that want to visit and those that work here and have for generations, a special place can be retained for the future and shared sustainably with this generation of the Abrolhos community.”

Abrolhos Reserve and Fish Habitat Protection Area Consultation Report 2022

This document should be read together with the following:

1. *Houtman Abrolhos Islands Fish Habitat Protection Area Part 2: Draft Zoning Scheme 2022* (DPIRD)
2. *Houtman Abrolhos Islands Class A Reserve Draft Management Plan 2022* (DPIRD)
3. *Houtman Abrolhos Islands National Park Draft Management Plan 2021*² (DBCA)

² www.dbca.wa.gov.au/parks-and-wildlife-service/plan-for-our-parks/houtman-abrolhos-islands-national-park

Other documents relevant to DPIRD's planning process for the Abrolhos FHPA include:

1. *Houtman Abrolhos Islands Strategic Direction 2020 – 2024*
2. *Abrolhos Islands Stakeholder Engagement Project – Final Report 2022*
3. *Abrolhos Islands Moorings Review and Analysis Project – Final Report 2021*
4. *Houtman Abrolhos Islands Fish Habitat Protection Area: A Summary of Marine Resource Use and Ecological Attributes 2022*

DPIRD documents of relevance include:

1. *Primary Industries Plan 2020 – 2024*
2. *Strategic Intent 2022 – 2026³; and*
3. *Status Reports of the Fisheries and Aquatic Resources of Western Australia (State of the Fisheries)⁴.*

³ <https://www.wa.gov.au/government/publications/strategic-intent-2022-26-department-of-primary-industries-and-regional-development>

⁴ <http://www.fish.wa.gov.au/About-Us/Publications/Pages/State-of-the-Fisheries-report.aspx>

Invitation to Comment

The *Houtman Abrolhos Islands Fish Habitat Protection Area Part 1: Draft Management Plan 2022* and the *Houtman Abrolhos Islands Fish Habitat Protection Area Part 2: Draft Zoning Scheme 2022* have been released for a six-week period to provide the public with an opportunity to comment on how the Abrolhos FHPA is proposed to be managed during the next 10 years.

Both documents can be viewed online at <http://www.fish.wa.gov.au/About-Us/Public-Comment/Pages/default.aspx> This includes a link to the online submission form.

The deadline for submissions is 5:00pm on **3 April 2022**.

Please note that DPIRD will only be accepting submissions lodged via the online submission form.

The draft management plan and draft zoning scheme will be reviewed in light of submissions received. A summary of public submissions will be made available along with the final approved management plan.

Please note that a draft management plan has also been prepared for the Abrolhos Reserve. It can also be viewed at the above link, along with the online submission form.

Contents

Introduction	3
Invitation to Comment	6
Contents	7
1. General Overview.....	8
1.1 Planning area and use	8
1.2 Abrolhos FHPA key values, management focus and opportunities	13
1.3 Abrolhos FHPA management context.....	16
2. Strategic Priorities	23
2.1. Nature Conservation and Protection.....	23
2.2 Cultural Heritage Protection.....	40
2.3 Marine Tourism and Recreation.....	46
2.4 Sustainable Fisheries and Aquaculture	68
2.5 Abrolhos Community	84
2.6 Governance	89
References.....	94
Glossary	98
Appendix 1: Prioritised Summary Action Table	101
Appendix 2: Summary of Management Objectives for the FHPA.....	109

1. General Overview

Western Australians are born wanderers and are highly mobile travellers. Since the detection of the first Australian case of COVID-19 in January 2020 and the ensuing world-wide pandemic, domestic and interstate travel to holiday destinations across Western Australia (WA) significantly increased. While this is a welcome trend for the community, domestic tourism providers and regional areas, the impacts on key values in the Abrolhos FHPA must be carefully identified and managed to ensure stunning natural landscapes and seascapes of the Abrolhos Islands are enjoyed by all for generations to come.

DPIRD is seeking to address current, new and emerging pressures and issues facing management of the marine environment of the Abrolhos Islands and account for the current and anticipated growth in tourism. This draft management plan outlines the specific management objectives and actions that DPIRD proposes to implement to achieve management outcomes for the following key priorities relevant to the Abrolhos FHPA:

1. Nature conservation and protection
2. Cultural heritage protection
3. Tourism
4. Sustainable fisheries and aquaculture
5. Abrolhos community; and
6. Governance.

1.1 Planning area and use

The Abrolhos FHPA includes all state waters (as defined under section 7 of the *Seas and Submerged Lands Act 1973*) from the high-water mark of the Abrolhos Islands out to three nautical miles, an area of almost 2,500 square kilometres ([Figure 1](#)). The FHPA extends in a north westerly to south easterly direction for approximately 100 kilometres and is around 40 kilometres at its widest point. In addition to aquatic organisms, DPIRD is primarily responsible for the management of marine-based activities and location of marine infrastructure within the Abrolhos FHPA.

The Abrolhos Reserve is managed by DPIRD on behalf of the Minister for Fisheries. Most of the Reserve land (approximately 85%) is leased to the owners of 'camps' who are operating pursuant to commercial rock lobster and aquaculture licences in waters surrounding the Abrolhos Islands. The Abrolhos Reserve also includes the intertidal areas around all islands, except for two locations at East Wallabi and Beacon Islands. The Abrolhos Reserve and FHPA therefore overlap between the high and low-water marks.

The *Fish Resources Management Act 1994* (FRMA) and associated regulations is the primary legislation DPIRD uses to manage both the Abrolhos Reserve and FHPA.

The National Park is managed by the Department of Biodiversity, Conservation and Attractions (DBCA) under the *Conservation and Land Management Act 1984* (CALM Act), on behalf of the Conservation and Parks Commission. The National Park includes all uninhabited islands and uninhabited portions of islands (i.e., North, West Wallabi, Rat, Leo and Newman Islands) to the high-water mark, except for two locations at East Wallabi and Beacon Islands where public jetties are to be located.

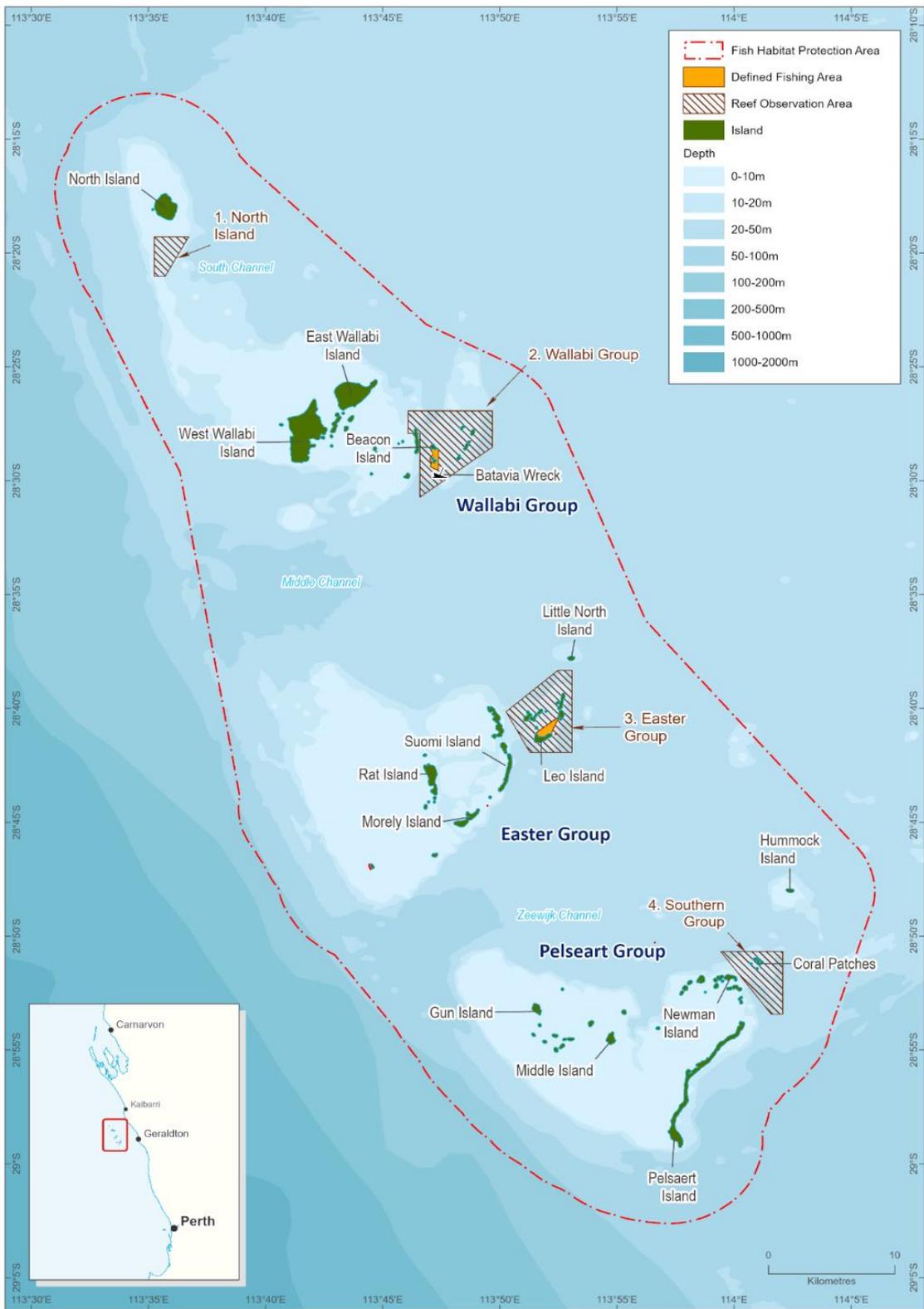


Figure 1- Abrolhos Islands Fish Habitat Protection Area

Abrolhos FHPA marine tourism and visitation trends

Currently, most recreational visitors to the Abrolhos FHPA arrive by, and reside on, boats during their stay. Some visitors arrive by aircraft (North Island, East Wallabi Island or Rat Island) and join a marine tourism operation or private recreational boat. For further detail regarding tourism values and activities please refer to [Section 2.3 Marine Tourism and Recreation](#).

There is a regulatory requirement to notify DPIRD before entering the Abrolhos FHPA by boat⁵. The notification requirement was introduced in March 2016 and has progressed from a paper-based form to an online form located on the DPIRD Fisheries WA website. The online notification requirement provides DPIRD with valuable information that can be used in medical emergencies, provision of evacuation advice, assessing marine biosecurity risks and for compliance and educative purposes. The notification data can also be used for planning purposes relating to marine tourism such as location and demand for future marine tourism infrastructure (moorings, jetties, pontoons etc), and further needs around navigation aids and safety at sea.

[Table 1](#) summarises the type of information obtained from the online notification database over the past three financial years (2018/19 to 2020/21).

Most visitors to the Abrolhos FHPA are private recreational boat owners based in WA. A handful of private recreational boats visit from interstate or overseas and a number of commercial marine eco-tour (non-fishing) and licensed fishing tour (charter fishing) operators operate annually. Other reasons for entering the Abrolhos FHPA include research, training, defence and commercial film and photography. Expedition and small domestic cruise ship interest and visitation is increasing but is still operating at relatively low levels. There has also been historical interest in offering a visitation service from Perth to the Abrolhos FHPA via marine aircraft such as sea planes and boat planes.

During 2020/21, most trips (1,256 trips - 70%) to the Abrolhos FHPA were made by local private recreational boat owners to the Pelsaert Group on boats up to 10 metres (33 ft). Charter and eco-tourism trips made up approximately 15% of visits. Trips for reasons such as research, training, commercial film/photography, 'other' and transiting made up 5% of visits (86 trips). Seven percent of trips (123 trips) were undertaken by aquaculture operators, commercial fishers or camp owners who chose to use DPIRD's online notification form. Some commercial fishers, aquaculture operators and camp owners are permitted to notify using other means i.e., as required under regulatory management plans and licence conditions. This information is captured and recorded separately (refer to [Section 2.4 Sustainable Fisheries and Aquaculture](#)).

The four months October to January across all years continue to be the lowest visitation months annually due to unfavourable wind conditions making for an uncomfortable recreational visit via boat. September (and August 2021), in addition to the five months February to June remain the most popular months for visiting the Abrolhos FHPA.

⁵ Marine aircraft such as seaplanes and boat planes are included in the definition of 'boat' in the *Fish Resources Management Act 1994*.

Cyclone Seroja passed to the east of the Abrolhos Islands during the peak visitation period in April 2021, with the Islands being evacuated prior to Seroja making landfall just south of Kalbarri. Despite this and COVID-19 impacts (see below) April 2021 recorded the highest month trip number during 2020/21.

Table 1: Abrolhos FHPA user annual trip trends 2018/19 – 2020/21

Indicator	2018/19	2019/20	2020/21
Number of individual boat trips	1,487	1,405	1,786
Highest trip number month	Apr 2019	Mar 2020	Apr 2021
Lowest trip number month	Nov 2018	Nov 2019	Nov 2020
Most common home port	Geraldton	Geraldton	Geraldton
Number of overseas vessel trips	4	3	4
Number of interstate vessel trips	9	5	17
Most common vessel length	0-10m	0-10m	0-10m
Island group most visited	Pelsaert Group	Pelsaert Group	Pelsaert Group
Most common reason for visiting	Private recreational	Private recreational	Private recreational

COVID-19 impacts on tourism and recreation in the Abrolhos FHPA

[Table 2](#) displays the changes in monthly visitation (number of trips) recorded prior to COVID-19 measures (July 2019 to March 2020) and since (April 2020 to June 2021).

The effects from COVID-19 lockdowns and travel restrictions between 23 March and 29 May 2020 influenced private recreational visitation and commercial marine tourism operations during 2020. After COVID-19 measures were relaxed at the end of May 2020, local visitation increased between the four months June 2020 to September 2020. The total visitation number for 2019/20 was only slightly less than 2018/19, indicating that COVID-19 did not have a significant impact on local visitation to the Abrolhos FHPA. Despite a number of lockdowns, local travel to the Abrolhos FHPA was highest in eight of the 12 months during 2020/21, and higher than the previous two years.

The uncertainty around future COVID-19 measures and increases in visitation numbers has added to the difficulty around making future planning decisions around marine tourism infrastructure needs and commercial marine tourism operations. Overall, boat-based visitation to the Abrolhos FHPA has been historically lower than other destinations around WA, however with a growing population and recreational boat ownership of more than 100,000 and growing (Boating WA, 2021), marine tourism is expected to increase across the State.

Table 2: Number of boat trips per month to the Abrolhos FHPA financial years 2018/19 to 2020/21*

Month	2018/19	2019/20	2020/21
July	62	85	97
Aug	80	49	103
Sep	96	152	190
Oct	78	87	74
Nov	27	22	26
Dec	57	55	75
Jan	55	36	90
Feb	177	190	55
Mar	164	198 [^]	266
Apr	365	194	435
May	231	139	183
Jun	95	194	132
	1,487	1,405	1,786

*Based on recorded departure date

[^]COVID-19 measures introduced from 23 March 2020

Abrolhos FHPA commercial industries snapshot

DPIRD manages the activities of commercial operations that target aquatic resources within the Abrolhos FHPA, including charter fishing and commercial fishing. DPIRD also manages aquaculture operations, and fishing and aquaculture marine infrastructure such as moorings, jetties, rafts and pontoons.

The FRMA also allows for the management of marine tourism operations and related marine tourism infrastructure such as floating, fixed overnight accommodation.

Commercial fishing

Commercial fishing in the Abrolhos FHPA makes a valuable contribution to WA's economy through employment and supporting regional businesses, and the supply of local, sustainable and high-quality seafood to the community. Commercial fishing in the Abrolhos FHPA is strictly regulated and operators must be licensed.

[Section 2.4 Sustainable Fishing and Aquaculture](#) provides further information relating to the management of commercial fishing in the Abrolhos FHPA.

Fishing tour (charter) operators

The fishing tour industry provides visitors with an opportunity to enjoy world-renowned fishing-based activities in the Abrolhos FHPA. All fishing tour operators in WA must be licenced. The holder of a fishing tour operator's licence (FTOL) or a restricted fishing tour operator's licence (RFTOL) for the West Coast Zone of the WA Charter Fishery is permitted to operate in the Abrolhos FHPA.

[Section 2.4 Sustainable Fishing and Aquaculture](#) provides further information relating to the management of fishing tours in the Abrolhos FHPA.

Aquaculture

Most aquaculture sites in the Abrolhos FHPA are used for the growout of species such as coral, live rock, shellfish and finfish. The Midwest Aquaculture Development Zone (MWADZ) was declared in September 2017. The MWADZ includes 3000-hectares of water within the Abrolhos FHPA, which comprises separate northern and southern areas of 2200 and 800 hectares respectively. Currently, a person can apply for a new aquaculture licence for a site in the Abrolhos FHPA or transfer an existing licence.

[Section 2.4 Sustainable Fishing and Aquaculture](#) provides further information relating to the management of aquaculture.

Commercial marine tourism (non-fishing)

Commercial marine tour (non-fishing) operators provide the platform for many visitors to experience a wide range of extraordinary world-class marine-based tourism activities in the Abrolhos FHPA that they may not otherwise have the resources to experience. Marine-based activities such as surfing, kitesurfing, windsurfing, paddleboarding, snorkelling, diving and kayaking are popular. Other experiences include visiting cultural heritage sites and wildlife watching (e.g., birds, sealions, dolphins, whales and turtles). Visitors appreciate the remote beauty and wilderness and gaining knowledge of the local residents and their industries.

West Coast Zone fishing tour operators also offer eco-tourism activities to diversify their itinerary and to seek a broader range of clients.

[Section 2.3 Marine Tourism and Recreation](#) provides further information relating to marine tourism management.

Employment and supporting services

The businesses that operate in the Abrolhos FHPA employ hundreds of local staff. They also rely on several mainland regional services that provide bait, fishing gear and equipment, vessel repairs and maintenance.

1.2 Abrolhos FHPA key values, management focus and opportunities

[Table 3](#) provides a snapshot of the opportunities that can be realised based on the proposed management of the Abrolhos FHPA's key values. All sectors across government, fishing and aquaculture, tourism, heritage conservation and the community agree that improved management arrangements will lead to better outcomes for the Abrolhos Islands for the WA community.

Table 3: Abrolhos FHPA key values, management focus and opportunities

Key Values	Management Focus	Opportunities
<p><u>Natural</u></p> <ul style="list-style-type: none"> • Fish • Marine mammals • Marine reptiles • Seabirds and migratory shorebirds • Benthic habitat (coral, seagrass etc.) • Mangrove communities • Broader marine environment • Sense of place - natural wilderness 	<ul style="list-style-type: none"> • Retaining the rich marine biodiversity and amenity • Aquatic resource management • Managing interactions with marine mammals, reptiles and birds • Habitat protection • Biosecurity • Water quality • Land and sea interface (intertidal zone) impacts • Knowledge gaps • Visitor education • Public marine infrastructure 	<ul style="list-style-type: none"> • Working collaboratively with DBCA and DoT • Greater protection for marine species and key habitats • Improved biosecurity controls • Improved water quality requirements • Collaborative research and monitoring • Enhanced Abrolhos community stewardship • Enhanced education
<p><u>Cultural Heritage</u></p> <ul style="list-style-type: none"> • Shipwrecks • Guano mining heritage • Fishing heritage • Defence • Sense of place – history 	<ul style="list-style-type: none"> • Marine cultural heritage sites • Visitor education 	<ul style="list-style-type: none"> • Working collaboratively with WA Museum • Greater protection for historic guano mining jetties • Sharing the stories of cultural heritage with visitors • Greater community understanding of protecting marine cultural heritage sites

<p><u>Tourism</u></p> <ul style="list-style-type: none"> • Rich marine biodiversity • Extraordinary wildlife experiences • Remarkable shipwreck and maritime history • Recreational fishing • Diving and snorkelling • Surfing, stand-up paddleboarding, kayaking • Windsurfing and kitesurfing • Growing domestic tourism interest • Sense of place - remote and raw/rugged wilderness 	<ul style="list-style-type: none"> • Integrated, whole-of-government approach to tourism management across tenures • Safety at sea • Achieving a balance between providing visitor access and opportunities for tourism, while also protecting the key values • Establishment of a commercial marine tourism approval, licensing and accreditation system for the FHPA • Establishment of appropriate management controls to support the development of a quality tourism experience • Ensuring tourism development does not significantly impact the existing commercial fishing and aquaculture communities • Public marine tourism infrastructure to support key areas in the FHPA and National Park 	<ul style="list-style-type: none"> • Opportunities for wilderness fishing ventures • Enhanced legislation to improve management • Facilitation of the establishment of diverse, viable, and vibrant commercial marine tourism ventures • Provision of marine based opportunities for overnight tourism accommodation • Increased awareness of the Abrolhos and a greater appreciation of its unique values. • Regional economic benefits
<p><u>Fishing and Aquaculture</u></p> <ul style="list-style-type: none"> • Sustainable commercial, charter and recreational fishing • Local, family run businesses • Stewardship of aquatic resources • Economic benefit • Employment • Aquaculture development • Sense of place - unique workplace 	<ul style="list-style-type: none"> • Recreational fishing • Charter fishing • Commercial fishing • Aquaculture operations • Visitor education 	<ul style="list-style-type: none"> • Continuing sustainable world class fisheries and aquatic resource management • Ongoing access for fishing and aquaculture activities • Local (commercial fisher supplied) seafood • Improved regional economic benefits • Sustainable development of economic opportunities
<p><u>Abrolhos community</u></p> <ul style="list-style-type: none"> • Community culture • Social amenity and lifestyle • Long term and regular visitors to the FHPA • Strong understanding and stewardship of marine environment • Social and family connections • Sense of place – lifestyle, belonging 	<ul style="list-style-type: none"> • Retention of a vibrant, strong and engaged Abrolhos community • Sustainable coexistence of fishing, aquaculture and marine tourism • Safety at sea • Private marine infrastructure supporting commercial fishing and aquaculture operations • Visitor education 	<ul style="list-style-type: none"> • Ongoing access arrangements for FHPA users • Improvement in the quality of built structures in the FHPA • Diversification of industry sectors operating the FHPA • New and diverse sustainable economic opportunities • Improved education and safety at sea

1.3 Abrolhos FHPA management context

Background

The significant marine biodiversity values of the Abrolhos Islands were formally recognised in 1994 with the creation of four reef observation areas under the FRMA. The reef observation areas (ROAs) are located in waters adjacent to North Island, Beacon Island (Wallabi Group), Leo Island (Easter Group) and the Coral Patches reef complex (Pelsaert Group). While not sanctuary zones, commercial fishing, recreational fishing and aquaculture is prohibited in the ROAs, with the exception commercial rock lobster potting and recreational rock lobster potting or diving.

In 1998, the (then) 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 Abrolhos FHPA was created by the Minister for Fisheries in 1999 under section 115 of the FRMA for the purposes of:

- (a) the conservation and protection of fish, fish breeding areas, fish fossils or the aquatic eco-system
- (b) the culture and propagation of fish and experimental purposes related to that culture and propagation
- (c) the management of fish and activities relating to the appreciation or observation of fish.

The Minister is empowered to regulate any matter necessary for the protection or management of the Abrolhos FHPA pursuant to section 120 of the FRMA⁶. There are a range of protections currently in place to conserve and protect aquatic organisms, habitat and resources within the FHPA, as discussed in further detail in this draft management plan.

A management plan entitled *The Houtman Abrolhos Islands Management Plan, Fisheries Management Paper No. 260*, was released in November 2012. The 2012 management plan applied to the Abrolhos Reserve (which, prior to the National Park included all islands) and the FHPA. Once finalised, this plan, along with the *Houtman Abrolhos Islands Class A Reserve Management Plan 2022 – 2032*, will replace the existing *Houtman Abrolhos Islands Management Plan 2012*. The approved management plan will remain in place until it is formally reviewed and updated.

