

Shark Bay, Western Australia

1. World Heritage Property Data

1.1 - Name of World Heritage property

Shark Bay, Western Australia

1.2 - World Heritage property details

1.3 - Geographic information table

Name	Coordinates	Property (ha)	Buffer zone (ha)	Total (ha)	Inscription year
Shark Bay, Western Australia	-25.486 / 113.436	2200902	0	2200902	1991
Total (ha)		2200902	0	2200902	

1.4 - Map(s)

Title	Date	Link to source
Shark Bay, Western Australia - Map of the inscribed property	2012	

1.5 - Web and Social Media data of the property (if applicable)

- [The Official Site for Australian Travel and Tourism Australia](#)
- [Natural site datasheet from WCMC](#)
- [Shark Bay World Heritage Site \(Western Australia Department of Environment and Conservation\)](#)
- [3. Shark Bay World Heritage Site \(Western Australian Department of Biodiversity, Conservation and Attractions, Parks and Wildlife Service\) 4. Shark Bay \(Department of Agriculture, Water and Environment\) Add www.sharkbay.org \(Shark Bay World Heritage Advisory Committee\)](#)

2. Other Conventions/Programmes under which the World Heritage property is protected (if applicable)

2.1 - Records indicate that your World Heritage property (in whole or in part) is designated and/or protected under the Conventions/programmes shown in the prefilled table below. Please check and amend as necessary.

		The World Heritage property (in whole or in part) <u>is</u> designated and/or protected under this convention/programme	The World Heritage property (in whole or in part) <u>is not</u> designated and/or protected under this convention/programme
2.1.1	International Register of Cultural Property under Special Protection (1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict)		×
2.1.2	List of Cultural Property under Enhanced Protection (Second Protocol to the 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict)		×
2.1.3	The List of Wetlands of International Importance (The Ramsar List) (Convention on Wetlands of International Importance (Ramsar Convention))		×
2.1.4	World Network of Biosphere Reserves Man and the Biosphere (MAB) Programme		×
2.1.5	Global Geoparks Network UNESCO Global Geoparks		×

2.2 - Please provide comments on 2.1 if necessary

2.3 - Do your national authorities intend to request the granting of Enhanced Protection (if relevant) under the Second Protocol to the 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict for the World Heritage property in the next three years?

Not applicable

2.4 - Do your national authorities intend to designate whole or part of the World Heritage property for inclusion in the List of Wetlands of International Importance (The Ramsar List), if relevant, in the next three years?

Not applicable

2.5 - Do your national authorities intend to designate whole or part of the World Heritage property as a Man and Biosphere Reserve (if relevant) in the next three years?

Not applicable

2.6 - Do your national authorities intend to apply for whole or part of World Heritage property to be designated as a UNESCO Global Geopark (if relevant) in the next three years?

Not applicable

2.7 - Please indicate the level of cooperation at property level between designations under different Conventions/Programmes

2.7.1	1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict	
2.7.1	There is no contact with the Focal Point(s) of this designation/programme.	✕
2.7.2	The World Heritage Site Manager occasionally communicates with the Focal Point(s) of this designation/programme.	
2.7.3	The World Heritage Site Manager regularly communicates with the Focal Point(s) of this designation/programme.	
2.7.4	The World Heritage Site Manager also manages this designation/programme.	
2.7.2	Second Protocol to the 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict	
2.7.1	There is no contact with the Focal Point(s) of this designation/programme.	✕