The Aquatic Resources Management Act 2016 (ARMA) will replace the FRMA and the *Pearling Act 1990* to become the primary legislation used to manage fishing, aquaculture, pearling and aquatic resources in WA. Considerable work continues towards implementing the ARMA. This will be a once-in-a-generation change that will provide a modern, innovative framework that will create a sound basis for effective, efficient and integrated fisheries and aquatic resource management for decades to come. ARMA is based on the principles of Ecologically Sustainable Development (ESD) and will provide the legal framework for improved governance (Gaughan and Santoro 2021).

It is envisaged that new, separate regulations for the Abrolhos Reserve and Abrolhos FHPA will be developed under the ARMA.

⁶ <https://www.legislation.wa.gov.au>

Whole of government management

In addition to the FRMA (and ARMA in the future), all relevant state legislation applies to the waters of the Abrolhos FHPA. In addition to DPIRD, there are number of other state government agencies with legislative responsibility in the Abrolhos FHPA including:

- Department of Planning, Lands and Heritage
- Department of Biodiversity, Conservation and Attractions
- WA Museum
- Department of Transport
- Department of Water and Environmental Regulation (DWER)
- Department of Health (DoH)
- City of Greater Geraldton
- WA Police Force
- Department of Fire and Emergency Services and State Emergency Management Committee

Department of Biodiversity, Conservation and Attractions (DBCA)

DBCA delivers services to support management of the National Park in accordance with the *Conservation and Land Management Act 1984* (CALM Act) and the *Biodiversity Conservation Act 2016* (BC Act). DBCA has primary responsibility for protecting National Park values and facilitating land-based tourism and recreation experiences for the community. Under the BC Act, DBCA are also responsible for the protection of threatened species. This includes threatened fauna species (which includes marine species) across all tenures (including the Abrolhos FHPA).

Western Australian Museum (WAM)

WAM is responsible for management of underwater cultural heritage and maritime archaeological sites in WA waters under the *Underwater Cultural Heritage Act 2018* (Commonwealth) and *Maritime Archaeology Act 1973* (State). WAM works with DBCA and DPIRD in delivering its services related to protecting, managing and interpreting the 'Batavia shipwrecks and survivor camps 1629' National Heritage listed site under the *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth), which has its own heritage management plan.

Department of Transport (DoT)

DoT has 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 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.

City of Greater Geraldton (CGG)

The CGG local government area is located approximately 450kms north of Perth. Bound by the shires of Irwin and Mingenew to the south, Yalgoo to the east, and Chapman Valley to the north, the CGG covers 12,625 km² and is the Local Government Authority for the Abrolhos Islands. CGG is responsible for administering State and local law relevant to the Abrolhos Reserve and Abrolhos FHPA, particularly in relation to emergency management, building, waste and wastewater.

Abrolhos Islands planning framework

The State Government's Strategic Direction outlines key management priorities and initiatives across the land and waters of the Abrolhos under the following key themes: nature conservation and cultural heritage protection; tourism; sustainable fisheries and aquaculture; Abrolhos community; and governance. The Strategic Direction advocates development of a governance framework built on collaborative partnerships across key government agencies. This draft plan is informed by the Strategic Direction, together with management plans for the National Park and Abrolhos Reserve.



Figure 2: Planning Framework for the Houtman Abrolhos Islands

Commonwealth legislation

There are several Commonwealth government agencies that administer legislation relevant to the marine environment in, and adjacent to, the Abrolhos FHPA. These agencies are responsible for management relating to protection of marine species and habitats, commonwealth marine parks, vessels and operators, safety at sea, marine pollution, maritime heritage and mining such as:

- Australian Maritime Safety Authority (AMSA)
- Department of Agriculture, Water and the Environment (DAWE)
- Parks Australia
- Civil Aviation Safety Authority (CASA)
- Department of Industry, Science, Energy and Resources

As Australia's national regulatory body, AMSA promotes maritime safety, protection of the marine environment and combats ship-sourced pollution. AMSA also provides the infrastructure for safety of navigation in Australian waters and maintains a national search and rescue service for the maritime and aviation sectors. DAWE is responsible for ensuring protection for marine environments, conserving biodiversity and delivers the Australian Government's marine conservation priorities in accordance with the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Parks Australia manage 58 marine parks which are all located within Commonwealth waters including the Abrolhos Marine Park (Figure 3). The Commonwealth Abrolhos Marine Park lies to the north, west and south of the Abrolhos FHPA and covers 88,060 km², with depths from less than 15 m to 6000 m (average depth of 3,796 m). It has National Park, Habitat Protection, Multiple Use and Special Purpose zones.

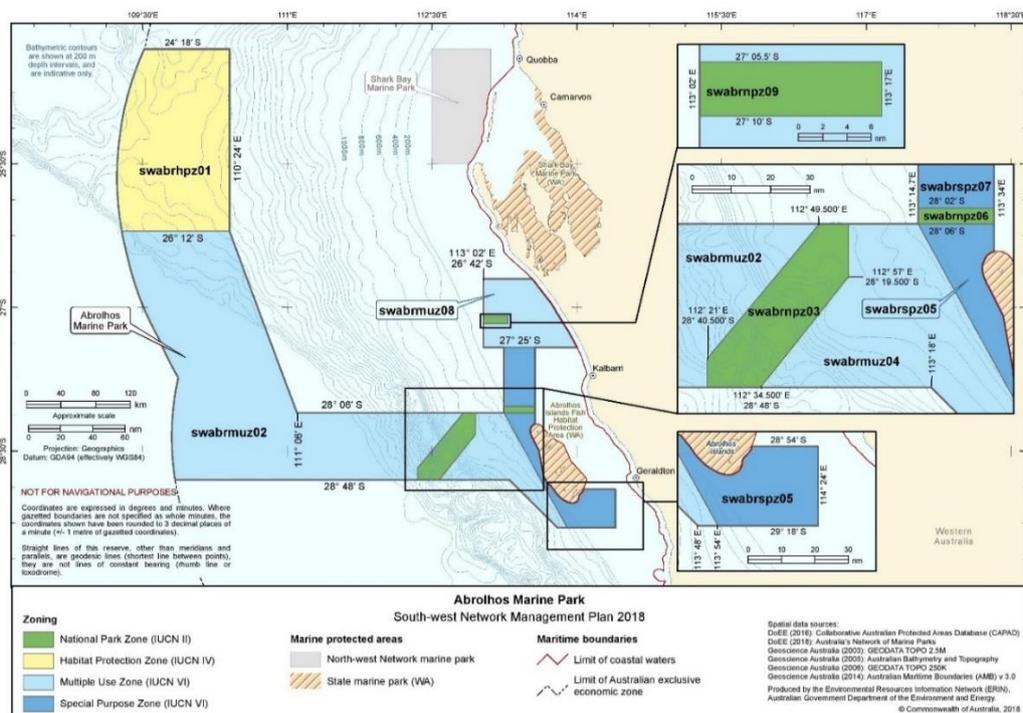


Figure 3- Commonwealth Abrolhos Marine Park⁷

⁷ <https://parksaustralia.gov.au/marine/parks/south-west/abrolhos/>

International obligations

Under the United Nations Convention on the Law of the Sea (UNCLOS), Australia has rights and responsibilities over 16 million square kilometres of ocean – more than twice the area of the Australian continent. Australia is signatory to several international treaties covering shipping, marine pollution and hazardous waste, safety at sea, underwater cultural heritage, biological diversity, trade of endangered species, migratory species protection, climate change and fishing. These obligations are recognised in Commonwealth and State law and apply to the Abrolhos FHPA. Further information regarding these treaties is provided on the Department of Foreign and Affairs and Trade's website⁸.

Stakeholders

The most important group with a stake in the Abrolhos FHPA is the WA community. The FHPA is a state asset for all Western Australians, and it is essential that access and activities are managed sustainably and appropriately to benefit current and future generations of the entire community. Within the WA community, there are several sectors with an interest in the Abrolhos FHPA including:

- Commercial fishers, the WA Fishing Industry Council and industry associations
- Aquaculture operators, the Aquaculture Council of WA
- Recreational fishers, Recfishwest
- Fishing tour (charter fishing) operators, Marine Tourism Association of WA
- Recreational boat owners, Boating WA
- Camp owners (Abrolhos Islands Body Corporate members)
- Tourists and regular visitors
- Marine tourism (non-fishing) operators
- Tourism WA
- Tourism Council of WA
- Local industry representatives
- Conservation and heritage groups
- Marine safety and volunteer rescue services
- Researchers and research institutions

Abrolhos Islands Stakeholder Engagement Project 2021

A comprehensive independent stakeholder engagement project involving many of the sectors listed above was undertaken during 2021. The outcomes of this community engagement process are outlined in the *Abrolhos Reserve and FHPA Consultation Report (2022)* and have informed the management objectives and actions in this draft management plan.

A submission from the Marine Tourism Association of WA (representing licenced fishing tour (charter fishing) operators) was provided as part of this engagement project and has been considered by DPIRD in this draft management plan.

⁸ <https://www.dfat.gov.au/international-relations/themes/environment-sea-law/>

The community engagement process illustrated that there is much about the future management of the Abrolhos FHPA that all stakeholders agree on. Equally, there are some matters where there are diverse views.

This draft management plan has addressed these challenges by being deliberately bold, progressive and future thinking; and has asked the question how the Abrolhos FHPA should be best positioned for the next generation of Western Australians. Future planning and management for strategic priorities in the Abrolhos FHPA will consider the findings of the report, in addition to submissions received during the public comment period for this draft management plan.

Marine research and monitoring

DPIRD uses both fishery dependent (catch and effort information) and independent data (research project, monitoring and assessment of stocks) to inform the management of aquatic resources and ecological attributes within the Abrolhos FHPA, and to further guide the development of future science and monitoring plans. DPIRD has completed a fisheries research report entitled *Houtman Abrolhos Islands Fish Habitat Protection Area: A Summary of Marine Resource Use and Ecological Attributes* (FRR 321) which has informed this draft management plan. The report provides a summary of the DPIRD data specific to the Abrolhos FHPA on marine resource use (e.g., aquaculture, commercial, recreational and fishing (charter) tour operations) and ecological attributes (e.g., coral reef health, environmental data, relative fish abundance, habitat mapping).

The data summarised in the FRR 321 for fisheries or industries and their specific association to the Abrolhos FHPA does not replace existing fishery wide stock assessments nor provide detailed analysis of fisheries or species stock structure or status. Detailed information on biology, stock structure and status and management arrangements of species, fisheries, industries or broader aquatic resources can be obtained in the annual *Status Reports of the Fisheries and Aquatic Resources of Western Australia (State of the Fisheries)*⁹.

⁹ <http://www.fish.wa.gov.au/About-Us/Publications/Pages/State-of-the-Fisheries-report.aspx>

Performance assessment

All proposed actions in this draft management plan have been prioritised with timeframes for implementation (refer to [Appendix 1](#)). Fifteen management objectives have been developed for the Abrolhos FHPA and are summarised in Appendix 2. Progress towards achieving the objectives and timeframes in the finalised management plan will be demonstrated by regular monitoring and evaluation to investigate the effectiveness of the management actions and to identify opportunities for improvement. The final plan will be subject to an external mid-cycle review commencing in 2027.



Image 2- Sunset colours, Rat Island Easter Group. Credit: DPIRD, M Killick

2. Strategic Priorities

2.1. Nature Conservation and Protection

Natural values

Aquatic organisms, resources and habitats

The Abrolhos FHPA is of importance for its diverse and unique range of temperate and tropical fish and marine aquatic species, significant commercial and recreational fisheries, aquaculture and marine tourism. With its southern geographical location (28 to 29° S) and the influence of poleward flowing Leeuwin Current, which carries warm tropical waters southward along the WA coast, the Abrolhos FHPA supports the southernmost coral reef system in the Indian Ocean and one of the highest latitude coral reef systems in the world.



Image 3- Baldchin groper (*Choerodon rubescens*).
Credit: DPIRD, Shannon Conway.

Up to 389 species of finfish have been reported in the Abrolhos FHPA, with a mixture of approximately 66% tropical, 21% warm temperate and 13% subtropical species. Common demersal (bottom dwelling) species at the Abrolhos FHPA include groper (e.g., baldchin and eightbar groper), dhufish, emperors (e.g., redthroat and spangled emperor), snappers (pink, stripey, rosy and moses snapper), rockcods (e.g., breaksea and rankin cod), coral trout and sweetlips.

Nearshore species include buff bream, mullet, trevallies, whiting, garfish, longtoms and barracuda. Smaller colourful reef fish add to the beauty of the coral reefs such as damselfish, butterflyfish, cardinalfish, wrasse, porcupine fish and parrotfish. Seahorses and pipefish (Syngnathids) can be seen residing in seagrass and macroalgae habitats.

Pelagic (water column) species include mackerels (e.g., spanish, school, grey and shark mackerel), tunas (e.g., bigeye, longtail, yellowfin and mackerel tuna), yellowtail kingfish, amberjack, cobia and samsonfish. Species of sharks found in the Abrolhos FHPA include port jackson, wobbegong, common blacktip, dusky, grey nurse, white, lemon, carpet, bull, sandbar and tiger sharks. Pelagic migratory shark species can also be found, including hammerhead, oceanic white tip, mackerel, thresher and whale sharks. Skates and rays include short-tail (smooth) stingrays, manta and shovel nose rays are also found.



Image 4- Common coral trout (*Plectropomus leopardus*), Goss Passage, Wallabi Group. Credit: DPIRD, Shannon Conway

Over 492 mollusc species have been recorded in the Abrolhos FHPA. Molluscs include octopus, cuttlefish and squid (cephalopods), saucer scallops, oysters and clams (bivalves) and gastropods including conch, whelk, cone and cowry shells. Nudibranchs and sea hares are also included in the mollusc group of marine fauna.

Over 172 echinoderm species have been identified in the Abrolhos FHPA, including sea cucumbers (holothurians), featherstars and sea lillies (crinoids), sea stars (asteroids), brittlestars (ophiuroids) and sea urchins (echinoids).

The Abrolhos FHPA also play a vital role as a major habitat for the spawning stock of western rock lobster (*Panulirus cygnus*). Eggs and larvae from the Abrolhos FHPA and the deep-water refuges further north along Big Bank are thought to be distributed by ocean currents along the west coast. Other crustaceans found in sand habitat include western king and coral prawns and crabs.

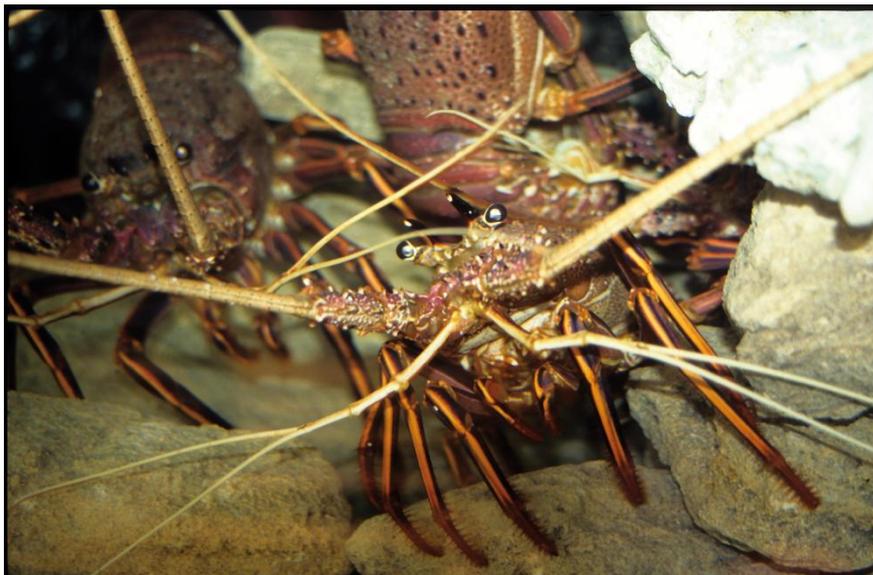


Image 5- Western rock lobster *Panulirus cygnus*. Credit: DPIRD

The coral fauna of the Abrolhos FHPA is diverse for a high-latitude reef system, with over 180 species from 42 genera discovered so far. The hard (Scleractinids) corals are reef builders and include branching, encrusting, plate corals and brain corals, with the Abrolhos FHPA recognised for its high percentage of branching *Acropora* species.



Image 6- *Acropora* sp. Credit: DPIRD, Shannon Conway

The Abrolhos FHPA is also home to the Octocorals, including fleshy soft corals - gorgonian (sea whip) corals, organ pipe corals, sea fans and sea pens. Sea anemone (Actinariid) communities are common including the bubble tip anemone which is home to the Clark's anemone fish. Sea sponges can also be found attached to rocky substrate, either by a holdfast or an encrusting mass. Most sea sponges in the Abrolhos FHPA are 'demosponges' although some calcareous sponge species can be found. Tunicates (ascidians) known as sea squirts can also be found attached to rocky substrate.

Around 295 species of marine plants have been recorded in the Abrolhos FHPA including a mixture of species from both tropical and temperate origins. Many marine plant species are at the northernmost or southernmost extent of their distribution, with almost 17% being endemic to the area.



Image 7- Coral and algae mix, Pelsaert Group. Credit: DPIRD, Shannon Conway

Brown, red and green macroalgae species mix with tropical coral communities in a unique display of marine biodiversity. Seagrasses are flowering plants and are generally located in protected, shallow sand and silt habitats up to 15 metres in depth. The predominant species of seagrasses occurring in the Abrolhos FHPA include *Posidonia australis*, *Amphibolis* sp. and *Halophila* sp.



Image 8- Seagrass. Credit: DPIRD, Ann Storrie.

Marine biosecurity

Biosecurity refers to measures aimed at preventing the introduction and/or spread of organisms that are harmful to native animals and plants. The introduction and spread of marine species into and around WA waters through biofouling, or in a ship's ballast water, can harm fisheries, threaten healthy fish habitats and have widespread economic and health effects. All vessels travelling to, from and within, WA waters, regardless of their size or frequency of visits, pose a risk to the state's aquatic environment. Several marine pests have been identified in WA waters including:

- Asian green mussel
- American slipper limpet
- Asian basket clam
- Asian shore crab
- Black striped false mussel
- Chinese mitten crab
- Asian paddle crab
- Rapa or veined whelk
- Soft shell or long-necked clam
- Charru mussel

The marine pest, *Didemnum perlucidum*, also known as the white colonial sea squirt, is now widely established in many ports, marinas and other locations in WA. In 2015, *D. perlucidum* was identified on several pearling lines and moorings in the Abrolhos FHPA. A trial was undertaken to eradicate *D. perlucidum* but this was unsuccessful due to very heavy re-infection of treated infrastructure from newly discovered pearling lines, and lines below the safe diving depth of 30 metres.

Mangrove communities

Mangroves are coastal plants which live in the upper intertidal zone. A single mangrove species, the grey mangrove (*Avicennia marina*), occurs in the Abrolhos FHPA. The grey mangrove provides an important source of nutrients for marine food chains, in addition to habitat for both terrestrial and marine animals. Mangroves also protect the island shoreline from storm damage and erosion. Extensive stretches of mangroves can be seen on Pelsaert Island (Pelsaert Group), Wooded Island and Morley Island (Easter Group).



Image 9- Abrolhos mangrove community. Credit: DPIRD

Marine mammals, reptiles and sea/shorebirds

Dolphin species are present in the Abrolhos FHPA all year round. The most common species is the bottlenose dolphin (*Tursiops truncatus*), but other species found at the Abrolhos include striped (*Stenella caeruleoalba*) and common dolphins (*Delphinus delphis*).



Image 10- Dolphins in the Abrolhos FHPA. Credit: DPIRD, Ann Storrie.

The predominant whale species seen in the Abrolhos FHPA are the humpback and southern right whales. Sightings of humpback whales are between April and October each year, during their annual northward breeding migration and return journey to Antarctica.

The Abrolhos Islands also mark the northern-most habitat and breeding location of the Australian sea lion (*Neophoca cinerea*). Once abundant, the Australian sea lion is now classified as vulnerable under the BC Act and endangered under the EPBC Act. Australian sea lions feed on fish, western rock lobster, octopus and occasionally sea birds. They can dive to depths of up to 150 m in search of their prey. Often, they can be seen on sandy beaches throughout the islands.



Image 11- Australian sea lion (*Neophoca cinerea*). Credit: Shannon Conway.

Turtles are regularly observed in the Abrolhos FHPA. Resident green turtles forage in and around the Abrolhos FHPA reefs. Sea snakes are not residents in Abrolhos FHPA, but during strong winter storms they may be transported south from Shark Bay and further north.

The Abrolhos Islands are one of the most significant seabird nesting areas in the eastern Indian Ocean and are among Australia's most important sites for breeding seabirds. Schools of pelagic baitfish provide a ready source of food for significant colonies of noddies, shearwaters and terns, which breed and roost in the islands' mangroves, sand dunes and foreshores.

Broader marine environment and climate

The three main island groups are located on separate limestone platforms up to 36 m thick with deep channels between these. North Island, which is the northernmost island at the Abrolhos, is on the same carbonate platform as the Wallabi Group. Each platform has a fringing reef system, with a windward reef on the southern and western sides and a leeward reef on the eastern side. The majority of the islands in the Abrolhos have formed within the central lagoons or on the eastern reefs.

The Abrolhos FHPA has a history of higher nutrient levels than coastal waters at Geraldton. There are a number of theories for this, including nutrient upwelling (a phenomenon where dense, cooler and nutrient-rich water is driven from the depths toward the sea surface, replacing warmer, nutrient-poor surface water) and an abundance of seagrass detritus.

Tides alternate between diurnal and semi-diurnal (two tide cycles per day), though they are predominantly diurnal (one high tide and one low tide per day). The daily tidal range is low - about 0.8 metres between high and low tides.

Sea surface temperatures range between a monthly mean of 20° C in September and a maximum of 27.3° C in March. This is mainly due to the Leeuwin Current which runs in a southerly direction through the Abrolhos FHPA and brings warm tropical water to higher latitude reefs like those in the Abrolhos FHPA. Between the islands, ocean currents are highly variable. Because of its location near the edge of the continental shelf, bathed in the Leeuwin current, water temperatures in the Abrolhos FHPA are warmer than in coastal waters near Geraldton.

Whilst wave heights can average about two metres in the open ocean near the Abrolhos Islands, within the island groups they are lower, dampened by the shallow reefs and islands. Despite this, the Abrolhos FHPA is a high energy environment given the combination of wind and swell. The Abrolhos Islands are subject to strong winds, with calmer conditions mostly in autumn and early winter, coinciding with the peak visitation period. The prevailing winds are from a southerly direction, and these are strongest in summer. There is a weather station based on North Island which has been recording temperature and rainfall data since 2000.

Based on the data collected at North Island to date, the Abrolhos Islands receive a mean annual rainfall of 270 mm, with the majority falling between May and August. At least one mm of rain falls annually on average over 41 days, mostly between June and August. The warmest mean maximum air temperature of around 28°C is recorded in February and March, while the coolest mean maximum air temperature of 21°C is recorded in July and August. The minimum air temperature in winter can reach 15°C.

The Abrolhos Islands are occasionally subject to cyclone activity during the cyclone season from December to May, with more than half the recorded cyclones occurring between March and May. The most recent cyclone (Seroja) passed to the east of the Abrolhos Islands making landfall just south of Kalbarri in April 2021. Prior to this, cyclone Emma (Elaine) crossed the coast to the east of the Islands between Kalbarri and Geraldton on 18 March 1999 and cyclone Herbie made landfall at Denham on 21 May 1988.

Potential threats and impacts

Visitors arriving by private boat and clients of fishing charter and marine tourism operators seek to enjoy a diverse range of nature-based experiences within the Abrolhos FHPA. Commercial fishers and aquaculture operators are undertaking activities in the FHPA all year round. Recreational and commercial activities in the Abrolhos FHPA must be appropriately managed to reduce risks to the natural values.

[Table 4](#) provides a summary of the potential threats and impacts on the natural values of the Abrolhos FHPA that may arise from boat-based users, camp owners and visitors accessing the National Park.

Table 4: Potential threats and impacts from Abrolhos FHPA users on natural values

Potential Threat	Impact to Natural Values	Agency Responsible
<p>Unmanaged increase in visitation and commercial marine tourism in the FHPA</p> <p>Unmanaged site selection, installation and use of marine infrastructure</p>	<ul style="list-style-type: none"> • Ecosystem disruption • Degradation and loss of marine habitat • Reduced water quality • Increased pressure on marine species and aquatic resources 	DPIRD
<p>Increased adverse interactions with endangered, threatened and protected species (protected fish, marine mammals, reptiles and shore/seabirds)</p>	<ul style="list-style-type: none"> • Physical interactions causing stress, injury and death • Lights and noise from boats, and marine and land-based facilities causing breeding disturbances and stress • Modified behaviour due to hand feeding 	DPIRD DBCA
<p>Untreated sewage discharge into the FHPA</p>	<ul style="list-style-type: none"> • Eutrophication at point source (excessive plant and algal growth) • Potential marine species health risk and bacterial/viral loading in shellfish 	DPIRD CGG DoH DoT DWER AMSA
<p>Hazardous material spills into the FHPA</p>	<ul style="list-style-type: none"> • Marine species health risk • Reduced water quality, pollution • Ecosystem structure and habitat disruption 	DPIRD DBCA DoT DWER AMSA
<p>Unmanaged disposal of biodegradable (e.g. food and fishing waste) waste into the FHPA</p>	<ul style="list-style-type: none"> • Modified behaviour of marine species • Trophic disturbance • Ecosystem disruption 	DPIRD DBCA AMSA
<p>Disposal of non-biodegradable waste into the FHPA</p>	<ul style="list-style-type: none"> • Wildlife entanglement leading to injury, stress, death • Ghost fishing • Reduced water quality, pollution • Degradation of the marine environment 	DPIRD DBCA AMSA
<p>Introduction of marine pests and disease</p>	<ul style="list-style-type: none"> • Adverse impacts on endemic/native species' populations and habitat • Ecosystem disruption 	DPIRD
<p>Unmanaged anchoring, illegal removal of coral for navigation purposes and use of benthic fishing gear (pots and trawling)</p>	<ul style="list-style-type: none"> • Loss and damage to priority benthic habitat • Degradation of the marine environment • Ecosystem disruption 	DPIRD

Unmanaged marine-based activities in key priority areas (snorkelling, diving, surfing, windsurfing, kitesurfing, kayaking, jet skis, beaching tenders)	<ul style="list-style-type: none"> • Damage to shallow benthic habitat (coral, seagrass, macroalgae) • Shoreline erosion and intertidal zone damage • Sea/shorebird disturbance • Sea lion disturbance • Damage to mangrove communities 	DPIRD DBCA
Unregulated landing of seaplanes and boat planes	<ul style="list-style-type: none"> • Noise • Disturbance, stress and injury to marine life and sea/shorebirds 	DPIRD DBCA CASA
Climate change and extreme weather events	<ul style="list-style-type: none"> • Damage/loss of vulnerable marine ecosystem • marine plant mortality • coral bleaching • fish kills • changes in species distribution, behaviour and breeding 	State and Commonwealth Governments
Gaps in knowledge of the impacts of users on FHPA values	<ul style="list-style-type: none"> • Inappropriate management measures leading to: <ul style="list-style-type: none"> • Ecosystem disruption • Degradation and loss of marine habitat • Reduced water quality • Increased pressure on marine species and aquatic resources 	State and Commonwealth Governments
Outdated FHPA visitor information	<ul style="list-style-type: none"> • Lack of awareness of the importance of protecting and conserving the marine environment • Reduced community stewardship • Inadvertent behaviour leading to adverse environmental outcomes 	DPIRD

Current and proposed management tools

There is a very clear stakeholder view that management of the natural values should include management of sewage discharge and waste, and Government investment in funding for ongoing research and monitoring programs to support management decisions.

Aquatic organisms, resources and habitats

The Minister for Fisheries is empowered to regulate any matter necessary for the protection or management of the Abrolhos FHPA pursuant to section 120 of the FRMA. This includes any activity that poses an unacceptable risk to the natural values of the marine environment. There is also power to prohibit persons or any specified class of persons from engaging in any fishing activity of a specified class under section 43 of the FRMA.

The Abrolhos FHPA is already recognised as a high priority area for aquatic organism, resource and habitat management. There are a range of closures and prohibitions relevant to the take of aquatic resources, including reduced commercial scalefish fishing effort and a prohibition on the use of commercial gillnets and longlines. Several

measures are in place to protect benthic (bottom dwelling) marine organisms that are critical to the marine ecosystem and vulnerable to overfishing in the Abrolhos FHPA.

Under the FRMA, the take of sea urchins, starfish, sea cucumber, gastropods and bivalves for a commercial purpose is prohibited unless a relevant commercial fishing authorisation is held. In addition, all persons are prohibited from taking, killing or destroying corals (Anthozoans and Hydrozoans), live rock or algae unless a relevant commercial authorisation is held. Hard (stony) corals in the Abrolhos FHPA are totally protected and must not be taken, except for small amounts for aquaculture broodstock and growout.

Many aquatic organisms occurring in the Abrolhos FHPA have also been listed as vulnerable, endangered, threatened or protected under international agreements, and Commonwealth and State legislation.

DPIRD adopts an ecosystem-based fisheries management (EBFM) approach to manage WA's aquatic resources (Gaughan and Santoro 2021). EBFM seeks to recognise ecological, social and economic values of aquatic resources at a bioregional level and assesses the risk of fishing activities and external drivers on aquatic resources and the broader marine ecosystem. A thorough appreciation of the nature and extent of the habitats a fishery operates across, and possibly impacts upon, is fundamental to the effective implementation of EBFM (de Lestang *et al.* 2019).

The management framework for aquatic resources in the Abrolhos FHPA is:

- risk based
- comprises a holistic approach to research, management (consultation, policy and legislation) and compliance/education; and
- monitored and reported to the community on a regular basis.

See [Section 2.4 Sustainable Fisheries and Aquaculture](#) for more detailed management of fishing and aquaculture activities in the Abrolhos FHPA.

DPIRD carries out long term habitat and ecosystem research in the Abrolhos FHPA relating to reef monitoring, habitat mapping, relative fish abundance and environmental monitoring. More information regarding this work can be found in FRR 321. DPIRD has also undertaken research to study the impacts of climate changes on fish and aquatic resources, and implications for future management (Caputi *et al.* 2015). Some WA fish stocks such as invertebrates are highly sensitive to extreme events and climate change and have been, or are, impaired by these events. It is therefore important that EBFM recognises climate change impacts when considering fishing management controls.

The establishment of ROAs and FHPAs provides DPIRD with the ability to recognise priority marine areas and regulate fishing and other marine-based activities in those areas to the high - water mark. ROAs have an important role to play in protecting diverse key marine benthic habitat types in the Abrolhos FHPA from marine-based activities that present a risk to those habitats. They also provide for other activities relating to the appreciation and observation of fish and fish habitat (see [Section 2.3 Marine Tourism and Recreation](#)).

The four existing ROAs were established in 1994 (prior to the Abrolhos FHPA in 1999) under section 43 of the FRMA, however their existing management arrangements do align with the purposes of FHPAs as set out in section 115 of the FRMA including:

- conservation and protection of fish, fish breeding and the aquatic ecosystem
- the management of fish and activities relating to the appreciation or observation of fish

The ROAs account for 2.6% (64.3 km²) of the waters of the Abrolhos FHPA. While fishing is restricted in ROAs, they are not sanctuary zones¹⁰. The ROAs are located near:

- North Island
- Beacon Island (Wallabi Group)
- Leo Island (Easter Group)
- Coral Patches (Pelsaert Group)

The ROAs primarily cover shallow waters 0 - 10 metres in depth but also extend into deeper water. In the cases of Beacon and Leo Island ROAs, these areas are adjacent to value rich islands that require greater protection. Commercial fishing, recreational fishing and aquaculture activities are prohibited in ROAs, with the exception commercial rock lobster potting and recreational rock lobster potting or diving.

The existing ROA legislation is focused around managing fishing activities. It is desirable to move the management arrangements for ROAs to the *Fish Resources Management Regulations 1995* (the Regulations) to allow for improved management of both fishing and non-fishing activities in ROAs.

Given the existing ROAs were originally established over 25 years ago, DPIRD proposes to review the broader principles and objectives of ROAs in collaboration with stakeholders. The review will include an evaluation of the existing ROA boundaries and locations and will consider the need for additional ROAs to further protect benthic habitat.

Anchoring within ROAs (and the wider Abrolhos FHPA) will only be permitted in sand/mud habitat with an appropriate anchor (e.g., a Danforth style sand anchor). Anchors should also be positioned to protect adjacent reef from scouring by anchor chains and ropes across their entire swing. Boat access to sand/mud habitat for anchoring in the North Island and Coral Patches ROAs is limited. Alternative mooring and anchoring areas for both ROAs are proposed in the Abrolhos FHPA Draft Zoning Scheme.

DPIRD manages the location and installation of marine infrastructure such as jetties, moorings and fixed floating platforms partly to manage the risk to benthic habitats in the Abrolhos FHPA. During 2021, DPIRD engaged the services of Wavelength Consulting to undertake a mooring review and analysis in the FHPA. The outcomes and recommendations of the final report have been used to guide the management actions aimed at further protecting benthic habitat from impacts of anchoring and moorings.

Please also refer to [Section 2.3 Marine Tourism and Recreation](#) and [Section 2.5 Abrolhos Community](#) for marine infrastructure management relating to those strategic priorities.

¹⁰ Sanctuary zones are areas defined within marine parks and reserves and are managed by DBCA.



Image 12- rock lobster pot deployed on coral/algae habitat. Credit: DPIRD, Dave Abdo.

Marine biosecurity

DAWE¹¹ coordinates the management of threats to marine biosecurity at a national level.¹² DAWE is responsible for the *National Marine Pest Plan 2018 – 2023*, which applies to vessels, aquaculture, ports and marinas and offshore infrastructure. There are also national biofouling management guidelines for recreational vessels in place.

DPIRD administers marine biosecurity legislation in WA and is responsible for aquatic biosecurity policy, managing the translocation of wild fish, incident response, education, research and surveillance. DPIRD aims to minimise the negative impacts of aquatic pests and diseases in WA through prevention, eradication, containment and targeted asset protection actions.

DPIRD uses a range of measures to reduce the risk of the introduction of marine pests to the Abrolhos FHPA, and the introduction of terrestrial pests from boats to the Abrolhos Reserve. Education is vital, particularly when identifying and reporting potential marine pest species and increasing awareness of keeping vessels, marine infrastructure and gear free of biofouling.

The Statewide Array Surveillance Program (SWASP) is run jointly by port authorities and DPIRD. The SWASP aims to minimise the risk of introduced marine species into WA waters from visiting ships and is an international leader in the use of molecular techniques.

This process has increased the speed of monitoring and helped researchers identify new native marine species. It not only helps with the quicker detection of any foreign pests, but also the accuracy and price of identification. DPIRD also researches technologies to assist with the detection, management and control of introduced aquatic pests.

¹¹ www.agriculture.gov.au/

¹² <https://www.marinepests.gov.au>

DPIRD has capacity to diagnose known diseases and identify emerging disease threats associated with aquaculture and wildstocks. The fish health research laboratory provides the capacity to provide fish health research services to industry, in conjunction with State fish health diagnostic capacity.

Upon commencement of the ARMA, DPIRD will seek to implement a Marine Biosecurity Management Plan for the Abrolhos FHPA to assist in the prevention and response to marine pest and disease.

This draft plan does not seek to address specific aquatic biosecurity measures for the various sectors operating in the Abrolhos FHPA. The management of marine activities as they relate to aquatic biosecurity management objectives are managed under separate arrangements.

Marine mammals, reptiles, shore/seabirds and mangroves

The *Biodiversity Conservation Act 2016* (BC Act) manages marine mammals, reptiles, birds and listed priority flora such as mangroves and is administered by DBCA. DAWE administers the EPBC Act and Australia's marine biodiversity obligations under international agreements. DPIRD will support DBCA to maintain state and national recovery plans for endangered, threatened and protected (ETP) flora, marine species and sea/shore birds in the Abrolhos FHPA, and will work to minimise adverse interactions with fauna posed by FHPA users such as lights¹³ and noise.

The FRMA and associated fishing legislation includes measures around fishing gear and activities to reduce risks to ETP species such as some species of fish, coral, aquatic plants, marine mammals, reptiles and seabirds. The risk posed by fishing on ETP species is assessed annually by DPIRD and through regular third-party accreditation processes for fisheries in the Marine Stewardship Council (MSC) program and all commercial fisheries requiring export approvals under the EPBC Act.

Broader marine environment

The International Convention for the Prevention of Pollution from Ships (MARPOL Convention)¹⁴ was developed by the International Maritime Organisation (IMO), of which Australia is a signatory. The IMO has legislated for pollution from ships travelling the world's oceans. It covers all forms of marine pollution, such as:

- Oil
- Noxious liquid substances
- Harmful substances in packaged form
- Sewage
- Garbage (both biodegradable and non-biodegradable)
- Air pollution

AMSA administers the *Protection of the Sea (Prevention of Pollution from Ships) Act 1983* (Cwth) and is responsible for ensuring the MARPOL Convention requirements¹⁵ are adhered to in Australian waters. AMSA releases marine orders relating to a range of marine environmental matters, all of which apply to Australian vessels.

¹³ <https://www.awe.gov.au/environment/biodiversity/publications/national-light-pollution-guidelines-wildlife>

¹⁴ <https://www.amsa.gov.au/marine-environment/marine-pollution/marpol-and-its-implementation-australia>

¹⁵ www.amsa.gov.au/marine-environment/marine-pollution/discharge-standards

The following therefore applies to vessels operating within the Abrolhos FHPA (i.e., within 3 nautical miles from land):

- oil and all oily mixtures to be retained onboard for on shore disposal
- noxious liquid substances to be retained onboard for disposal
- all non-biodegradable garbage to be retained onboard for disposal
- no food waste discharge permitted
- fresh fish waste, including shellfish, produced during fishing or aquaculture activities are not considered as garbage and may be discharged
- **small** quantities of food released directly into the sea is permitted for the specific purpose of fish feeding in connection with fishing or tourist operations in certain areas
- no vessel sewage discharge permitted
- grey water that does not include noxious liquid or oil is permitted to be discharged

Further information regarding these requirements can be found on AMSA's website. DAWE also administers legislation relevant to marine water quality such as the *Environmental Protection (Sea Dumping) Act 1981* (Cwth).

Regulations can be made under the FRMA to protect the Abrolhos FHPA from activities that impact on water quality or have to potential to pollute the marine environment. There are also a range of state government agencies with legislative obligations to regulate discharges, waste, wastewater and pollution in the Abrolhos FHPA including:

- DoT
- DBCA
- DWER
- Department of Health (DoH)

CGG as the Local Government Authority for the Abrolhos Islands administers state and local laws relevant to health, sewage and disposal of effluent.

DPIRD will work with DBCA to manage FHPA users' impacts on the terrestrial environment. Unmanaged visits to the national park may result in increased loss and damage to habitat, dumping of rubbish, adverse interactions with terrestrial fauna and terrestrial biosecurity incidents such as introduced pests, disease, non-native species and pets.

Management objectives and proposed actions

The proposed actions in the table below have been developed to achieve management objectives and strategic priorities for nature conservation and protection in the FHPA, and to manage the impacts from FHPA users in the Abrolhos Reserve and National Park. DPIRD's primary objective is to protect and conserve natural values from the threat risks and impacts listed in [Table 4](#). The management actions below have also been informed by the outcomes of consultation undertaken for the Stakeholder Engagement Project during 2021.

Management Objectives	Proposed Management Actions
<p><i>Manage the impacts of FHPA users and marine-based infrastructure on the natural values of the Abrolhos Islands FHPA.</i></p>	<ol style="list-style-type: none"> 1. In collaboration with stakeholders, review the broader principles, objectives and locations of ROAs in the Abrolhos FHPA as they relate to achieving nature conservation and protection outcomes. 2. Work with DoT to consider further educational tools to improve FHPA users' knowledge of existing Commonwealth and State legislation managing marine waste, pollution and vessel sewage discharge in the FHPA. 3. Move ROA legislation to the regulations and introduce a prohibition on anchoring in all marine benthic habitat other than sand/mud in the FHPA. 4. Include identified high-risk marinas/ports that home berth vessels visiting the Abrolhos FHPA in the Statewide Array Surveillance Program (SWASP) (where not included already) and include the Abrolhos FHPA in the SWASP. 5. Update education material to promote community and visitor awareness and understanding of the important natural values of the Abrolhos FHPA. 6. Investigate ways to improve the collection of data and information as it relates to FHPA users accessing the marine environment. 7. Review the current marine biosecurity requirements for Abrolhos FHPA users and develop an Abrolhos FHPA Marine Biosecurity Plan following the commencement of ARMA. 8. Develop a Marine Research and Monitoring Plan to support protection and conservation the natural values of the Abrolhos FHPA. 9. Ensure all new public and private marine infrastructure is located in accordance with the Abrolhos FHPA Zoning Scheme and installed, designed and used in such a way as to reduce risks to the Abrolhos FHPA marine ecosystem and habitat.

Management Objectives	Proposed Management Actions
<p><i>Work collaboratively to identify and manage the impacts of FHPA users on the natural values and broader environment of the Reserve and National Park.</i></p>	<ol style="list-style-type: none"> 10. Support DBCA to improve the collection of data and information for FHPA users accessing the National Park. 11. Support DBCA to minimise the disturbance on terrestrial natural values caused by (1) the location and use of marine-based infrastructure adjacent to the National Park and (2) FHPA users accessing the National Park. 12. Support the development of biosecurity and visitor education requirements to manage risks associated with weed and pest animal introductions in the Reserve and National Park.

2.2 Cultural Heritage Protection

Cultural heritage values

Shipwrecks

Vessels have traversed up and down the coast of WA for more than 400 years. Many ships and lives have been lost over this time and it is estimated that up to 50 vessels may have been wrecked within the Abrolhos FHPA, some still to be located.

DPIRD has some responsibility in managing cultural heritage sites within the Abrolhos FHPA (including intertidal areas).

Batavia

Batavia was a Dutch East India Company (VOC) vessel on its way from the Cape of Good Hope to Batavia (modern day Jakarta). On 4 June 1629, *Batavia* hit Morning Reef in the Wallabi Group. The majority of its 316 passengers and crew made it ashore to some of the small islands on the eastern side of the Wallabi Group.

Jeronimus Cornelisz, who had been left in charge, had recruited a small band of men, who then brutally murdered 125 of their fellow survivors. Some of the victims were buried on what is now Beacon Island. In the end, after it was all over, out of the 316 people aboard *Batavia*, only 116 survived. The wreck of *Batavia* was discovered in 1963 and extensive archaeological surveys and excavations have since been conducted, both in the water and on land. Most of the artefacts have been removed and conserved by the WA Museum.



Image 13- Anchor from *Batavia* with schooling buffalo bream (*Kyphosus gladius*) above, Beacon Island ROA, Easter Group. Credit: DPIRD, Shannon Conway.



Image 14- Cannon from *Batavia*, Beacon Island ROA, Easter Group. Credit: DPIRD, Shannon Conway.

Zeewijk

Zeewijk was also a VOC vessel sailing from the Cape of Good Hope to Batavia. *Zeewijk* hit Half Moon Reef in the Pelsaert Group on 9 June 1727. Many of the crew established a camp on nearby Gun Island. Using materials salvaged from their stricken ship, the crew of *Zeewijk* constructed a rescue sloop - the first ocean-going vessel built in Australia. On the 26 March 1728, the remaining 88 survivors from the original 212 crew set sail for Batavia in the rescue sloop. Only 82 crew survived to reach Batavia on 30 April 1728.

Table 5: Significant ships wrecked within the Abrolhos FHPA more than 75 years ago

Significant shipwreck	Year Lost	Location	Cargo/Activity
<i>Batavia</i>	1629	Morning Reef Wallabi Group	Bullion, goods and silver
<i>Zeewijk</i>	1727	Gun Island Pelsaert Group	Goods, coin
<i>Ocean Queen</i>	1842	Half Moon Reef Pelsaert Group	Coin
<i>Venus</i>	1851	Half Moon Reef Pelsaert Group	Mail
<i>Hadda</i>	1877	Beacon Island Wallabi Group	Guano mining
<i>Marten</i>	1878	Pelsaert Island Pelsaert Group	Voyage - Fremantle to Darwin
<i>Ben Ledi</i>	1879	Pelsaert Island Pelsaert Group	Voyage - Sydney to Calcutta
<i>Windsor</i>	1908	Pelsaert Island Pelsaert Group	Sandalwood

Many vessels involved in fishing and guano mining during the twentieth century ran afoul of the reefs including *Columbia* in 1929, off Rat Island. One man from *Columbia*, Giuseppe Benvenuto, drowned trying to swim to shore. His gravestone can still be seen on Rat Island.

Guano mining

When the Abrolhos were surveyed in 1840 by Commander John Wickham and Lieutenant John Lort Stokes in HMS Beagle, their report identified guano resources on the islands. Guano is a natural fertiliser, predominantly made up of bird droppings, which was highly sought after in Europe and the United States at the time. The first commercial shipment of guano to leave the Abrolhos was in 1844. The commercial guano industry at the Abrolhos was developed by the Pelsaert Fishing Company from 1847, mining guano at a number of islands. Guano continued to be mined at the Abrolhos until 1946. The remnants of buildings, jetties and tramways used for guano mining are still visible on Rat Island, Gun Island, Pelsaert Island and Pigeon Island. At least five guano ships ran afoul of the reefs and sand bars in the Abrolhos, including the German barque *Hadda* in 1877.

Fishing

In 1840, Commander John Wickham of HMS Beagle noted the plentiful and excellent quality of fish available in any quantity. Commercial fishing targeting finfish and shellfish and sealing and whaling operations commenced at the Abrolhos Islands during the 1840-50s. The Pelsaert Fishing Company operated from Middle Island in the Pelsaert Group. The Abrolhos Islands were noted as a potential commercial western rock lobster fishing site by the WA Government as early as 1904.



The western rock lobster industry started to develop in the 1920s, increasing during and after World War II, as a result of a decision by the Defence Foodstuffs Administration in 1941 to supply canned lobster to canteens for the armed forces. Some of the first fishers' camps on the islands were constructed around this time and parts of these original camps still remain today. Today, the western rock lobster is WA's most valuable commercial fishery.

Generations of families have made the Abrolhos Islands their home, building a longstanding social community and lifestyle which captures the essence of the unique fishing cultural heritage at the Islands (see [Section 2.5 Abrolhos Community](#)).

Image 15- Stone jetty still used by commercial fishers on Rat Island, Easter Group. Credit: DPIRD, N Moore.

Tourism

The Abrolhos were considered ideal for tourism and recreation in the first half of the twentieth century. Utilising the buildings constructed by the British Phosphate Commission for their guano mining operations during World War II, a fishing and tourist resort was established on Pelsaert Island. This resort was not particularly successful, due to the lack of fresh water supplies. The majority of the resort has been demolished, though the construction materials can be seen forming parts of fishing shacks on other islands in the Pelsaert Group.

Defence

In 1942, during World War II, the Royal Australian Air Force established No. 1 Spotting WT Post on East Wallabi Island near Turtle Bay, including the first air strip on East Wallabi Island. This was manned constantly by staff and cadets from the No. 4 Service Flying Training School at Geraldton until March 1943. East and West Wallabi Islands were also used for training exercises during World War II.

Native title

There is no Aboriginal native title at the Abrolhos Islands but the adjacent mainland is part of the Yamatji Nation¹⁶.

Potential threats and impacts

Table 6: Potential threats and impacts from Abrolhos FHPA users on cultural heritage values

Potential Threat	Impact to Cultural Heritage Values	Agency Responsible
Increased visitation to marine-based archaeological sites	<ul style="list-style-type: none">Anthropogenic damage or loss of sites or artefacts	WAM DPIRD
Illegal take of marine artefacts	<ul style="list-style-type: none">Gaps in collection/story associated with artefactsCommunity unable to appreciate artefacts	WAM DAWE
Lack of visitor reports of new marine-based sites and artefacts	<ul style="list-style-type: none">No expert identification and assessment of artefactsGaps in collection/story associated with artefactCommunity unable to appreciate artefacts	WAM DPIRD
Increased frequency of extreme weather events (storms, cyclones etc) as a result of climate change	<ul style="list-style-type: none">Environmental damage or loss of sites or artefactsSite or artefacts lost for future generations	State and Commonwealth Governments

¹⁶ <https://nntt.maps.arcgis.com/apps/webappviewer/index.html?id=c57f0e996a7c485480570c38c823398c>

<p>Inadequate education of the marine-based cultural heritage values</p>	<ul style="list-style-type: none"> • Lack of knowledge and appreciation for sites, history and community • Reduced community stewardship • Lack of understanding of the need to protect cultural heritage 	<p>WAM DBCA DPIRD</p>
--	--	---

Current management tools

There is a clear stakeholder view that management of the cultural heritage values of the Abrolhos FHPA should focus on protecting and promoting the unique maritime, commercial fishing and guano mining heritage.

Decisions about managing heritage places are carried out under laws at all levels of government. DAWE is responsible for administering the key national heritage law the under the EPBC Act, and manages the National Heritage List, which includes places of outstanding heritage value to the nation. The *Batavia* wreck site and survivor camps are listed.

The (Commonwealth) *Underwater Cultural Heritage Act 2018* (UCH Act) is also administered by DAWE and automatically protects all shipwrecks or sunken aircraft older than 75 years that lie within Australian waters that extend from the low tide mark/ Territorial Sea Baseline to the edge of the continental shelf and/ or Exclusive Economic Zone (EEZ). Other UCH Act sites may be protected by Ministerial declaration. The UCH Act also protects all artefacts on land directly associated with historic shipwrecks. The Chief Executive Officer of the WA Museum is delegated with DAWE Ministers' powers to administer the UCH Act in WA.

The WA Museum (WAM) is responsible for maritime archaeological sites relating to shipwrecks and associated land sites at the Abrolhos Islands under the (State) *Maritime Archaeology Act 1973* and the (Commonwealth) UCH Act. The historical and cultural environment of the Abrolhos Islands has been described in several publications by WAM (Green and Stanbury, 1988; Stanbury, 1991; Stanbury, 1993). WAM published a draft management plan for the protection and use of historic shipwreck and associated maritime heritage sites in the Wallabi Group in 2001.

The Heritage Council of Western Australia is the State Government's expert body on WA's cultural heritage significance as vested under the *Heritage Act 2018*. The Department of Planning, Lands and Heritage supports the Heritage Council including administrating Inherit, an online database of places which have been identified at local and state level in the State Register of Heritage Places. The Heritage Council makes key decisions on places to be entered into the State Register. Any member of the public, an organisation or a local government can nominate a place to the State Register. The Houtman Abrolhos Marine Area (03387) has been nominated and assessed for inclusion in the State Heritage Register but is not yet registered.

The National Trust of Western Australia works to raise knowledge, awareness, understanding and commitment to WA's natural and cultural heritage. It also establishes and administers heritage appeals on behalf of local governments and community groups to raise funds for conservation and interpretation of WA's heritage.

Local governments are required to maintain a Local Heritage List however sites can only be listed if a planning scheme applies to the site under the *Planning and Development Act 2005*. There is currently no planning scheme in place for the Abrolhos Islands.

DPIRD can regulate persons and activities in the Abrolhos FHPA that may impact on cultural heritage sites below the high-water mark. Some maritime heritage sites in the FHPA are not currently protected by Commonwealth or State heritage legislation and this will require collaboration between DPIRD and WAM to identify sites that require further assessment, listing and protection.

Although little is known about the Aboriginal values associated with the Abrolhos, further consultation with Yamatji Nation representatives could be pursued to investigate any spiritual, mythological and modern-day connections to the Abrolhos FHPA.

Management objectives and proposed actions

The proposed actions in the table below have been developed to achieve management objectives and strategic priorities for cultural heritage protection in the Abrolhos FHPA and manage the impacts from FHPA users on cultural heritage sites in the Abrolhos Reserve and National Park. DPIRD’s primary objective is to protect and conserve cultural heritage values from the threat risks and impacts listed in [Table 6](#). The management actions below have also been informed by the outcomes of consultation undertaken for the Stakeholder Engagement Project during 2021.

Management Objectives	Proposed Management Actions
<p><i>In collaboration with DBCA, the WA Museum and stakeholders, identify and manage the impacts of FHPA users on cultural heritage sites in the FHPA, Reserve and National Park.</i></p>	<ol style="list-style-type: none"> 1. Collaborate with the WA Museum and Heritage Council to determine mechanisms to identify and protect maritime archaeological sites in the Abrolhos FHPA not currently listed under legislation. 2. Implement nine new Special Marine Use Area – Maritime Heritage sites and associated regulations in accordance with the Abrolhos FHPA Draft Zoning Scheme (see Section 2.3). 3. Engage the WA Museum when planning for the installation of any new public or private commercial marine-based infrastructure located near key maritime heritage sites in the Abrolhos FHPA. 4. Support the WA Museum and DBCA to assess and manage the risks posed by FHPA users accessing key marine and terrestrial heritage sites in the Abrolhos FHPA and National Park. 5. Support the development of interpretation material to increase awareness, understanding and appreciation of the unique cultural heritage values in the FHPA, Reserve and National Park. 6. Support community and visitor education programs that improve awareness of the importance of conserving and protecting maritime and terrestrial heritage sites.

2.3 Marine Tourism and Recreation

Marine tourism and recreation values, visitors and activities

The wild beauty of the Abrolhos Islands and Abrolhos FHPA draw thousands of visitors annually. The relaxing and laid-back lifestyle of an extended stay on board a boat is sought by many and considered to be an extraordinary or 'once in a lifetime' experience. Many people enjoy the tourism values of the Abrolhos FHPA regularly and some for many years. These regular visitors identify with the sense of place and have a connection to the unique landscape and seascape.



Image 16- Recreational boats visiting the Abrolhos FHPA during peak season, Wallabi Group. Credit: DPIRD.

For the recreational visitor, the Abrolhos FHPA showcases a diverse range of experiences such as:

- appreciating the remote locality and wilderness
- historical shipwrecks and their stories
- high quality recreational fishing and boating
- surfing, stand-up paddle boarding and kayaking
- kitesurfing and wind surfing
- world renowned bird and wildlife watching
- whale watching and appreciation of marine life
- spectacular diving and snorkelling; and
- gaining knowledge of the local residents and their industries.



Image 17- Diver observing the anchor from *Batavia* in the Beacon Island ROA, Wallabi Group. Credit: DPIRD, Shannon Conway.

A significant number of visits to the Abrolhos FHPA are by privately owned recreational boats for day trips to the Pelsaert Group. Short stay trips across all island groups generally for a week or less are also common (see [Section 1.2](#) for detailed information regarding marine tourism visitation trends). Most visitors arriving to the Abrolhos FHPA by boat visit islands during their trip. Visitors are not permitted to enter land in the Abrolhos Reserve that is leased to commercial rock lobster fishers and aquaculture operators without permission but can access small areas of unleased land in the Reserve and land in the National Park.

Commercial marine (non-fishing) tour operators who operate in the Abrolhos FHPA provide a valuable service to the wider community. Marine tour operators provide the platform for many visitors to experience a range of extraordinary world-class eco-tourism activities that they may not otherwise have the resources to experience.



Image 18- commercial tourism operations near the guano jetty, southwestern Pelsaert Island, Pelsaert Group. Credit: Abrolhos Adventures.

A range of vessels offer commercial marine tours to the Abrolhos FHPA including ex-fishing boats, larger dedicated eco-tourism vessels and expedition cruise ships. There has also been some interest in including the Abrolhos Islands as a stopover for larger domestic cruise ships, and interest in operating a marine aircraft service (seaplanes).

Please refer to [Section 2.4 Sustainable Fisheries and Aquaculture](#) for more information regarding fishing tour (charter) operators.

The ROAs attract visitors who wish to enjoy a diverse range of marine-based experiences. All ROAs offer world-class glass bottom boat, snorkelling and diving opportunities and observation of marine life. Surfing, kayaking and standup paddling are also common recreational activities within ROAs. The Beacon Island ROA includes the wreck sites of *Batavia* and *Hadda*, in addition to the Long and Beacon Islands' dive trails. Leo Island ROA includes the spectacular Anemone Lump dive trail and the 'cod hole'. Coral Patches ROA includes the Coral Patches dive trail.



Image 19- *Godiva* sp. nudibranch, Roo Tail Dive Trail, Easter Group. Credit: DPIRD, Shannon Conway.

The seven existing dive trails¹⁷ were created over twenty years ago at key locations known to attract visitors and to allow for relatively safe observation of fish and fish habitat. The dive trails are not currently maintained.

¹⁷ http://www.fish.wa.gov.au/Documents/recreational_fishing/fhpa/abrolhos_islands_information_guide.pdf

Public marine tourism infrastructure

DPIRD maintains 37 public moorings at key locations across the Abrolhos FHPA that are known to be popular visitor areas or provide shelter from wind and swell in varying weather conditions. The public moorings are currently courtesy moorings for both day and night use and are occupied on a 'first in best dressed' basis. Each mooring is rated for vessels up to 20 metres (65 ft) in length and up to 40 tonnes in weight in wind conditions under 30 knots. Vessels that cannot access a public mooring due to their size or mooring occupation must anchor.



Image 20- Public mooring at Coral Patches ROA, Pelsaert Group. Credit: DPIRD, N. Moore.

DBCA is currently constructing two public jetties originating from National Park land in the Wallabi Group – one at East Wallabi Island and the other at Beacon Island. Both jetties sit on easements that support tenure arrangements for the installation and management of both jetties by DBCA. DoT is responsible for installing and maintaining navigational aids in the Abrolhos FHPA.



Image 21- Public jetty (currently being replaced with a new jetty), East Wallabi Island, Wallabi Group. Credit: Tourism WA.

Private commercial marine tourism infrastructure

Commercial marine tourism infrastructure in the Abrolhos FHPA is currently limited to moorings; however, there has been interest in installing fixed, floating platforms (e.g., pontoons, rafts and barges) for day use and overnight accommodation. There has also been interest shown from commercial marine tour operators in installing jetties and landings from islands located in the National Park and Abrolhos Reserve.

There are currently no marine aircraft (seaplanes, boat planes) landing areas or associated landing pontoons in the Abrolhos FHPA.

No private recreational moorings are recognised or permitted to be located in the Abrolhos FHPA.

Land-based tourism

Further detail relating to land-based tourism in the Abrolhos Reserve is provided in the *Abrolhos Islands Class A Reserve Draft Management Plan 2022*.

Safety at sea

Safety is the highest priority when considering the wellbeing of all Abrolhos FHPA users. The Abrolhos Islands are a remote offshore location, with prevailing heavy wave action from the southwest and persistent, strong, southerly winds (in excess of 32km/h for 44% of the time). Visitors to the FHPA by boat must be experienced and vessels must be equipped with all safety provisions. Due to its remoteness and lack of services and facilities, visitors by boat must carry enough food, fresh water and fuel to last the length of the intended visit to the Abrolhos FHPA.



Image 22- Large swell near West Wallabi Island. Credit: DPIRD, N Sumner.

The Midwest region has a comprehensive management framework for sea search and rescue operations and visitors should be aware of how to raise these services in the event of an emergency.

The Abrolhos FHPA can experience highly changeable weather and the area has been impacted by cyclones and tsunamis. Visitors should have good knowledge of safe anchorages depending on wind and weather and navigating safely through the notoriously treacherous reef systems.

Issues and challenges

Table 7: Issues and challenges associated with managing marine tourism and recreation in the Abrolhos FHPA

Issue	Challenges	Agency Responsible
Increased marine-based visitation and commercial marine tourism in the FHPA	<ul style="list-style-type: none"> • Protecting and conserving key values while facilitating sustainable tourism and recreation • Meeting expectations relating to amenity and sense of remoteness • Maintaining sense of place and lifestyle • Managing interactions between visitors/commercial tourism and commercial fishing and aquaculture operations 	DPIRD
FHPA and on-island access for boat-based visitors	<ul style="list-style-type: none"> • Maintaining visitor and tourism operator access and activities in the FHPA while protecting and conserving key values • Providing public access points for boat-based visitors and tourism operators to airstrips 	DPIRD DBCA
Public marine infrastructure and services	<ul style="list-style-type: none"> • Ensuring appropriate use and licensing of existing public moorings and jetties • Installation of new public marine infrastructure to support future tourism and ongoing maintenance • Identification of locations for future tourism nodes in the National Park that require supporting public marine infrastructure • Providing public marine infrastructure for larger boats over 20 metres and smaller boats less than 6 metres 	DPIRD DBCA DoT
Anchoring	<ul style="list-style-type: none"> • Lack of current management framework • Increased risks to natural and cultural heritage values • No identified preferred anchoring areas • Insufficient number of existing public moorings and increasing visitation 	DPIRD
Management and licensing for commercial non-fishing marine tourism operators	<ul style="list-style-type: none"> • Requires the development of a management framework including regulations, licensing, policies and guidelines 	DPIRD DBCA

Management and licensing for commercial marine tourism infrastructure	<ul style="list-style-type: none"> • Current management framework requires improvement including regulations, licensing, transfer, policies and guidelines • Multiple agency management • DoT is responsible for licensing jetties in the FHPA • Identification of locations for future tourism nodes in the National Park that would benefit from private commercial marine infrastructure 	DPIRD DoT DBCA
Competing activities in key areas in the FHPA	<ul style="list-style-type: none"> • Managing risks to visitor health and safety • Managing activities that are incompatible with protecting and conserving key values • Meeting stakeholder expectations and aspirations 	DPIRD
Marine safety and emergencies	<ul style="list-style-type: none"> • Multiple agency management • Lack of cellular network • Lack of on island medical services all year round • Lack of on island facilities (food, water, fuel) • Emergency response • Highly changeable weather • Timely evacuations (cyclones, tsunamis) 	REMAC, LEMAC Silver Chain DoT AMSA DFES WAPOL Volunteer rescue groups DPIRD DBCA
Cross-tenure tourism planning	<ul style="list-style-type: none"> • Multiple agency management • Location of future land-based tourism operations and associated marine infrastructure requirements • Competitive tourism operator tender processes across tenures 	DBCA DPIRD WAM Tourism WA Tourism Council of WA
Gaps in knowledge	<ul style="list-style-type: none"> • Uncertainty around future visitation trends • Appropriate level of protection for key values • Future funding requirements • Research and monitoring needs • Tourism data collection 	DPIRD DBCA WAM
Revenue and cost recovery	<ul style="list-style-type: none"> • Development of IT systems to manage licensing and approvals • No revenue currently generated • Public marine infrastructure installation and ongoing maintenance 	DPIRD

Current management tools

Recreational and commercial marine tourism activities and infrastructure

With changes and developments in the commercial marine tourism industry and improved access to the Abrolhos FHPA from increased availability of suitable recreational vessels and weather predictions, the need to quantify and manage current and future users is imperative. As discussed in [Section 1.2](#), there is a regulatory requirement to notify DPIRD before entering the Abrolhos FHPA by boat. The Abrolhos FHPA online notification form requests information regarding the master, vessel, number of passengers, an emergency contact and some basic data relating to destination and tourism and recreational activities. This information has been used to assess visitation patterns to the Abrolhos FHPA and has assisted in the development of this draft management plan.

While the FRMA allows for the management and licensing of non-fishing (e.g., eco-tour) marine tourism operations, a management framework is not currently in place. Provided operators submit an entry notification, any number of marine eco-tour operators may currently undertake non-fishing activities in the Abrolhos FHPA. DPIRD also does not currently licence persons entering the FHPA to create audio-visual productions for a commercial purpose or gain or holding any type of commercial event.

DPIRD manages the location, design and installation of commercial marine tourism infrastructure such as jetties, moorings and fixed floating infrastructure such as swimming pontoons and platforms for day use and overnight accommodation. Approval is required under the FRMR prior to installing a commercial marine tourism jetty or mooring. Jetties and moorings owned by commercial fishing and aquaculture licensees can be used by any person with written permission, a copy of which must be provided to DPIRD.

DoT is responsible for licensing of jetties and (many) moorings in WA. CASA is responsible for managing drones and marine aircraft such as sea planes and boat planes. WAM manages activities within gazetted maritime archaeological sites and there are a number of these across the FHPA and islands. Commercial marine tour operators who also access the National Park are required to be licensed by DBCA and all visitors must abide by DBCA legislation managing interactions with marine mammals, reptiles and birds.

Regional tourism and recreation promotion and planning

Tourism WA, the Tourism Council of WA, CGG and MWDC are at the forefront of tourism promotion and strategic planning for the Midwest region. CGG is committed to continuing to transform Geraldton into a top destination and a 'hub' to explore the whole of the Midwest region, including the Abrolhos Islands and FHPA (CGG 2020). A number of local tourism and community strategies have been previously developed including the recent *Greater Geraldton 2031 Strategic Community Plan*.

Commercial marine tourism accreditation

The Tourism Council of WA offers a Marine Tourism Accreditation (MTA)¹⁸. MTA is a module of the Quality Tourism Framework specifically designed to help WA's marine tourism businesses address and be rewarded for meeting WA Marine Tour Operators Best Practice Standards.

¹⁸ <https://tourismcouncilwa.com.au/accreditation/tourism-accreditation>

By becoming Marine Tourism Accredited, businesses have demonstrated a commitment to professionalism and ethical conduct operating in WA's pristine marine environment. The standards of the MTA include:

- Business Operations - Registration, Insurance and Licensing.
- Marine Qualifications.
- Marine Operations Compliance with Risk Management and Safety Standards.
- Sound Environmental and Sustainability Practices.
- Customer Operations Professional Customer Service.
- Social and Cultural Sustainability.

Safety at sea

There is a clear stakeholder view that emergency response services need to be improved, particularly given the anticipated growth in tourism, and evacuation procedures, roles and responsibilities more clearly defined.

WA Police provide oversight and support for all sea search and rescue (SAR) operations in WA. DFES personnel and volunteers also work closely with other agencies such as WA Police and St John Ambulance, helping to coordinate and carry out search and rescue missions on land and at sea. There are a range of volunteer groups that assist in SAR operations including volunteer marine rescue groups in Geraldton, Kalbarri and Port Denison.



Image 23- RAC rescue helicopter. Credit: Department of Fire and Emergency.

DPIRD assists in police and rescue operations and evacuations in the Abrolhos FHPA and is represented on regional and local emergency management committees in the Midwest. Where possible, evacuations can also occur by helicopter. DPIRD's online notification database is an important tool used in the event of emergency and evacuations.

The Regulations allows for the use of any public or private mooring or jetty to be used in an emergency situation to assist in medical evacuations to airstrips in the National Park. Local charter aircraft operators are often used to assist in medical evacuations.



Image 24- north cardinal marker navigation aid, Middle Island Pelsaert Group. Credit: DPIRD.

DoT and AMSA manage recreational and commercial vessel operations, navigation and safety at sea.

DoT has developed boating guides for popular boating locations in WA and the guides contain local marine safety information including boating hazards, facilities, speed restricted areas, water-ski, personal watercraft and closed water areas. There is currently no boating guide available for the Abrolhos FHPA.

AMSA administers the *Marine Safety (Domestic Commercial Vessel) National Law Act 2012*, which replaced eight federal, state and territory laws with a single regulatory framework for the certification, construction, equipment, design and operation of domestic commercial vessels inside Australia's exclusive economic zone. AMSA also releases marine orders that set out a range of requirements relating to the operation of vessels.

The Silver Chain remote area nursing post services Rat Island and Pigeon Island during the peak visitor period between March and June and is available to all visitors and residents. Outside of these months, 'on – island' nursing post services are not available.

Proposed management

There is a lot that stakeholders agree on in respect of tourism at the Abrolhos. Stakeholders agree that tourism should build slowly, and the initial management focus should be on getting the required management frameworks in place and enhancing the existing visitor experience.

As set out in the Strategic Direction, State Government's vision for the Abrolhos Islands in respect of tourism is –

“to provide a world-class sustainable tourism experience and create new jobs and economic opportunities in the Midwest Region, while protecting the unique natural, cultural heritage, fishing and community values of the Abrolhos”.

Government is committed to creating a world-class visitor destination that contributes to a vibrant regional economy with:

- extraordinary visitor experiences that share the unique stories of the Abrolhos' maritime heritage, industries, environments, wildlife and people
- quality visitor facilities that reflect the unique character of the Abrolhos
- targeted overnight stay opportunities appropriate for a range of visitor markets
- a suite of accredited land, marine and air-based tourism operators

Guiding principles for the development of sustainable marine tourism and recreation in the Abrolhos FHPA

The marine tourism management measures proposed in this draft management plan are primarily targeted at current FHPA visitation patterns and users. The impacts on key values that may arise from a potential increase in visitation and expansion of tourism operations over the next ten years have also been considered.

DPIRD is proposing a set of guiding principles for marine tourism and recreation in the Abrolhos FHPA that will provide for low impact, environmentally sensitive nature and cultural-based tourism which is compatible with key values. When considering future marine tourism developments and planning for visitor access and infrastructure in the FHPA, DPIRD supports and will endeavour to provide for:

- **long term coexistence of sustainable marine tourism, fishing and aquaculture**
- **appropriate physical segregation of marine tourism and recreation activities from commercial fishing and aquaculture operations, where necessary**
- **accredited marine tourism operators and a code of conduct to ensure the visitor experience involves best practice environmental and management standards**
- **licensed commercial marine tourism operators, and well-trained guides with local knowledge**
- **controlled visitor access to priority sites in the FHPA, and in the National Park in consultation with DBCA**
- **monitoring of visitor numbers at sensitive sites in the Abrolhos FHPA and National Park, and implementation of management measures where required**
- **appropriate location, design, licensing and use of marine tourism infrastructure that is compatible with the conservation of natural and cultural values and retains the unique Abrolhos sense of place**

It is important to note that DPIRD is unable to manage visitor activities above the high-water mark in the National Park however the management of activities at the land-sea interface (intertidal zone) has been considered. DBCA has indicated that some locations in the National Park could be used for land-based tourism infrastructure in the future. DPIRD will work with DBCA to identify associated marine infrastructure requirements.

Abrolhos FHPA Draft Zoning Scheme

A marine zoning scheme for the Abrolhos FHPA is considered to be an integral management tool that will meet a range of management objectives and State Government's vision for the Abrolhos Islands.

The *Houtman Abrolhos Islands Fish Habitat Protection Area Draft Zoning Scheme* (Abrolhos FHPA Draft Zoning Scheme) is provided as Part 2 to this draft management plan. The objective of the Abrolhos FHPA Draft Zoning Scheme is to enhance and facilitate a diverse range of marine-based recreational opportunities for visitors and operators that will complement the destination as a low - impact, ecologically sustainable, nature-based visitor experience. A sustainable marine tourism footprint will support the retention of key values that draw visitors to Abrolhos Islands. The Abrolhos FHPA Draft Zoning Scheme also aims to manage marine activities and the location of marine infrastructure in particular areas to protect and conserve natural, heritage and tourism values.

The Abrolhos FHPA Draft Zoning Scheme comprises a summary of proposed and existing zones and proposed marine activity and infrastructure zoning matrices. It also provides maps of locations that require further management to protect key values. These include:

- new Special Marine Use Areas for wilderness fishing, marine tourism and maritime heritage
- existing ROAs
- existing and new tourism/public mooring and anchorage areas

Any new ROA locations and seaplane landing areas will be identified in consultation with stakeholders.

Special marine use areas (SMUAs)

SMUAs will be established under regulations on the basis that:

1. **marine-based tourism and recreational activities require additional management to reduce impacts on the key values in the FHPA; or**
2. **additional management is required to manage conflicting uses and visitor safety; or**
3. **additional management is required to manage marine-based tourism and recreational activities to reduce impacts on the key values in the National Park.**

DPIRD proposes to establish a **SMUA - Wilderness Fishing** across the entire Abrolhos FHPA to the high-water mark. The underlying principles for wilderness fishing include maintaining amenity, promoting the importance of conserving and protecting of the unique marine environment and marine species, implementing low impact 'catch to cook' fishing rules (low take, low takeaway) and discouraging 'catch and release' fishing. While wilderness fishing concepts are aimed at achieving marine tourism outcomes, there will also be some benefit to localised aquatic resource sustainability in the FHPA, particularly demersal scalefish.

To support the concepts of wilderness fishing in the Abrolhos FHPA, DPIRD is proposing to:

1. implement a reduction in the current Abrolhos FHPA finfish possession limit to two whole fish (or fish trunks) or four pieces of fish from the demersal scalefish and pelagic species groups; and
2. establish a new Abrolhos Islands FHPA Charter Zone within the West Coast Zone of the Western Australian Charter Fishery (see [Section 2.4 Sustainable Fisheries and Aquaculture](#)).

The proposed possession limit in 1. above would apply to all recreational fishing, including recreational fishing undertaken as part of a fishing tour (charter fishing).¹⁹

Four (4) new SMUA – Tourism sites are proposed to be established to manage activities in existing areas identified as high use marine and land-based tourism and recreation sites including:

1. Turtle Bay – East Wallabi Island, Wallabi Group
2. White Bank and adjacent anchorage – north Rat Island, Easter Group
3. Southeast Rat Island, Easter Group
4. Southwest lower embayment Pelsaert Island, Pelsaert Group

There is an immediate need to connect all FHPA users with the Rat Island airstrip, which is located within the National Park. The south-eastern area of Rat Island seems appropriate to identify a public access point from the Abrolhos FHPA to the island and airstrip. The land area is comprised of a mix of National Park and Abrolhos Reserve land, most of which is subject to lease arrangements. DPIRD will collaborate with stakeholders to progress appropriate options. New SMUA – Tourism sites may be proposed in the future in collaboration with DBCA and tourism planning for adjacent locations in the National Park.

Nine (9) new **SMUA – Maritime Heritage** sites are proposed to be implemented to (1) identify existing historical guano mining jetty infrastructure across the Abrolhos FHPA, and (2) manage activities that may impact on maritime heritage values. Additional future sites may be proposed following collaboration between DPIRD and WAM to identify sites that require further assessment, listing and/or protection.

Each proposed SMUA – Maritime Heritage site would allow for swimming and observation activities but would consist of a **20-metre exclusion zone** for all vessels (including non-powered vessels such as kayaks), fishing and anchoring up to the high-water mark around each maritime heritage structure.

Please refer to the Abrolhos FHPA Draft Zoning Scheme for indicative maps and management of activities and marine infrastructure within the new SMUA sites described above.

¹⁹ Note that any future measures implemented to manage the take of demersal scalefish in the West Coast Bioregion will also apply to the Abrolhos FHPA.

Reef observation areas

In addition to ROAs playing an important role in protecting fish and fish habitats in priority marine areas from localised impacts of marine-based activities (see [Section 2.1 Nature Conservation and Protection](#)), they are also used to:

- identify priority marine areas within the Abrolhos FHPA to provide for safe activities relating to the appreciation and observation of fish and fish habitats; and
- manage priority marine areas that are also adjacent to value rich islands whose natural, heritage and community values require greater protection from marine-based activities and visitors.

It is proposed that, as part of the review of ROAs described in [Section 2.1](#), an evaluation of all marine-based activities undertaken in ROAs and other popular locations should be undertaken in collaboration with stakeholders. Key marine-based tourism and recreation locations should be identified and prioritised during this process to facilitate the management of competing uses and support visitor safety.

As stated in [Section 2.1](#), it is desirable to move the management arrangements for ROAs to the Regulations to allow for improved management of both fishing and non-fishing activities in ROAs.

Please refer to the Abrolhos FHPA Draft Zoning Scheme for maps of the existing ROA sites.

Tourism mooring and anchorage areas

The Abrolhos FHPA Draft Zoning Scheme identifies existing marine public/tourism mooring and anchorage areas and proposes new areas for additional public and commercial tourism moorings and anchoring. It also proposes activity and marine infrastructure arrangements within each area. The mooring and anchoring locations and requirements are primarily aimed at protecting habitat and natural values, separating tourism and commercial fishing/aquaculture operations and meeting existing and future demand.

The locations are based on the recommendations of the *Abrolhos Islands Moorings Review and Analysis Project – Final Report* developed by Wavelength Consulting during 2021. The existing and proposed new tourism mooring and anchorage areas identified in the Abrolhos FHPA Draft Zoning Scheme include high priority areas that would benefit from the installation of additional public moorings and commercial marine tourism moorings. To assist in meeting public mooring demand, DPIRD plans to investigate developing a list of commercial fishing and aquaculture mooring owners who would be willing to 'opt in' to offer their moorings for short term rent to the public in two existing mixed-use areas in the Wallabi Group. This will require consultation with existing mooring owners.

Anchoring within the Abrolhos FHPA will only be permitted with an appropriate anchor (e.g., a Danforth style sand anchor) in sand/mud habitat. Locations that are of significant interest to visitors and marine tourism operators but have limited sand/mud habitat (such as *Batavia* wreck site) should be considered highest priority for additional public moorings.

Please refer to the Abrolhos FHPA Draft Zoning Scheme for indicative location maps and management of activities and marine infrastructure for tourism mooring and anchorage areas in the Abrolhos FHPA.

Marine aircraft landing areas

DPIRD proposes to introduce an approval requirement and appropriate guidelines to land marine aircraft in the Abrolhos FHPA. Up to three marine aircraft landing area locations will be identified based on need and industry advice. DPIRD will work with tourism stakeholders, CASA, DoT, AMSA, DBCA and wildlife experts.

Building and design requirements for commercial marine tourism infrastructure

Privately owned commercial marine tourism infrastructure includes:

- Moorings
- Jetties
- Fixed floating day use pontoons (swimming/snorkelling platforms, marine aircraft landing pontoons)
- Fixed, floating overnight accommodation
- Any other marine-based commercial tourism structures located within the Abrolhos FHPA

New public and/or commercial marine tourism infrastructure in the Abrolhos FHPA will be considered in accordance with the Abrolhos FHPA Draft Zoning Scheme. DPIRD will develop a **Commercial Marine Tourism Infrastructure Management Plan** that will include:

1. appropriate site selection/locations for new commercial marine tourism infrastructure in the FHPA
2. standards for existing and new infrastructure
3. processes for removal of infrastructure
4. an application and assessment process
5. transfer arrangements
6. a fee structure; and
7. infrastructure design, installation and use requirements.

Education

DPIRD will work with emergency management and SAR agencies to consider ways to ensure that FHPA users have access to the best information regarding the marine safety and emergency services available for the Abrolhos FHPA. DPIRD plans to identify and promote safe locations to anchor in varying weather conditions. The online notification form will be reviewed to find ways to increase education and awareness of safety at sea for Abrolhos FHPA users.

Marine tourism licensing, fees and revenue

To ascertain commercial interest in tourism ventures at the Abrolhos across tenures, a joint DBCA/DPIRD competitive process will be undertaken upon finalisation of the National Park, Abrolhos Reserve and Abrolhos FHPA management plans. This process will apply to any proposed marine-based tourism ventures that require exclusive (permanent or semi-permanent) infrastructure access to land or water, and/or where a restricted commercial development opportunity exists and there is likely to be interest from more than one party.

This is considered a fair and equitable process to assess applications and will ensure the most suitable applicant is selected and the best outcomes for the State are achieved.

Any tourism development in the Abrolhos FHPA will be assessed to ensure that it enhances, or at least does not unacceptably impact on, the natural, cultural heritage, fishing and community values of the Abrolhos, and retains the Abrolhos sense of place. Proposals will also be assessed under the *Environmental Protection Act 1986* and the EPBC Act, where appropriate, and any other relevant legislation.

DPIRD is proposing a licensing requirement for all commercial marine (non-fishing) tourism operators in the Abrolhos FHPA (e.g., eco – tours, self-steer hire vessels, ferries, expedition and cruise ships etc.). Commercial marine (non-fishing) tourism operators will need to satisfy a range of requirements when applying for a licence to ensure environmental, heritage and safety standards are being met.

DPIRD will scope the potential to introduce an Abrolhos FHPA entry fee for private recreational vessels where there are no persons on board that hold recreational fishing from a boat or rock lobster licences. A public mooring booking system will also be scoped, with a target implementation date of 1 February 2024.

An approval from DPIRD will be required for persons entering the Abrolhos FHPA to create audio-visual productions for a commercial purpose or gain. This will not apply to a tourism operator (or any other person holding a licence to conduct commercial activities in the FHPA) who holds a licence to undertake commercial tourism activities at the Abrolhos Islands. An approval will also be required to hold a commercial event in the FHPA.

[Table 8](#) below sets out the proposed assessment, licensing and fee framework for commercial marine tourism operators and associated marine infrastructure.

The revenue arising from these measures will be used to assist in the maintenance of public marine infrastructure, education programs, administration systems and FHPA compliance and management.

Table 8: Proposed Abrolhos FHPA Marine Tourism Assessment and Licensing Framework

Marine Tourism (non-fishing) Activity	DPIRD Approval Required	Application Fee	Assessment Guidelines	Licence Type	Annual Renewal Fee	Exceptions
Installing and using a new jetty for commercial marine tourism purposes OR Converting an existing private jetty to commercial marine tourism standards	Yes	Yes	Yes	Jetty Licence (Tourism) (DoT)	Yes (DoT)	None
Installing and using a new mooring for commercial marine tourism purposes OR Converting an existing mooring to commercial marine tourism standards	Yes	Yes		Mooring Licence (Tourism) (TBA)	Yes (TBA – DoT or DPIRD)	
Installing new fixed floating pontoons/platforms/barges/landings etc for commercial marine tourism purposes OR Converting existing private fixed floating pontoons/platforms/barges etc to commercial marine tourism standards	Yes	Yes		Commercial Marine Tourism Infrastructure Licence (DPIRD)	Yes (DPIRD)	None
Offering non-fishing marine tours including eco – tours, self-steer hire vessels, ferry services, expedition and cruise ship tours, and landing marine aircraft (seaplanes and boat planes)	Yes	Yes	Yes	Commercial (Non-Fishing) Marine Tour Licence (DPIRD)	Yes (DPIRD)	Will not apply to charter operators

Entering the FHPA to create audio-visual productions for a commercial purpose or gain, or holding a commercial event in the FHPA	Yes	Yes	Yes.	Approval only (DPIRD)	N/A	Will not apply to a person operating in the FHPA under the authority of a commercial licence of any type (comm fishing, charter, marine tourism)
Entering the Abrolhos FHPA to undertake private non-commercial marine recreational activities that do not include fishing	No. Notification only and entry fee	N/A	N/A - education	N/A	N/A	Will not apply to boats where one or more persons on board hold a RFBL or recreational rock lobster licence

Management objectives and proposed actions

The proposed actions in the table below have been developed to achieve management objectives and strategic priorities for marine tourism and recreation in the FHPA and manage the impacts from FHPA users in the Abrolhos Reserve and National Park. DPIRD’s primary objective is to meet the challenges listed in [Table 7](#). The management actions below have also been informed by the outcomes of consultation undertaken for the Stakeholder Engagement Project during 2021.

Management Objectives	Management Actions
<p><i>Enhance and facilitate a diverse range of marine-based recreational opportunities for visitors that will complement the destination as a low-impact, ecologically sustainable, nature-based visitor experience.</i></p>	<ol style="list-style-type: none"> 1. In consultation with stakeholders, evaluate all marine-based activities undertaken in ROAs and other popular sites to identify and prioritise key marine-based tourism and recreation locations. 2. Establish a Special Marine Use Area – Wilderness Fishing across the entire Abrolhos FHPA and associated regulations including reducing the possession limit to two whole fish (or fish trunks) or four pieces of fish from the demersal scalefish and pelagic species groups. 3. Establish four new Special Marine Use Area – Tourism sites and associated regulations in accordance with the Abrolhos FHPA Draft Zoning Scheme. 4. Regularly maintain all seven existing dive trails and consider the need for additional dive trails at key locations. 5. Introduce an entry fee for all private recreational boats (where no person on board holds a RFBL or recreational rock lobster licence) entering the Abrolhos FHPA with a target implementation date of 1 February 2023. 6. In consultation with stakeholders, scope the potential to introduce a public mooring booking system and fee structure with a target implementation date of 1 February 2024. 7. Support the preparation and implementation of an integrated interpretation program for the Abrolhos FHPA, Reserve and National Park. 8. Improve the collection of data and information as it relates to marine tourism and recreation.

Management Objectives	Management Actions
<p><i>Work collaboratively with DBCA, WAM and other stakeholders to ensure future public and private marine tourism infrastructure is appropriate and located in key areas to support land-based tourism.</i></p>	<ol style="list-style-type: none"> 9. Implement a Commercial Marine Tourism Infrastructure Management Plan in accordance with the Abrolhos FHPA Draft Zoning Scheme to ensure correct safety standards, suitable design and appropriate site selection. 10. Implement licensing and approval process for the installation and use of all private commercial marine tourism infrastructure including any form of fixed, floating platform in the Abrolhos FHPA. 11. Work with Reserve residents to ensure that private and public marine tourism infrastructure is located in a way that does not significantly disturb residents or commercial fishing and aquaculture operations. 12. In consultation with existing commercial mooring owners, investigate opportunities to establish an 'opt in' framework for allowing public rental of privately owned commercial moorings.
<p><i>Minimise risks to the safety of FHPA users and promote awareness of the preparation and knowledge required to visit the Abrolhos FHPA safely.</i></p>	<ol style="list-style-type: none"> 13. Identify and promote safe locations to anchor in varying weather conditions. 14. Maintain DPIRD's presence and active engagement on the District Emergency Management Committee and Local Emergency Management Committee. 15. Ensure FHPA users have access to information regarding the marine safety and emergency services available, and the requirements to visit the Abrolhos FHPA safely. 16. Consider ways to use the online notification form to increase education and awareness of safety at sea for Abrolhos FHPA users. 17. Collaborate with the Department of Transport to develop a boating guide for the Abrolhos FHPA.

Management Objectives	Management Actions
<p><i>In consultation with partner agencies and stakeholders, facilitate the establishment of licensed marine-based commercial tourism operations that provide extraordinary visitor experiences while minimising impacts on the key values of the FHPA, Reserve and National Park.</i></p>	<ol style="list-style-type: none"> 18. Introduce a licensing requirement for all commercial marine (non-fishing) tour operators in the Abrolhos FHPA, including eco – tours, self-steer hire vessels, ferries, expedition and cruise ships, marine aircraft etc. 19. Introduce an approval process for all persons wishing to undertake the following in the Abrolhos FHPA: <ul style="list-style-type: none"> • produce film, photography or any type of audio-visual product for a commercial purpose or gain • hold any type of commercial event. 20. In consultation with stakeholders, identify up to three appropriate sites for landing marine aircraft (seaplanes, boat planes) in the Abrolhos FHPA and implement an approval process for landing marine aircraft. 21. Implement measures to ensure Abrolhos-based marine tourism operators are accredited and trained to ensure best practice environmental and management standards, and a high-quality visitor experience. 22. Collaborate with the Department of Transport to review the licensing requirements for jetties owned by commercial tourism operators in the Abrolhos FHPA. 23. Collaborate with the Department of Transport to implement a licensing framework for commercial tourism moorings. 24. In collaboration with DBCA, conduct a competitive process to ascertain commercial interest in tourism ventures at the Abrolhos, across all tenures.

2.4 Sustainable Fisheries and Aquaculture

The unique contribution that the state's fishing and aquaculture sectors make to WA are acknowledged in the state's *Primary Industries Plan 2020 – 2024*. The role of the many stakeholders that work with DPIRD to achieve sustainable fisheries, valuable industries and healthy ecosystems remain an invaluable part of the ongoing successful management of fisheries in WA (Gaughan and Santoro 2021).

For management and science purposes, DPIRD assigns aquatic resources in WA into bioregions and depth range categories. The Abrolhos FHPA is located in the West Coast Bioregion (WCB), an area that extends between Black Point on the south coast and Kalbarri, north of Geraldton (Figure 4).

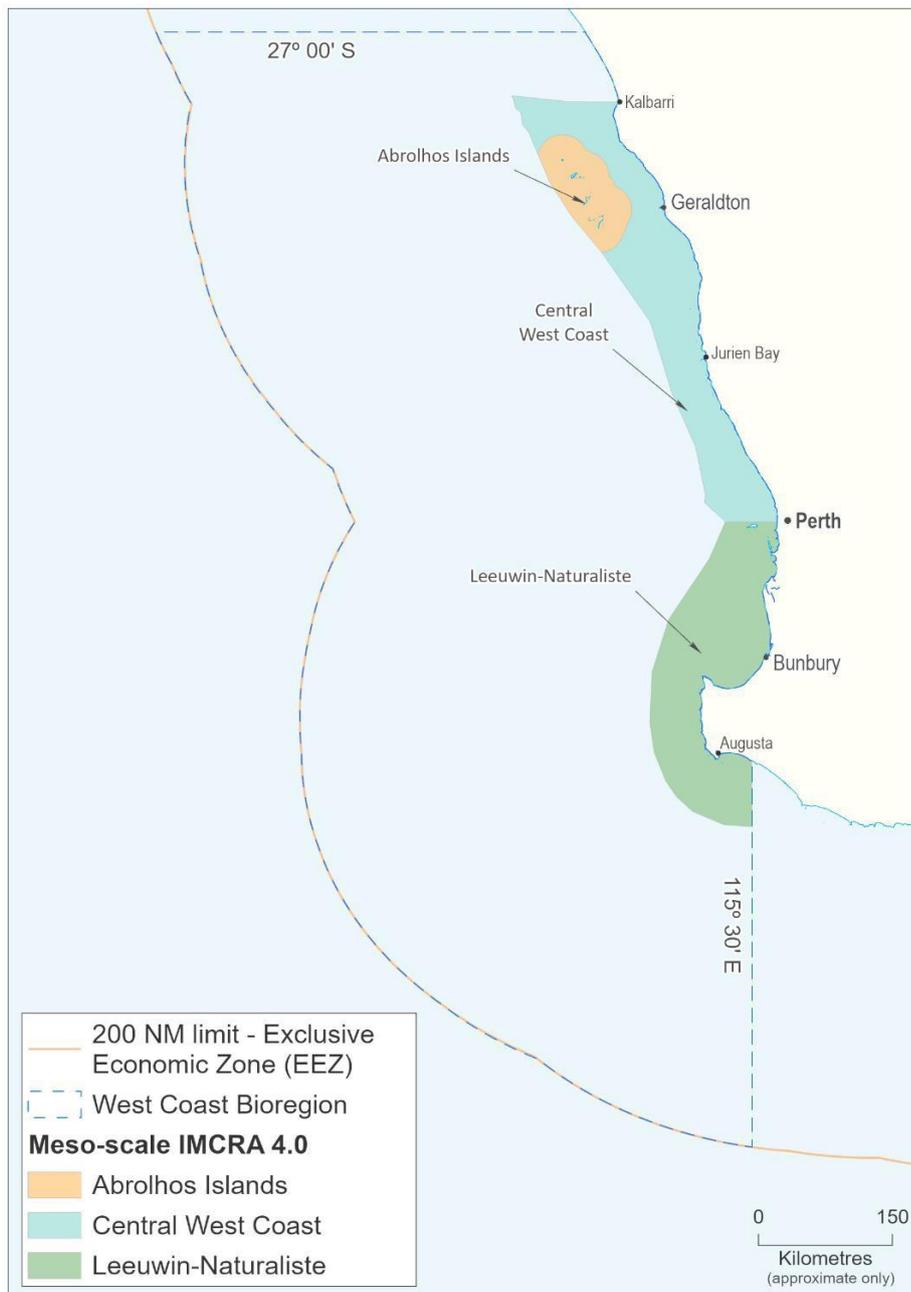


Figure 4- West Coast Bioregion and IMCRA 4.0 ecosystems

Recreational fishing values

Recreational fishing is a popular activity in WA, providing important social and economic benefits to the State's population (Ryan et. al 2019). The participation rate of WA's population in recreational fishing was estimated to be 25.4% in 2017/18 and the estimated number of recreational fishers in 2018/19 was 619,000 (DPIRD 2018). Recreational fishing activities support a wide range of local businesses and the expenditure attributable to recreational fishing in WA was estimated at \$2.4 billion in 2015/16 (Lindner and McLeod 2019).



Image 25- Samsonfish (*Seriola hippos*), Abrolhos FHPA. Credit: Neil Sumner.

Recreational fishers often have important catch-related motives such as fishing to 'obtain a feed' or 'for fresh seafood' (Ryan et. al 2019). However, there are also significant social benefits from recreational fishing. Recreational fishers also have non-catch related motives (e.g., 'to relax and unwind', 'to be outdoors', 'for solitude', or 'to be with family and friends') as their primary motive for fishing (Henry and Lyle 2003).

During 2020/21, most trips to the Abrolhos FHPA (70%) were made by private recreational boat owners, most who are engaging in recreational fishing activities. Refer to [Section 1.2](#) for more detailed information. While most recreational fishers only catch a relatively small number of fish, collectively the recreational catch can be substantial.

DPIRD undertakes a statewide survey of boat-based recreational fishing every two years to assess recreational catch and effort using the Recreational Fishing from a Boat Licence (RFBL) database. The WCB recorded the highest fishing effort in WA (76%) during August 2017 to September 2018 with the majority of catch taken by line fishing and pots. Approximately 231 tonnes (t) of demersal scalefish were retained by recreational fishers in the WCB, which recorded the highest catches of dhufish, pink snapper and baldchin groper (approximately 200 t) in the State.

These species are targeted in the Abrolhos FHPA, in addition to other popular scalefish species such as breaksea cod, redthroat and spangled emperors. Rock lobster and squid were highly sought after by recreational fishers in the WCB, as well as pelagic mackerel, tuna and samson fish.

Fishing tour (charter fishing) values

Fishing tour operators in WA provide a valuable recreational and tourism service to the community, providing a platform from which any recreational fisher can enjoy fishing (and other) activities. The Western Australian Charter Fishery (WACF) consists of four zones and covers all inland waters and all waters out to 200 nautical miles.

The Abrolhos FHPA is located within the West Coast Zone of the WACF, an area between Augusta in the south to Kalbarri in the north. The FHPA has long been a destination of choice for the fishing tour operator industry due to the unique and diverse experience it provides. Many charter fishing operators offer clients a range of eco-tourism activities in addition to fishing.

Over 5,000 clients participate in licenced fishing tours to the Abrolhos FHPA annually. The number of recorded trips to the Abrolhos FHPA made by operators licenced to fish West Coast Zone of the WACF between 2015 – 2019 was around 600 per year, with approximately 8 - 12 clients per trip. The number of recorded trips was lower in 2020 (528) than in 2019 (622), likely due to COVID-19 related regional travel restrictions. Licenced charter operators primarily visit the Easter and Wallabi Groups, with moderate effort in the Pelsaert Group and channels between island groups.

The number of fish kept by licenced charter operators fishing in the Abrolhos FHPA has increased steadily since 2012 (5,041 fish) to 12,169 fish in 2020. Between 2002 and 2020, the total number of R/FTOL holders operating in the Abrolhos FHPA ranged between 15 (2012) and 31 (2019).

Commercial fishing values

Commercial fishing makes a valuable contribution to the WA economy through employment and supporting regional businesses, and the supply of local, sustainable and high-quality seafood to the community. The main aquatic resources targeted within the Abrolhos FHPA by commercial operators are summarised below. For more detailed information regarding the commercial fisheries operating in the Abrolhos FHPA please refer to DPIRD's most recent *State of the Fisheries Report*²⁰.

Western rock lobster resource

The major commercial fishery operating in the Abrolhos FHPA is the West Coast Rock Lobster Managed Fishery (WCRLMF), which targets the western rock lobster (*Panulirus cygnus*) using pots. The WCRLMF is Australia's most valuable single species wild capture fishery with a landed value of \$417 million (2019) and has a long-standing commercial and economic history at the Abrolhos Islands. The Abrolhos Islands FHPA is located within Zone A ('Abrolhos Islands Area') of the WCRLMF, which accounts for approximately 20% of the annual catch of the fishery.

Following the WCRLMF transition to quota in 2010 and a move to fishing all year round, there has been an 81% reduction of fishery effort within the Abrolhos FHPA. Catches inside the Abrolhos FHPA also reduced following the introduction of quota. Catch rates increased post transition to quota, with a 2.5-fold increase within the Abrolhos FHPA and a 5-fold increase in the A Zone area outside the FHPA, as fishers access the highly catchable 'whites' migrating in deeper water outside the Abrolhos FHPA during spring.

²⁰ <http://www.fish.wa.gov.au/About-Us/Publications/Pages/State-of-the-Fisheries-report.aspx>

In 2019, the WCRLMF landed a total catch of 6,397 t, plus 11.5 t of “additional” domestic quota from the Local Lobster Program. Of this total catch, 1,152 t (18%) was taken from Zone A of the fishery, with a landed value of approximately \$75 million.

The WCRLMF is important for regional employment with 235 commercial vessels operating in the fishery during 2019 with most of the catch handled by four main processing establishments.



Image 26- loading western rock lobster to a carrier boat, Rat Island, Easter Group.
Credit: DPIRD.

West coast demersal scalefish resource

The West Coast Demersal Scalefish Resource (WCDSR) comprises over 200 demersal scalefish species in inshore (20-250 m deep) and offshore (>250 m) demersal habitats of the WCB. The Abrolhos FHPA is located within the Midwest Area of the West Coast Demersal Scalefish Interim Managed Fishery (WCDSIMF) and line fishing is the only fishing method permitted.

Thirty-one WCDSIMF vessels operated across the entire fishery in 2019, landing a total catch of 271 t demersal scalefish. A small increase in catch occurred in the Midwest Area, from 78 t in 2018 to 85 t in 2019. The estimated gross value of product (GVP) for the entire WCDSIMF in 2019 was \$1-5 million.

Between 2008 and 2019, the five most frequently recorded species caught by the WCDSIMF within the Abrolhos FHPA were pink snapper (*Chrysophrys auratus*), redthroat emperor (*Lethrinus miniatus*), WA dhufish (*Glaucosoma hebraicum*), baldchin groper (*Choerodon rubescens*) and spangled emperor (*Lethrinus nebulosus*).

The total live weight of WCDSIMF catch within the Abrolhos FHPA increased from 14 t in 2008 to a peak of 26 t in 2012, before trending downwards to 6 t in 2019. The annual WCDSIMF catch within the Abrolhos FHPA contributes a small proportion (2-6%) to the total catch of the fishery. The highest catches recorded by the WCDSIMF are located in waters around North Island and the Wallabi Group.

Saucer scallop resource

The second largest saucer scallop (*Ylistrum balloti*) fishery in WA is the Abrolhos Islands and Mid West Trawl Managed Fishery (AIMWTMF). Ten licences are permitted to use low-opening demersal otter trawl gear, operating in sand habitats within the Abrolhos FHPA and the wider Midwest area. Within the Abrolhos FHPA, scallops are generally found on the sandy bottom in the leeward side of the islands. The Abrolhos FHPA accounts for 30% (2,494 km²) of the spatial area of the AIMWTMF (8,366 km²). The ROAs within the Abrolhos FHPA are closed to trawling.

Between 2010 and 2019, AIMWTMF fishing activity only occurred over five years due to fishery closures. Fishing effort within the AIMWTMF has been variable within the last few decades, primarily driven by scallop abundance and condition, which is strongly influenced by environmental conditions. The value of the AIMWTMF is also highly variable. Scallop landings recorded in the AIMWTMF during 2019 were 159 t meat weight (795.6 t whole weight), with a value of \$5.8 million.



Image 27- saucer scallops (*Ylistrum balloti*). Credit: DPIRD.

Octopus resource

The Octopus Interim Managed Fishery (OIMF) targets the western rock octopus resource (*Octopus djinda*) using two types of unbaited traps/pots. The fishery targets similar benthic environment to the WCRLMF, as well as sandy and seagrass habitats. Twenty-five vessels operated in the OIMF in 2019 and more than 20 vessels landed octopus as a by-product in the WCRLMF. In 2019 the total commercial octopus catch in WA was 453 t live weight, which was 44% higher than the 2018 catch of 314 t and represents the highest catch recorded. The large increase was due to new vessels fishing across all zones of the fishery, particularly in Zone 1.

The Abrolhos FHPA is located within Zone 1 of the OIMF. Between 2017-2019, it is estimated that around 1.2% of the total live weight catch of octopus from Zone 1 was taken within the Abrolhos FHPA, which represents 0.3% of the catch across the entire OIMF.

The estimated annual value of the octopus resource in WA for 2019 was \$5.9 million.

Marine aquarium fish resource

The Marine Aquarium Fish Managed Fishery (MAFMF) accesses the state-wide Marine Aquarium Fish Resource (MAFR). The MAFR includes all species that are collected for marine aquarium ornamental display purposes through WA waters (e.g., hard coral, soft coral, clams, other invertebrates, algae, seagrasses and 'live rock').

While the MAFMF has limited access to the Abrolhos FHPA, the 2010-2019 cumulative catch data shows that the Abrolhos FHPA provides a substantial proportion of the overall take of the MAFMF catch: soft coral (28.9%), 'living rock' (20.1%) and invertebrates (12.8%), with a negligible catch of fish. In terms of weight or number this equates to 15.7 t of soft coral, 31 t of 'live rock' and 55,987 invertebrates.

Aquaculture

The WA State Government is committed to further growing the WA aquaculture industry under an economic and environmentally sustainable framework. There are a variety of aquaculture industries that operate off the WA coast including pearl oyster, rock oyster, barramundi, coral, marine finfish, seaweed, mussels, abalone and scallops. DPIRD also operates some broodstock and restocking production facilities, conducts applied research and development and facilitates aquaculture training. The development of the aquaculture industry is supported through the recent release of the *Aquaculture Development Plan for Western Australia* in 2020. The plan supports Government, industry and the community to achieve the following development targets:

1. Economic growth
2. Resilience through diversification
3. Job security and quality

The Abrolhos FHPA's pristine waters provide potential for ecologically sustainable commercial aquaculture, particularly with endemic marine finfish and shellfish species. Aquaculture operations in the Abrolhos FHPA include blacklip pearl oyster cultivation and the grow out of species such as coral, live rock, edible shellfish, octopus and finfish. A number of licensees are permitted to collect broodstock from wild fish stocks to assist in production.

There are currently 21 aquaculture licences granted for marine-based sites located within the Abrolhos FHPA, which represents 29% of non-*Pinctada maxima* aquaculture licences in the State (72). The aquaculture sites currently cover around 2% of the Abrolhos FHPA area. Nineteen sites are located in waters with a depth less of 20 metres, ten of these are located in the Pelsaert Group and six in the Easter Group. The three remaining shallow water sites are located in the Wallabi Group / North Island area. A single licence may be linked to multiple sites.

Aquaculture production returns data indicates that up to seven aquaculture licences were actively operating annually between 2014-15 and 2018-19.



Image 28 – Commercial live coral aquaculture in the Abrolhos FHPA. Credit: Abrolhos Coral and Live Rock.

The Midwest Aquaculture Development Zone²¹ was declared in 2017 and is located within the Abrolhos FHPA (Figure 5). The 3,000-hectare zone is comprised of two parts, a northern area of 2,200 hectares and a southern area of 800 hectares to the east of the Easter Group and to the north of the Pelsaert Group and allows for finfish aquaculture.

²¹ <http://www.fish.wa.gov.au/Fishing-and-Aquaculture/Aquaculture/Aquaculture%20Zones/Pages/default.aspx>

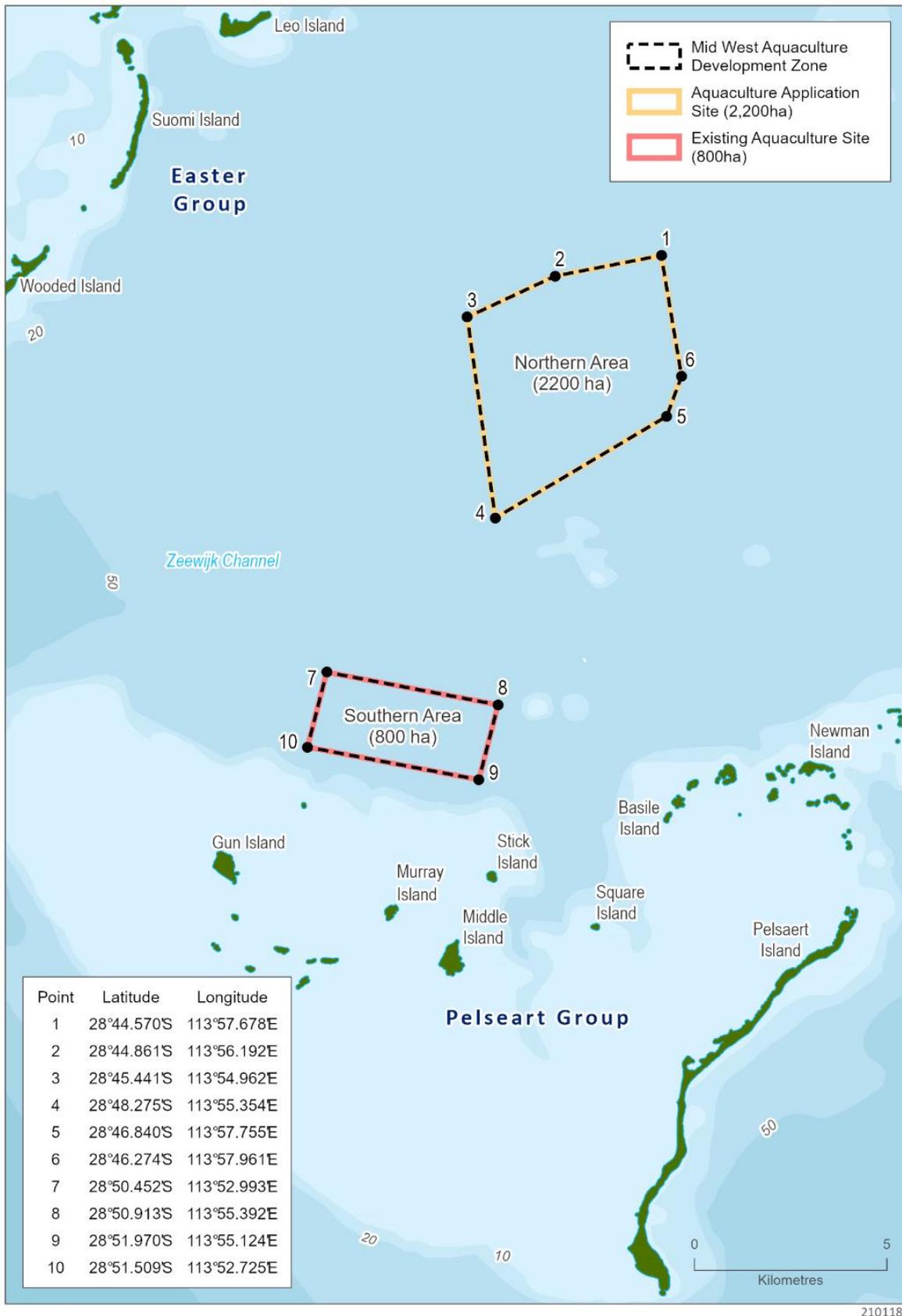


Figure 5: Map of the Midwest Aquaculture Development Zone

Issues and potential impacts

Table 9: Issues and potential impacts on fishing and aquaculture values in the Abrolhos FHPA

Issue	Impact on Fishing and Aquaculture Values	Who is Impacted
Future management arrangements that could reduce access by FHPA users	<ul style="list-style-type: none"> • A reduction in access to the FHPA for fishing and aquaculture activities will impact on: <ul style="list-style-type: none"> ○ residents and local community ○ visitors and tourism ○ local seafood supply ○ local employment ○ support of regional areas and services ○ social values 	Fishing and aquaculture industries Residents, local and wider community
Increases in recreational fishing effort and catch	<ul style="list-style-type: none"> • Catches not within sustainable limits • Localised depletion • Reduced amenity, enjoyment and experiences • Not meeting stakeholder expectations and aspirations 	Recreational fishers Charter operators and clients Commercial fishers
Increases in charter fishing effort and catch	<ul style="list-style-type: none"> • Catches not within sustainable limits • Localised depletion • Reduced amenity, enjoyment and experiences for clients • Reduced clientele • Reduced commercial viability 	Charter operators and clients Recreational and commercial fishers
Shark depredation (bite offs)	<ul style="list-style-type: none"> • Reduced fishing amenity 	Commercial and recreational fishers
Aquaculture planning and management	<ul style="list-style-type: none"> • A lack of targeted future planning for aquaculture in the FHPA could lead to: <ul style="list-style-type: none"> ○ Underutilised aquaculture sites ○ Non-productive or non-viable aquaculture operations ○ aquaculture sites not subject to tenure or performance criteria ○ aquaculture site, size and location impacting on other key values and activities ○ unmonitored take of broodstock, particularly coral ○ competing with other uses in high priority areas e.g., marine tourism 	Aquaculture licensees Marine environment FHPA users

Gaps in knowledge	<ul style="list-style-type: none"> • Future recreational and charter fishing trends in the FHPA • Information gaps associated with recreational fishing in the FHPA • Appropriate level of management to protect values • Funding, research and data collection requirements 	DPIRD FHPA users DBCA Government
-------------------	--	---

Current management tools

Ecosystem based fisheries management (EBFM) and ecologically sustainable development (ESD)

DPIRD's objective is to manage the sustainability of the community's aquatic ecological resources and assets to generate positive sustainable, economic and/or social outcomes (Gaughan and Santoro 2021).

DPIRD adopts an EBFM approach to manage WA's aquatic resources to ensure the sustainable management of all fisheries resources into the future (Gaughan and Santoro 2021). EBFM seeks to recognise ecological, social and economic (ESD) values of aquatic resources at a bioregional level and assesses the risk of fishing activities and external drivers on aquatic resources and the broader marine ecosystem (i.e., the direct effects on habitats and protected species). A thorough appreciation of the nature and extent of the habitats a fishery operates across, and possibly impacts upon, is fundamental to the effective implementation of EBFM (de Lestang *et al.* 2019).

Many aquatic resources in the Abrolhos FHPA are subject to harvest strategies. Harvest strategies establish the decision rules that determine the appropriate harvest levels for all sectors to meet the ecological, economic and social objectives established for a resource (DPIRD 2015). These strategies are also used to meet third party certification requirements (e.g., MSC²² certification and export approvals). Harvest strategies have been developed for the following aquatic resources in the Abrolhos FHPA and are available online²³:

- Western rock lobster (MSC certified)
- West coast demersal scalefish
- Saucer scallops (MSC certified)
- Octopus (MSC certified)
- Marine aquarium fish

Ecological risk assessments (ERAs) are conducted by DPIRD as part of its EBFM framework. ERA outputs inform harvest strategies, as well as supporting the MSC assessment process for fisheries. ERAs have been completed for the following fisheries operating in the Abrolhos FHPA and are available online²⁴:

- WCRLMF
- WCDSIMF
- AIMWTMF
- MAFMF
- OIMF

²² <https://fisheries.msc.org/en/fisheries/>

²³ <http://www.fish.wa.gov.au/About-Us/Publications/Pages/default.aspx>

²⁴ <http://www.fish.wa.gov.au/About-Us/Publications/Pages/default.aspx>

- West Coast Purse Seine Managed Fishery and development zones (WCPSF)

Some aquatic resources occurring in the Abrolhos FHPA have been subject to formal intersectoral catch allocations. This involves setting the total sustainable harvest level of each resource that allows for an ecologically sustainable level of fishing and allocating an explicit share of the catch for use by customary, recreational and commercial fishers. Each sector's catch is then continually monitored and managed within its allocated share. There are intersectoral catch allocations established for the western rock lobster and demersal scalefish resources. Other aquatic resources are informally allocated to the commercial sector only (e.g., marine aquarium fish, specimen shell and scallops) and some have no allocation established at this time (e.g., mackerel, small pelagic fish and octopus).

There are a number of management measures aimed at reducing the risk of fishing activity on endangered, threatened and protected marine organisms. These include supporting recovery programs, gear restrictions and requirements, and seasonal and spatial closures. Fishing legislation includes measures to reduce impacts of fishing on marine mammals and reptiles such as the use of sealion exclusion devices in rock lobster pots in the Easter and Pelsaert Groups as well as fish and turtle exclusion devices in trawl gear. Whale entanglement mitigation strategies have also been implemented to reduce the amount of rope and floats used by fishers and eliminating surface floating rope in deeper waters (How *et al.* 2020).

Underpinning sustainable fisheries management are comprehensive research programs. DPIRD's annual *State of the Fisheries Report* gives an overview of fisheries and aquatic resources management in WA and is benchmarked against independently determined international standards. A significant part of effective aquatic resource management requires good compliance with fishing rules and appropriate and ongoing education. DPIRD facilitates compliance, research and education programs in the Abrolhos FHPA that are regularly reviewed and updated based on an assessment of risk.

Recreational fishing management

Recreational fishers in WA are required to hold a Recreational Boat Fishing Licence (RBFL) to undertake any general fishing activity from a motorised vessel. Boat-based recreational fishers are required to have a minimum of one RBFL holder on board and adhere to boat limits according to the number of RBFL holders. In practice, the number of fishers generally equals the number of RBFL holders on board.

Approximately 135,000 Recreational Fishing from a Boat Licences (RFBLs) are issued annually in WA, with half of these fishers residing in the Perth metropolitan area. The number of RFBLs held by fishers in the Midwest zone (7,239) was the fourth highest in the State behind the Metro, Southwest and Peel zones. Midwest RFBL holders represented 9.6% of the statewide total catch (by numbers of fish) (Ryan *et. al* 2019).

Additional recreational licences are required to use specific gear or target specific species such as rock lobster. Over 60,000 recreational fishers held rock lobster licences in Western Australia during 2019.

A range of fishing rules apply to recreational fishers including size, bag and possession limits, gear and species restrictions and requirements, and seasonal and spatial closures.

DPIRD has implemented an integrated survey design to monitor recreational fisheries in a cost-effective way, known as iSurvey. These surveys provide biennial estimates of recreational catch by boat-based recreational fishers at both state-wide and bioregional levels. These surveys utilise the RFBL as the sampling frame to provide estimates of catch and effort and provide information to validate estimates by enabling comparisons across the various methods. The catches recorded by recreational fishers in the most recent iSurvey²⁵ are discussed above.

Fishing tour (charter) management

Operators in the WACF must hold a fishing tour operator's licence (FTOL) or a restricted fishing tour operator's licence (RFTOL) for the zone they wish to operate in. There are 99 FTOLs and 13 RFTOLs licensed to operate in the West Coast Zone and all may access the Abrolhos FHPA. Charter fishing activities are managed by regulation and conditions of licence, in addition to complying with all other fishing requirements.

The number of R/FTOLs granted is limited and no new licences are issued. Any fish caught on a charter fishing trip are taken under recreational or charter fishing regulations and are not saleable.

A FTOL allows for fish to be taken home at the end of the tour. The focus of the RFTOL is on eco-type activities, such as snorkelling or scuba diving, with limited fishing activity allowing only for fish to be caught and eaten as a meal during the course of the tour. RFTOL tour participants are not allowed to take captured fish home with them at the end of the tour. Under the Regulations, all licenced fishing tour operators must complete daily records of fish caught during a trip and submit these to DPIRD.

Commercial fisheries management

There are a range of fishing closures, species and gear restrictions relevant to the commercial take of aquatic organisms in the Abrolhos FHPA, including reduced scalefish fishing gear, a prohibition on the use of fish traps (rock lobster and octopus fishing excepted) and a prohibition on the use of gillnets and longlines.

Most commercial fisheries operate in the Abrolhos FHPA in accordance with managed fisheries licences that are associated with a commercial fishery management plan. Management plans are a piece of legislation that sets out the rules for fishing within each fishery. Others operate under rules and regulations. No new²⁶ managed fishery licences may be granted however existing licences are transferable.

Commercial fisheries operating (or permitted to operate) in the Abrolhos FHPA include:

- Zone A of the West Coast Rock Lobster Managed Fishery
- Area 8 of the Abalone Managed Fishery (currently closed)
- Midwest area of the West Coast Demersal Scalefish Interim Managed Fishery
- Abrolhos Islands and Midwest Trawl Managed Fishery
- Marine Aquarium Fish Managed Fishery
- Specimen Shell Managed Fishery
- Area 3 of the Mackerel Managed Fishery
- Zone 1 of the Octopus Interim Managed Fishery

²⁵ http://www.fish.wa.gov.au/Documents/research_reports/fr297.pdf

²⁶ With the exception of quota managed fisheries, where a person can demonstrate holding the minimum quota entitlement to fish.

- Squid fishery
- Taking aquatic resources for aquaculture broodstock and growout
- Northern Development Zone of the West Coast Purse Seine Managed Fishery

Of the commercial fisheries listed above, only commercial rock lobster licence holders with sufficient Zone A quota are permitted to own camps on the Abrolhos Reserve.

DPIRD's annual *State of the Fisheries Report* provides further detail on the management, research and compliance work undertaken by the individual commercial fisheries listed above. All export fisheries in Australia must be approved for export under the EPBC Act to ensure that export fisheries are sustainable, the seafood product complies with export laws and meets importing country requirements. DAWE works with DPIRD to facilitate this process.

Aquaculture

DPIRD is responsible for regulating aquaculture within State waters. The *Aquaculture Development Plan for Western Australia (2020)*²⁷ provides further detail on future planning for aquaculture in WA. The assessment of applications for authorisations²⁸ for aquaculture in coastal waters of WA are carried out under Administrative Guideline 1. The principles for grant and management of aquaculture leases in coastal waters of WA are provided in Administrative Guideline 2. An aquaculture licence authorises a specific aquaculture activity at a defined site, whereas a lease provides tenure for the specified area of land or water. An aquaculture lease does not authorise the use of the leased area without an aquaculture licence. Licence holders must provide annual aquaculture production returns so that DPIRD can compile annual aquaculture production statistics. This data is essential for efficient industry management.

The purposes of the Abrolhos FHPA as provided in the FRMA include the culture and propagation of fish and experimental purposes related to that culture and propagation. The first Abrolhos FHPA aquaculture licence was issued for the production of blacklip pearl oysters (*Pinctada margaritifera*) in 1996. The *Principles and Guidelines Relating to the Assessment of Licences for the Aquaculture of Coral, Live Rock and Live Sand in WA* (2017) applies to operators in the Abrolhos FHPA.

Applications for the collection of broodstock for aquaculture at the Abrolhos FHPA can be granted, with further approval potentially required for any translocation of broodstock into the Abrolhos FHPA. In addition, any persons permitted to collect marine aquarium fish species for aquaculture broodstock purposes (e.g., hard coral, live rock, corallimorphs, anemones) are required, under the MAFR harvest strategy, to maintain and submit accurate records of all fishing activity. This is of relevance to hard coral broodstock collection specifically at the Abrolhos FHPA, where the MAFMF is not permitted to harvest hard coral.

Persons holding an aquaculture licence allowing activities within the Abrolhos FHPA are permitted to own camps on the Abrolhos Reserve.

²⁷ <http://www.fish.wa.gov.au/About-Us/Publications/Pages/default.aspx>

²⁸ AG 1 and 2 can be found at <http://www.fish.wa.gov.au/About-Us/Publications/Pages/default.aspx>

Proposed management

This draft plan does not seek to address specific management measures at the aquatic resource level. The management of fishing activities as they relate to aquatic resource management objectives and resource recovery plans (e.g., demersal scalefish) are managed under separate arrangements.

Recreational and fishing tour (charter) fishing

It is accepted that some of the proposed marine tourism management initiatives, and the associated zoning scheme covered under [Section 2.3 Marine Tourism and Recreation](#), will result in some changes to recreational and charter fishing activities in the Abrolhos FHPA.

While not linked directly to aquatic resource sustainability measures, the proposed marine tourism management initiatives are aligned with Abrolhos FHPA wilderness fishing concepts and will assist in managing competing uses and safety in key tourism areas such as ROAs and SMUAs. Recreational and charter fishing activities should therefore be aligned with the management objectives for the Abrolhos FHPA (i.e., low take/low takeaway wilderness fishing, amenity value/high fish abundance and safety and access for all users).

DPIRD proposes to introduce an Abrolhos FHPA Charter Operator Zone within the existing West Coast Charter Zone. A process will be implemented in consultation with operators to grant those West Coast Zone FTOL and RFTOL licensees with an Abrolhos FHPA Zone licence who satisfy entry criteria (to be developed). To assist in this, DPIRD proposes to apply two guiding principles when considering the future of charter fishing operations in the Abrolhos FHPA:

- 1. that, where there is a likelihood of over-exploitation of fish resources or unacceptable impact on the quality of the tourism experience, minimum performance criteria will be developed for continuing eligibility for fishing in the FHPA; and**
- 2. future access to the Abrolhos FHPA for West Coast Zone charter operators will be considered according to management objectives.**

This proposal is aimed at ensuring that future access to the Abrolhos FHPA by charter operators is aligned with the proposed management objectives for the Abrolhos FHPA (i.e., wilderness fishing).

Any current or future holder of a R/FTOL in the existing West Coast Charter Zone of the WACF are warned that any investment in charter fishing trips following the date of publication of this draft management plan will not be included for consideration for future access to the Abrolhos FHPA.

Commercial fishing

DPIRD will continue to facilitate world-class EBFM management, monitoring and reporting of commercial fisheries within the FHPA, in addition to EPBC Act export approvals and MSC certifications where applicable.

Aquaculture

This draft plan does not seek to address specific management measures for aquaculture. The management of aquaculture activities as they relate to aquaculture management objectives are managed under separate arrangements.

Aquaculture planning and management within the Abrolhos FHPA will be required to be compatible with the finalised management plan. This will ensure that:

- a) new aquaculture sites are not located within proposed SMUAs and ROAs; and
- b) new applications for aquaculture sites within the Abrolhos FHPA demonstrate consideration of other FHPA users' access (including navigation) and mitigating potential impacts to natural, cultural heritage, tourism and community values.

DPIRD will work to ensure a pathway is developed to facilitate appropriate and productive aquaculture operations within the Abrolhos FHPA in accordance with the direction outlined in the *Aquaculture Development Plan for Western Australia (2020)*. This will include strategies to ensure existing and new sites for aquaculture in the Abrolhos FHPA are of an appropriate size for production and licensed for commercially viable species, implementation of appropriate tenure (leases) and monitoring and performance criteria for all existing and new aquaculture sites in the Abrolhos FHPA.

There is also a need to improve reporting of aquatic resources taken for aquaculture broodstock and growout such as coral. Marine biosecurity will continue to feature strongly in licence conditions and the Management and Environmental Monitoring Plans as required by all aquaculture licensees.

DPIRD will also ensure appropriate management of marine based infrastructure for aquaculture operations (see [Section 2.5 Abrolhos Community](#)).

Management objectives and proposed actions

The proposed actions in the table below have been developed to achieve management objectives and strategic priorities for sustainable fisheries and aquaculture in the FHPA and manage the impacts from fishing and aquaculture activities on Abrolhos Reserve and National Park values. DPIRD's primary objective is to protect and conserve fishing and aquaculture values from the threat risks and impacts listed in [Table 9](#). The management actions below have also been informed by the outcomes of consultation undertaken for the Stakeholder Engagement Project during 2021.

Management Objectives	Management Actions
<i>Work with stakeholders to support the management of sustainable commercial wild-capture fisheries and take advantage of emerging market opportunities.</i>	1. Continue world-class EBFM management, monitoring and reporting of commercial fisheries within the FHPA, in addition to EPBC Act export approvals and Marine Stewardship Council certifications where applicable.
<i>Support commercial scale fish farming, and the development of aquaculture industries that create jobs, economic diversification and optimal utilisation of viable sites.</i>	2. Develop and implement an Abrolhos FHPA Aquaculture Management Plan that includes measures for: <ul style="list-style-type: none"> • appropriate site selection, site size and species • tenure (leases), monitoring and performance criteria • improved reporting of aquatic resources taken for aquaculture broodstock and growout.
<i>Support the management of sustainable recreational and charter fishing activities consistent with management objectives and the protection of key values in the Abrolhos FHPA.</i>	3. In consultation with stakeholders, introduce an Abrolhos FHPA Charter Operator Zone within the West Coast Zone of the WA Charter Fishery and associated Abrolhos FHPA Charter Zone fishing tour and restricted fishing tour operator licencing. 4. Ensure that recreational and charter fishing catches are meeting the management objectives for the Abrolhos FHPA as set out in this management plan. 5. Undertake periodic recreational fishing surveys in the Abrolhos FHPA. 6. Investigate ways to improve visitor data collection and information as it relates to recreational and charter fishing.

2.5 Abrolhos Community

The Abrolhos community includes the local regional community, residents, commercial tour operators and other regular visitors to the Abrolhos FHPA. The Abrolhos community recognises a range of values that are a significant part of working and recreating at the Islands. Understanding the aspirations of the Abrolhos community is a priority consideration when considering marine management and planning in the Abrolhos FHPA.



Image 29- Sunrise at Pigeon Island, Wallabi Group. Credit: DPIRD.

Abrolhos FHPA community values

The independent stakeholder engagement project discussed in [Section 1.5](#) has provided valuable feedback on community expectations. The following is an example of the values that underpin the Abrolhos community's relationship with the Abrolhos FHPA:

- Stewardship and connection to the history, marine environment and wildlife
- Generations of family businesses
- Unique work environment
- Amenity, remoteness, lifestyle
- Local history, memories, knowledge, stories and experiences
- Affinity and 'sense of place'
- Belonging to a unique local community, friends and family
- Community safety and management of access and activities
- Community structures such as schools, community halls, sport facilities and community events

Private commercial (fishing and aquaculture) marine infrastructure

Commercial rock lobster and aquaculture licensees own marine infrastructure to support their operations such as jetties, moorings, pontoons and holding tanks. There are 132 private commercial jetties adjacent to inhabited islands in the Arolhos Reserve and 188 private commercial moorings which are generally located in mooring areas adjacent to camps.



Image 30- Jetty, Uncle Margie Island, Pelsaert Group. Credit: DPIRD, N Moore.



Image 31- Jetties at Rat Island, Easter Group. Credit: DPIRD, M Killick.

Volunteer and community groups

There are a range of groups that carry out volunteer programs at the islands such as Durack TAFE's Batavia Maritime Institute. Volunteers can join trips to the Islands to assist in weed and pest management, rubbish collection, rehabilitation and assessing wildlife populations.

Community engagement

There is significant community interest in management of the Arolhos across a wide range of sectors: commercial fishing, aquaculture, recreational fishing, tourism, conservation and heritage.

DPIRD will continue working to build our relationship with the community and will work to discuss and develop solutions to management and operational issues. DPIRD will also work with DBCA and our partner agencies to explore opportunities to increase engagement with other stakeholders and the wider community and share important management information relating to the Abrolhos.

Issues and challenges

Table 10: Issues and challenges associated with preserving Abrolhos community values in the Abrolhos FHPA

Issue	Challenges	Responsibility
Increased visitation and commercial marine tourism in the FHPA	<ul style="list-style-type: none"> • Illegal use of private infrastructure by the public • Maintaining tourism and recreation in the FHPA while conserving Abrolhos community values • Promoting wider community awareness on the important and unique social and cultural values of the Abrolhos community 	DPIRD
Marine infrastructure standards	<ul style="list-style-type: none"> • Ensuring existing marine infrastructure meets relevant building and safety standards • Ensuring regular maintenance • Regular compliance audits by appropriate authorities 	DPIRD DoT
Management and licensing for commercial fishing and aquaculture marine infrastructure	<ul style="list-style-type: none"> • Multiple agency management and licensing • Development of IT systems to manage licensing and approvals • New licensing framework required • New policies, legislation and guidelines required 	DPIRD DoT
Marine safety	<ul style="list-style-type: none"> • Multiple agency management • lack of cellular network • lack of on-island medical services all year round • Medical emergency response • Evacuations (cyclones, tsunamis) • Knowledge of emergency framework and services 	See Section 2.3
Revenue and cost recovery	<ul style="list-style-type: none"> • No revenue currently generated to assist in management and compliance costs 	DPIRD

Current management tools

DPIRD manages the location, design and installation of commercial fishing and aquaculture marine infrastructure such as jetties, moorings and fixed floating infrastructure such as pontoon and holding cages. Approval is required under the FRMR prior to installing a commercial fishing or aquaculture jetty or mooring. Jetties and moorings owned by commercial fishing and aquaculture licensees can be used by any person with written permission, a copy of which must be provided to DPIRD.

DPIRD will work with stakeholders to update all management arrangements for commercial fishing and aquaculture marine infrastructure and consolidate this into a **Commercial Fishing and Aquaculture Marine Infrastructure Management Plan**. The Management Plan will align with the Abrolhos FHPA Zoning Scheme (see [Section 2.3](#)) and will ensure:

1. correct safety standards for existing and new infrastructure
2. suitable design, installation and use requirements
3. appropriate site selection
4. removal of abandoned/derelict and unauthorised infrastructure
5. transfer arrangements; and
6. a fee structure for approvals and licensing.

The outcomes and recommendations of the final mooring review and analysis report will be used to guide the development of management measures for commercial fishing and aquaculture moorings.



Image 32- collapsed jetty, Rat Island, Easter Group. Credit: DPIRD, N Moore.

Currently DoT is responsible for the management of most (but not all) moorings in State coastal waters. DoT is also responsible for licensing jetties. Until recently, WA's moorings were managed under two separate sets of regulations. Amendments to the *Mooring Regulations 1998* have been implemented following a comprehensive two-year engagement with key stakeholders and two rounds of public consultation (DoT 2021).

DoT will work systematically to license moorings in WA through the declaration of new Mooring Control Areas. DPIRD will work with DoT to develop a mooring licensing framework for commercial fishing and aquaculture mooring owners in the Abrolhos FHPA.

DPIRD regularly facilitates education and community engagement programs across WA. Regular communication with the wider community will promote awareness of the important and unique social and cultural values of the Abrolhos community. One of DPIRD’s objectives is to promote the Abrolhos FHPA as a WA community owned asset that allows for equitable access for all sectors to carry out a diverse range of activities within a sustainable framework. Maintaining tourism and recreation in the FHPA while conserving Abrolhos community values will be an important step in achieving this.

DPIRD has released a significant amount of information relating to the Abrolhos Islands in the past and plans to review and update all existing educative material relevant to all Abrolhos FHPA users.

DPIRD also plans to undertake regular consultation with affected stakeholders and provide information forums for the community. It is important that all Abrolhos FHPA users are aware of opportunities to be involved in the planning and management of the FHPA to foster greater appreciation of its key values.

Management objectives and proposed actions

The proposed management actions in the table below have been developed to achieve management objectives and strategic priorities for the Abrolhos community in the FHPA. DPIRD’s primary objective is to meet the challenges listed in [Table 10](#). The management actions below have also been informed by the outcomes of consultation undertaken for the Stakeholder Engagement Project during 2021.

Management Objectives	Management Actions – Abrolhos Community
<i>Promote the Abrolhos FHPA as a Western Australian community asset and facilitate a diverse range of activities within a sustainable framework.</i>	<ol style="list-style-type: none"> 1. In partnership with DBCA, explore opportunities to enhance community and stakeholder engagement and sharing of management information relating to the Abrolhos Islands. 2. Continue to support volunteer involvement in management activities in the FHPA and promote wider community awareness around the local community and social values.
<i>Implement a management and licensing framework designed to improve safety, standards and maintenance of commercial marine fishing and aquaculture infrastructure in the FHPA.</i>	<ol style="list-style-type: none"> 3. Work with stakeholders to develop a Commercial Fishing and Aquaculture Marine Infrastructure Management Plan that aligns with the Abrolhos FHPA Draft Zoning Scheme (see Section 2.3) and ensures correct safety standards, suitable design and appropriate site selection. 4. Collaborate with the Department of Transport to implement a licensing framework for commercial fishing and aquaculture moorings.

2.6 Governance

Governance values

Due to the multijurisdictional nature, it is essential that government agencies work together to achieve State Government's vision and key priorities for the Abrolhos Islands and FHPA. Effective cross-government collaboration (refer to [Section 1.5](#)) will ensure consistent management across tenures and result in good governance outcomes. DPIRD collaboration with partner agencies including DBCA, WAM and DoT is a fundamental part of achieving management objectives across tenures, and for all values.

The identification of stakeholders (refer to [Section 1.5](#)) and meaningful consultation is required for effective governance and management. The knowledge and experience of stakeholders and their connection to the islands is of great value. The engagement of stakeholders to date has provided important information during the development of this draft plan. Further consultation and feedback will continue to shape and inform future planning. DPIRD will work to engage stakeholders on a regular basis in the longer term.

Contemporary and transparent policy and legislation is required to protect and conserve the key values of the Abrolhos FHPA, and to assist in managing the impact of FHPA users on the Abrolhos Reserve and National Park. This draft plan aims to address those needs in a timely manner, based on priorities. Appropriate resources, funding and revenue will be key to achieving better management outcomes for the WA community.

Sharing of assets, resources and services across relevant agencies reduces cost and streamlines management. DPIRD will work with partner agencies to identify and implement shared operational arrangements wherever possible.



Image 33- DPIRD fisheries compliance and education patrol vessels Credit: DPIRD.

Issues and risks

Table 11: Issues and risks associated with governance in the Abrolhos FHPA

Issue	Risk	Responsibility
<p>Funding and resources</p> <p>Implementation of FHPA management objectives and actions</p>	<ul style="list-style-type: none"> • Unable to achieve Government's Strategic Direction • Some FHPA management actions are not implemented • Some FHPA management objectives are not met • Unable to protect and conserve FHPA values • Lack of adequate public marine infrastructure • Basic maintenance • Basic administration systems • Risks to user safety and liability 	<p>State Government</p> <p>Relevant agencies</p>
<p>Revenue and cost recovery</p>	<ul style="list-style-type: none"> • Lack of revenue to assist in maintaining existing and new public infrastructure • Inadequate compliance and administration systems • Risks to safety and liability 	<p>DPIRD</p> <p>Relevant agencies</p>
<p>Policy and legislation</p>	<ul style="list-style-type: none"> • Policy and legislation not implemented or not suitable to protect key values • Management actions are not implemented • FHPA objectives are not met • Strategic Direction key priorities not met • ARMA implementation delays regulation changes 	<p>DPIRD</p>
<p>Cross-tenure governance framework and operational management</p>	<ul style="list-style-type: none"> • Lack of understanding, management and protection of key values across all tenures • Inconsistent strategic and management frameworks • Lack of cross-tenure operational management 	<p>DPIRD</p> <p>DBCA</p> <p>WAM</p> <p>DoT</p> <p>CGG</p> <p>TWA</p>
<p>Administration and licensing systems</p>	<ul style="list-style-type: none"> • Lack of funding and resources required to develop administration systems for licensing • Lack of collaborative use of existing licensing and management systems 	<p>DPIRD</p> <p>DBCA</p> <p>DoT</p>
<p>Consultation</p>	<ul style="list-style-type: none"> • Regular consultation and information sharing not undertaken • Engagement of the entire community not achieved • Lack of agency understanding and knowledge • Lack of understanding impacts on users 	<p>DPIRD</p>

<p>FHPA Research and data collection programs</p> <p>Monitoring and reporting</p>	<ul style="list-style-type: none"> • Lack of research, data collection, monitoring and reporting leading to: <ul style="list-style-type: none"> ○ inappropriate planning and management measures ○ gaps in knowledge ○ unacceptable risk to values ○ lack of community awareness and stewardship 	<p>DPIRD</p>
<p>Compliance and education</p>	<ul style="list-style-type: none"> • Management measures not complied with leading to: <ul style="list-style-type: none"> ○ FHPA management objectives not being met ○ DPIRD strategic priorities not being met ○ Government's key priorities not being met ○ unacceptable risk to FHPA values ○ Unacceptable risk to safety and liability ○ Lack of community knowledge and understanding on the importance of measures 	<p>DPIRD</p>

Management objectives and proposed actions

Stakeholders agree there is a clear need to update existing legislation and policies relevant to management of the Abrolhos FHPA and improve the consistency and transparency of decision-making by Government.

The proposed management actions in the table below have been developed to achieve management objectives and strategic priorities for governance in the FHPA. DPIRD's primary objective is to mitigate the risks to governance listed in [Table 11](#). The management actions below have also been informed by the outcomes of consultation undertaken for the Stakeholder Engagement Project during 2021.

Management Objectives	Management Actions
<i>Seek and obtain adequate funding and resources required to effectively achieve State Government's strategic direction for the Abrolhos FHPA.</i>	1. Introduce a long-term sustainable funding, revenue and resource framework to support effective administration and management of the Abrolhos FHPA.
<i>Ensure that FHPA legislation and policy is contemporary and fit for purpose, and that decision-making processes are consistent and transparent.</i>	2. Develop and implement contemporary and transparent Abrolhos FHPA policies, guidelines and legislation in accordance with the priorities set out in this management plan.
<i>Work with partner agencies to apply a cooperative inter-agency management approach that will facilitate seamless management across all tenures.</i>	3. Set up an appropriate and ongoing governance framework to work collaboratively with DBCA, the WA Museum and other relevant agencies to enhance understanding, management and protection of key values across tenures. 4. Work with partner agencies to improve cooperative operational management arrangements across all tenures including sharing of services and assets, collaborative operational planning, and cross-authorisation of staff.
<i>Implement, monitor and review management actions, and carry out collaborative research that is aimed at informing future planning and management needs.</i>	5. Monitor implementation of this plan through: a. regular monitoring of progress of actions in accordance with priorities (refer to Appendix 1); and b. a formal mid-term review commencing in 2027 including undertaking a FHPA risk assessment. 6. Identify opportunities to collaborate with partner agencies and research organisations to carry out targeted research programs to support future planning and management. 7. Clarify the ethics and licensing requirements for non-government organisations taking or disturbing aquatic organisms for the purpose of undertaking biological assessment, scientific or other purposes in the Abrolhos FHPA.



Image 34- Recreational boats moored at Morley Island, Easter Group. Credit: DPIRD.

References

Documents or websites referred to in, or used to inform this plan are listed below.

Abrolhos Islands Moorings Review and Analysis Project – Final Report. (2021). Prepared by Wavelength Consulting for the Department of Primary Industries and Regional Development, Western Australia.

Australian Maritime Safety Authority (Commonwealth). 2021. <https://www.amsa.gov.au/>

Bellchambers LM, How J, Evans SN, Pember MB, de Lestang S and Caputi N. (2017). *Ecological Assessment Report: Western Rock Lobster Resource of Western Australia.* Fisheries Research Report No. 279, Department of Fisheries, Western Australia.

Boating WA. 2021. <https://boatingwa.com.au/>

Bureau of Meteorology (Commonwealth). 2021. http://www.bom.gov.au/climate/averages/tables/cw_008290.shtml

Caputi, N., Pearce, A. and Lenanton, R. 2010. *Fisheries-dependent indicators of climate change in Western Australia.* WAMSI Sub-project 4.2.3. Fisheries Research Report No. 213. Department of Fisheries, Western Australia.

Caputi, N.1, Feng, M.2, Pearce, A.1, Benthuisen, J.5, Denham, A.1, Hetzel, Y.1, Matear, R.3, Jackson, G.1, Molony, B.1, Joll, L.4 and Chandrapavan A.1 (2015). *Management implications of climate change effect on fisheries in Western Australia, Part 1: Environmental change and risk assessment.* FRDC Project No. 2010/535. Fisheries Research Report No. 260. Department of Fisheries, Western Australia.

Caputi, N., Feng, M., Pearce, A., Benthuisen, J., Denham, A., Hetzel, Y., Matear, R., Jackson, G., Molony, B., Joll, L. and Chandrapavan A. (2015). *Management implications of climate change effect on fisheries in Western Australia, Part 2: Case studies.* FRDC Project No. 2010/535. Fisheries Research Report No. 261. Department of Fisheries, Western Australia.

City of Greater Geraldton. 2021. <https://www.cgg.wa.gov.au/>

Civil Aviation Safety Authority (Commonwealth). 2021. <https://www.casa.gov.au/>

Chandrapavan A, Kangas M, Caputi N. 2020. *Understanding recruitment variation (including the collapse) of Ballot's saucer scallop stocks in Western Australia and assessing the feasibility of assisted recovery measures for improved management in a changing environment.* Fisheries Research Report No. 308. Department of Primary Industries and Regional Development, Western Australia.

Commonwealth Scientific and Industrial Research Organisation. 2021. <https://www.csiro.au/en/about/people/business-units/oceans-and-atmosphere>

Commonwealth of Australia (2019b), *National Light Pollution Guidelines for Wildlife Including Marine Turtles, Seabirds and Migratory Shorebirds*, Commonwealth of Australia, Canberra.

Commonwealth of Australia (2013), *Recovery Plan for the Australian Sea Lion (Neophoca cinerea) 2013*, Department of Sustainability, Environment, Water, Populations and Communities, Canberra.

Conservation Council of WA. 2021. <https://www.ccwa.org.au/>

Conservation and Parks Commission. 2021. <https://www.conservation.wa.gov.au/>

de Lestang, S., Pember, M. and Slawinski, D. 2019. *Development of an industry-based habitat mapping/monitoring*. Fisheries Research Report No. 296, Department of Primary Industries and Regional Development, Western Australia.

Department of Agriculture, Water and the Environment (Commonwealth). 2021. <https://www.awe.gov.au/>

Department of Biodiversity, Conservation and Attractions (State). 2021. <https://www.dbca.wa.gov.au/>

Department of Fire and Emergency Services (State). 2021. <https://www.dfes.wa.gov.au/site/>

Department of Foreign Affairs and Trade (Commonwealth). 2021. <https://www.dfat.gov.au/>

Department of Health (State). 2021. <https://ww2.health.wa.gov.au/>

Department of Planning, Lands and Heritage (State). 2021. <https://www.wa.gov.au/organisation/department-of-planning-lands-and-heritage>

Department of Primary Industries and Regional Development (State). 2021. <http://www.fish.wa.gov.au/sustainability-and-environment/abrolhos-islands/Pages/default.aspx>

Department of Transport (State). 2021. <https://www.transport.wa.gov.au/imarine/marine-information.asp>

Environmental Protection Authority (State). 2021. <https://www.epa.wa.gov.au/>

Evans, S.N., Konzewitsch, N. and Bellchambers, L.M. 2022. *Houtman Abrolhos Islands Fish Habitat Protection Area: A Summary of Marine Resource Use and Ecological Attributes*. Fisheries Research Report No. 321 Department of Primary Industries and Regional Development, Western Australia. 159 pp.

Harvest Strategy Policy and Operational Guidelines for the Aquatic Resources of Western Australia. 2015. Fisheries Management Paper No. 271. Department of Primary Industries and Regional Development, Western Australia.

Henry GW, Lyle JM (2003). *The National Recreational and Indigenous Fishing Survey*. Final Report for FRDC Project No. 99/158. Australian Government Department of Agriculture, Fisheries and Forestry, Canberra.

Heritage Council of WA. 2021. <https://www.wa.gov.au/organisation/heritage-council-of-western-australia>

Houtman Abrolhos Islands Conservation Network. (2021). <https://www.houtmanabrolhosislands.com/>

Houtman Abrolhos Islands National Park Draft Management Plan 2021 (2021). Department of Biodiversity, Conservation and Attractions.

Exploring the Houtman Abrolhos islands. Fisheries Occasional Paper 105. 2012. Department of Primary Industries and Regional Development, Western Australia.

Fishwatch (2021). Department of Primary Industries and Regional Development, Western Australia. <https://www.fish.wa.gov.au/About-Us/Contact-Us/Pages/Fish-watch.aspx>

Gaughan, D.J. and Santoro, K. (eds). 2021. *Status Reports of the Fisheries and Aquatic Resources of Western Australia 2019/20: The State of the Fisheries*. Department of Primary Industries and Regional Development, Western Australia.

Gray, H. (1993). Houtman Abrolhos Islands – Cultural Heritage. Prepared for the Abrolhos Islands Consultative Council.

Green, G.A., Pasveer, J, Souter, C and Stanbury M. (2001). *Draft Management Plan for the protection and use of historic shipwreck and associated maritime heritage sites in the Wallabi Group of the Houtman Abrolhos System*. Report - Department of Maritime Archaeology WA Maritime Museum No. 151.

Green, G.A. and Stanbury, M. (1988.) *Report and Recommendations on Archaeological Sites in the Houtman Abrolhos*. Report: Department of Maritime Archaeology, Western Australian Museum, No. 29, 1988.

Houtman Abrolhos Islands Strategic Direction 2020 – 2024 (2020). WA State Government.

How J., D. Coughran, M. Double, K. Rushworth, B. Hebiton, J. Smith, J. Harrison, M. Taylor, D. Paton, G. McPherson, C. McPherson, A. Recalde Salas, C. Salgado-Kent and S. de Lestang 2020. *Mitigation measures to reduce entanglements of migrating whales with commercial fishing gear*. FRDC 2014-004. Fisheries Research Report No. 304. Department of Primary Industries and Regional Development, Western Australia.

Inventory of the Land Conservation Values of the Houtman Abrolhos Islands. 2003. Fisheries Management Paper 151. Department of Fisheries, Western Australia.

J C Phillips & J M Huisman 2009 Influence of the Leeuwin Current on the Marine Flora of the Houtman Abrolhos *Journal of the Royal Society of Western Australia*, 92: 139-146.

Lindner RK, McLeod PB (1991). *An economic impact of recreational fishing in Western Australia*. Fisheries Management Paper No. 38. Department of Fisheries, Western Australia. 48 pp.

Management of the Houtman Abrolhos System – a Draft Review 2007 – 2017. 2007. Fisheries Management Paper 220. Abrolhos Islands Management Advisory Committee and the Department of Fisheries, Western Australia.

Management of the Houtman Abrolhos System. Fisheries Management Paper 117. 1998. Abrolhos Islands Management Advisory Committee and the Department of Fisheries, Western Australia.

Marine Tourism WA. (2021). <https://www.marinetourismwa.com.au/>

Master Visitor Plan for the Wallabi Group of the Houtman Abrolhos Islands. 2014. Prepared by TRC Tourism for the WA Museum.

Middleton, S (2021). *Abrolhos Reserve and FHPA Consultation Report*. Prepared by AgDots Consulting for the Department of Primary Industries and Regional Development, Western Australia.

Midwest Tourism Development Strategy. 2014. Prepared by Evolve Solutions for the Midwest Development Commission.

Munoz, J and McDonald, J 2014. *Potential Eradication and Control Methods for the Management of the Ascidian *Didemnum perlucidum* in Western Australia*. Fisheries Research Report 252. Department of Primary Industries and Regional Development, Western Australia.

National Trust of Australia. 2021. <https://www.nationaltrust.org.au/>

Parks Australia. 2021. <https://parksaustralia.gov.au/marine/parks/south-west/abrolhos/>

Primary Industries Plan 2020 – 2024 (2020). Department of Primary Industries and Regional Development, Western Australia.

Redmap (2021). <https://www.redmap.org.au/article/sea-temperatures-and-climate-change-in-western-australia/>

Richards, Z (2018). *The Coral Compactus: Western Australia Hard Coral Genus Identification Guide Version 2*. Western Australian Museum.

Rottneest Island Authority. 2021. <https://ria.wa.gov.au/>

Ryan KL, Hall NG, Lai EK, Smallwood CB, Tate A, Taylor SM, Wise BS 2019. *Statewide survey of boat-based recreational fishing in Western Australia 2017/18*. Fisheries Research Report No. 297. Department of Primary Industries and Regional Development, Western Australia.

Sharksmart <https://www.sharksmart.com.au/>

Shaw, J., in collaboration with the Abrolhos Islands fishing community, (2013). *Seeing Change: A photographic story from Abrolhos fishers*, Northern Agricultural Catchments Council, Geraldton.

State Emergency Management Committee (2021). <https://semc.wa.gov.au/>

Stanbury, M. (1993). *Historical Sites of the Easter Group, Houtman Abrolhos, WA*. Report: Department of Maritime Archaeology, Western Australian Museum, No. 66.

Stanbury, M. (1991). *Historic areas of the Houtman Abrolhos. Code of Conduct recommendations for visitors to the Islands*. Department of Maritime Archaeology, Western Australian Maritime Museum.

Strategic Intent 2018 – 2021 (2018). Department of Primary Industries and Regional Development, Western Australia.

The Houtman Abrolhos Islands Management Plan. (2012). Fisheries Management Paper No. 260. Department of Fisheries, Western Australia.

Tourism Council of WA. 2021.

https://www.tourism.wa.gov.au/Pages/welcome_to_tourism_western_australia.aspx#/

Western Australian Legislation. 2021. <https://www.legislation.wa.gov.au/>

Western Australian Museum. 2021. <https://visit.museum.wa.gov.au/maritime>

Glossary

Term, acronym or abbreviation	Definition or term in full
Abrolhos/Abrolhos Islands	Houtman Abrolhos (land and waters)
Abrolhos FHPA	Abrolhos Islands Fish Habitat Protection Area set aside under section 115 of the FRMA, the area of WA waters adjacent to the Abrolhos Islands from the high-water mark to the seaward limits of the coastal waters of the State
Abrolhos FHPA DFZ	Houtman Abrolhos Islands Fish Habitat Protection Area Draft Zoning Scheme 2022 Part 2
Abrolhos FHPA users	All persons accessing the waters of the Abrolhos FHPA including visitors, commercial fishers, recreational and charter fishers, aquaculture operators and eco-tourism operators.
Abrolhos Reserve	All the land and waters contained in Class A Reserve 20253 (managed by DPIRD on behalf of the Minister for Fisheries)
Aquaculture	The keeping, breeding, hatching, culturing or harvesting of fish
Aquatic eco-tourism	Tourism relating to fish in their natural environment and includes the viewing or feeding of fish but does not include the taking of fish
Aquatic organism	An aquatic organism of any species (whether alive or dead) and includes — (a) (b) (c) the eggs, spat, spawn, seeds, spores, fry, larva or other source of reproduction or offspring of an aquatic organism; and a part only of an aquatic organism (including the shell or tail); and live rock and live sand, but does not include aquatic mammals, aquatic reptiles, aquatic birds, amphibians or <i>Pinctada maxima</i> pearl oysters.
Aquatic resource	Includes biochemicals, genetic resources, organisms, populations and other biotic components of an aquatic ecosystem that are of actual or potential use, or of actual or potential value, to humanity
ARMA	<i>Aquatic Resources Management Act 2016</i>
Biosecurity	The management of the risk of animal and plant pests and diseases entering, emerging, establishing or spreading in Western Australia
Boat	A vessel, craft or floating platform of any description that is capable of use in or on water, whether floating or submersible
Broodstock	Aquatic resources taken or kept for breeding
CGG	City of Greater Geraldton
Commercial	The purpose of sale or any other purpose that is directed to gain or reward
DBCA	Department of Biodiversity, Conservation and Attractions
DoT	Department of Transport
DPIRD	Department of Primary Industries and Regional Development
ETP	Endangered, threatened and protected species
Export approval	Approval provided by the Commonwealth to allow export of sustainably caught Australian seafood

Term, acronym or abbreviation	Definition or term in full
Fishing	Searching for fish; attempting to take fish; taking fish; engaging in any other activity that can reasonably be expected to result in the taking of fish.
Fishing tour	Means a tour a central purpose of which is to provide an opportunity for recreational fishing and may include the provision of fishing guidance, fishing gear, accommodation or transport
FRMA	<i>Fish Resources Management Act 1994</i>
FRMR	<i>Fish Resources Management Regulations 1995</i>
High-water mark	The highest point reached by a high tide
Haul up	Pulling a tender onto the shoreline, either into the intertidal zone, or above the high-water mark
Intertidal area	The area that sits between the low and high-water mark
IUCN	International Union for the Conservation of Nature
Jetty	Any jetty, pier, wharf, quay, grid, slip, landing place, stage, platform (other than a platform that is a vessel for the purposes of the <i>Western Australian Marine Act 1982</i>) or similar structure, whether fixed or floating, erected or placed, wholly or in part, in, on or over any waters; and any ramp which is or which may be used for the purpose of launching or landing a vessel
Low-water mark	The lowest point reached by a low tide
MSC	Marine Stewardship Council
Midwest Region	Midwest Region of Western Australia as defined in the <i>Regional Development Commissions Act 1993</i>
Mooring	Any gear (including an anchor or stake) set out in a permanent manner to which a vessel or other floating structure may be secured by a chain, cable, wire or rope
National Park	Houtman Abrolhos Islands National Park (vested in the Conservation and Parks Commission)
Platform, pontoon, raft, barge	See Jetty
Public marine infrastructure	Any marine infrastructure the property of government or vested in any person on behalf of government
Private marine infrastructure	Any marine infrastructure used and maintained by any person not being a person representing or acting on behalf of government
Recreational	Activities not related to a commercial purpose or gain
ROA	Reef Observation Area
Regulations	<i>Fish Resources Management Regulations 1995</i>
RFBL	Recreational Fishing from a Boat Licence issued by DPIRD
State waters	The area of waters within the limits of the State of Western Australia adjacent to the Abrolhos Islands from the high-water mark to the seaward limits of the coastal waters of the State

Term, acronym or abbreviation	Definition or term in full
Strategic Direction	The Houtman Abrolhos Islands Strategic Direction 2020 – 24
Tenure	The manner in which a party holds or occupies land
Tourism licence	Means a licence granted by the Minister for Fisheries to permit tourism activity at the Abrolhos, which may include a Fishing Tour Operator Licence.
This plan	The Houtman Abrolhos Islands Fish Habitat Protection Area Draft Management Plan 2022 Part 1
UNCLOS	United Nations Convention for the Law of the Sea
WA Museum/WAM	Western Australian Museum
WCB	West Coast Bioregion
White boat	Privately owned recreational boat
Whole of government	Collaborative management approach that includes more than one government agency to manage a particular community asset

Appendix 1: Prioritised Summary Action Table

Summarised in order of relative priority under each strategic priority as follows:

- 1 Immediate implementation
- 2 Short-term – within one – two years
- 3 Mid-term – within five years
- 4 Long-term – within 10 years, or ongoing
- N/A – supporting role only

[Funding dependent]

Action No.	1. Nature Conservation and Protection	Relative Priority
1	In collaboration with stakeholders, review the broader principles, objectives and locations of ROAs in the Abrolhos FHPA as they relate to achieving nature conservation and protection outcomes.	1
2	Work with DoT to consider further educational tools to improve FHPA users' knowledge of existing Commonwealth and State legislation managing marine waste, pollution and vessel sewage discharge in the FHPA.	1
3	Move ROA legislation to the regulations and introduce a prohibition on anchoring in all marine benthic habitat other than sand/mud in the FHPA.	2
4	Include identified high-risk marinas/ports that home berth vessels visiting the Abrolhos FHPA in the Statewide Array Surveillance Program (SWASP) (where not included already) and include the Abrolhos FHPA in the SWASP.	[2]
5	Update education material to promote community and visitor awareness and understanding of the important natural values of the Abrolhos FHPA.	2
6	Investigate ways to improve the collection of data and information as it relates to FHPA users accessing the marine environment.	2

7	Review the current marine biosecurity requirements for Abrolhos FHPA users and develop a Marine Biosecurity Plan following the commencement of ARMA.	[3]
8	Develop a Marine Research and Monitoring Plan to support protection and conservation the natural values of the Abrolhos FHPA.	[3]
9	Ensure all new public and private marine infrastructure is located in accordance with the Abrolhos FHPA Zoning Scheme and installed, designed and used in such a way as to reduce risks to the Abrolhos FHPA marine ecosystem and habitat.	4
10	Support DBCA to improve the collection of data and information for FHPA users accessing the National Park.	N/A
11	Support DBCA to minimise the disturbance on terrestrial natural values caused by (1) the location and use of marine-based infrastructure adjacent to the National Park and (2) FHPA users accessing the National Park.	N/A
12	Support the development of biosecurity and visitor education requirements to manage risks associated with weed and pest animal introductions in the Reserve and National Park.	N/A

Action No.	2. Cultural Heritage Protection	Relative Priority
1	Collaborate with the WA Museum and Heritage Council to determine mechanisms to identify and protect maritime archaeological sites in the Abrolhos FHPA not currently listed under legislation.	1
2	Implement nine new Special Marine Use Area – Maritime Heritage sites and associated regulations in accordance with the Abrolhos FHPA Zoning Scheme .	2
3	Engage the WA Museum when planning for the installation of any new public or private commercial marine-based infrastructure located near key maritime heritage sites in the Abrolhos FHPA.	4
4	Support the WA Museum and DBCA to assess and manage the risks posed by FHPA users accessing key marine and terrestrial heritage sites in the Abrolhos FHPA and National Park.	N/A
5	Support the development of interpretation material to increase awareness, understanding and appreciation of the unique cultural heritage values in the FHPA, Reserve and National Park.	N/A
6	Support community and visitor education programs that improve awareness of the importance of conserving and protecting maritime and terrestrial heritage sites.	N/A

Action No.	3. Marine Tourism and Recreation	Relative Priority
1	In consultation with stakeholders, evaluate all marine-based activities undertaken in ROAs and other popular sites to identify and prioritise key marine-based tourism and recreation locations.	1
9	Implement a Commercial Marine Tourism Infrastructure Management Plan in accordance with the Abrolhos FHPA Zoning Scheme to ensure correct safety standards, suitable design and appropriate site selection.	[1]
10	Implement a licensing and approval process for the installation and use of all private commercial marine tourism infrastructure including any form of fixed, floating platform in the Abrolhos FHPA.	[1]
13	Identify and promote safe locations to anchor in varying weather conditions.	1
12	In consultation with existing private commercial mooring owners, investigate opportunities to establish an 'opt in' framework for allowing public rental of private commercial moorings.	
16	Consider ways to use the online notification form to increase education and awareness of safety at sea for Abrolhos FHPA users.	1
18	Introduce a licensing requirement for all non-extractive commercial marine tour operators in the Abrolhos FHPA, including eco – tours, self-steer hire vessels, ferries, expedition and cruise ships etc.	[1]
19	Introduce an approval process for all persons wishing to undertake the following in the Abrolhos FHPA: <ul style="list-style-type: none"> • produce film, photography or any type of audio-visual product for a commercial purpose or gain • hold any type of commercial event. 	[1]
22	Collaborate with the Department of Transport to review the licensing requirements for jetties owned by commercial tourism operators in the Abrolhos FHPA.	1
24	In collaboration with DBCA, conduct a competitive process to ascertain commercial interest in tourism ventures at the Abrolhos, across all tenures.	[1]
2	Establish a Special Marine Use Area – Wilderness Fishing across the entire Abrolhos FHPA and associated regulations including reducing the possession limit to two whole fish (or fish trunks) or four pieces of fish from the demersal scalefish and pelagic species groups.	2

Action No.	3. Marine Tourism and Recreation cont.	Relative Priority
3	Establish four new Special Marine Use Area – Tourism sites and associated regulations in accordance with the Abrolhos FHPA Zoning Scheme .	2
5	Introduce an entry fee for all private recreational boats (where no person on board holds a RFBL or recreational rock lobster licence) entering the Abrolhos FHPA with a target implementation date of 1 February 2023.	[2]
6	In consultation with stakeholders, scope the potential to introduce a public mooring booking system and fee structure with a target implementation date of 1 February 2024.	[2]
8	Improve the collection of data and information as it relates to marine tourism and recreation.	2
17	Collaborate with the Department of Transport to develop a boating guide for the Abrolhos FHPA.	2
20	In consultation with stakeholders, identify up to three appropriate sites for landing marine aircraft (seaplanes, boat planes) in the Abrolhos FHPA and implement an approval process for landing marine aircraft.	2
21	Implement measures to ensure Abrolhos-based marine tourism operators are accredited and trained to ensure best practice environmental and management standards, and a high-quality visitor experience.	2
23	Collaborate with the Department of Transport to implement a licensing framework for commercial tourism moorings.	[2]
4	Regularly maintain all seven existing dive trails and consider the need for additional dive trails at key locations.	[3]
11	Work with Reserve residents to ensure that private and public marine tourism infrastructure is located in a way that does not significantly disturb residents or commercial fishing and aquaculture operations.	4
14	Maintain DPIRD's presence and active engagement on the District Emergency Management Committee and Local Emergency Management Committee.	4
15	Ensure FHPA users have access to information detailing the marine safety and emergency services available, and requirements to visit the Abrolhos FHPA safely.	4
7	Support the preparation and implementation of an integrated interpretation program for the Abrolhos FHPA, Reserve and National Park.	N/A

Action No.	4. Sustainable Fisheries and Aquaculture	Relative Priority
6	Investigate ways to improve visitor data collection and information as it relates to recreational and charter fishing.	1
3	In consultation with stakeholders, introduce an Abrolhos FHPA Charter Operator Zone within the West Coast Zone of the WA Charter Fishery and associated Abrolhos FHPA Charter Zone fishing tour and restricted fishing tour operator licencing.	[2]
5	Undertake periodic recreational fishing surveys in the Abrolhos FHPA.	[2]
2	Develop and implement an Abrolhos FHPA Aquaculture Management Plan that includes measures for: <ul style="list-style-type: none"> • appropriate site selection, site size and species • tenure (leases), monitoring and performance criteria • improved reporting of aquatic resources taken for aquaculture broodstock and growout. 	3
1	Continue world-class EBFM management, monitoring and reporting of commercial fisheries within the FHPA, in addition to EPBC Act export approvals and Marine Stewardship Council certifications where applicable.	4
4	Ensure that recreational and charter fishing catches are meeting the management objectives for the Abrolhos FHPA as set out in this management plan.	4

Action No.	5. Abrolhos Community	Relative Priority
1	In partnership with DBCA, explore opportunities to enhance community and stakeholder engagement and sharing of management information relating to the Abrolhos Islands.	1
3	Work with stakeholders to develop a Commercial Fishing and Aquaculture Marine Infrastructure Management Plan that aligns with the Abrolhos FHPA Zoning Scheme and ensures correct safety standards, suitable design and appropriate site selection.	[1]
4	Collaborate with the Department of Transport to implement a licensing framework for commercial fishing and aquaculture moorings.	[2]
2	Continue to support volunteer involvement in management activities in the FHPA and promote wider community awareness around the local community and social values.	4

Action No.	6. Governance	Relative Priority
1	Introduce a long-term sustainable funding, revenue and resource framework to support effective administration and management of the Abrolhos FHPA.	[1/4]
2	Develop and implement contemporary and transparent Abrolhos Reserve policies, guidelines and legislation in accordance with the priorities set out in this management plan.	[1/4]
3	Set up an appropriate and ongoing governance framework to work collaboratively with DBCA, the WA Museum and other relevant agencies to enhance understanding, management and protection of key values across tenures.	1/4
4	Work with partner agencies to improve cooperative operational management arrangements across all tenures including sharing of services and assets, collaborative operational planning, and cross-authorisation of staff.	[1/4]
7	Clarify the ethics and licensing requirements for non-government organisations taking or disturbing aquatic organisms for the purpose of undertaking biological assessment, scientific or other purposes in the Abrolhos FHPA.	1
5	Monitor implementation of this plan through: <ul style="list-style-type: none"> a. regular monitoring of progress of actions in accordance with priorities; and b. a formal mid-term review commencing in 2027 including undertaking a FHPA risk assessment. 	4
6	Identify opportunities to collaborate with partner agencies and research organisations to carry out targeted research programs to support future planning and management.	4

Appendix 2: Summary of Management Objectives for the FHPA

1. Nature Conservation and Protection

Manage the impacts of FHPA users and marine-based infrastructure on the natural values of the Abrolhos Islands FHPA

Work collaboratively to identify and manage the impacts of FHPA users on the natural values and broader environment of the Reserve and National Park

2. Cultural Heritage Protection

In collaboration with DBCA, the WA Museum and stakeholders, identify and manage the impacts of FHPA users on cultural heritage sites in the FHPA, Reserve and National Park

3. Marine Tourism and Recreation

Enhance and facilitate a diverse range of marine-based recreational opportunities for visitors that will complement the destination as a low-impact, ecologically sustainable, nature-based visitor experience

Work collaboratively with DBCA, WAM and other stakeholders to ensure future public and private marine tourism infrastructure is appropriate and located in key areas to support land-based tourism

Minimise risks to the safety of FHPA users and promote awareness of the preparation and knowledge required to visit the Abrolhos FHPA safely

In consultation with partner agencies and stakeholders, facilitate the establishment of licensed marine-based commercial tourism operations that provide extraordinary visitor experiences while minimising impacts on the key values of the FHPA, Reserve and National Park

4. Sustainable Fisheries and Aquaculture

Work with stakeholders to support the management of sustainable commercial wild-capture fisheries and take advantage of emerging market opportunities

Support commercial scale fish farming, and the development of aquaculture industries that create jobs, economic diversification and optimal utilisation of viable sites

Support the management of sustainable recreational and charter fishing activities consistent with management objectives and the protection of key values in the Abrolhos FHPA

5. Abrolhos Community

Promote the Abrolhos FHPA as a Western Australian community asset and facilitate a diverse range of activities within a sustainable framework

Implement a management and licensing framework designed to improve safety, standards and maintenance of commercial marine fishing and aquaculture infrastructure in the FHPA

6. Governance

Seek and obtain adequate funding and resources required to effectively achieve State Government's strategic direction for the Abrolhos FHPA

Ensure that FHPA legislation and policy is contemporary and fit for purpose, and that decision-making processes are consistent and transparent

Work with partner agencies to apply a cooperative inter-agency management approach that will facilitate seamless management across all tenures

Implement, monitor and review management actions, and carry out collaborative research that is aimed at informing future planning and management needs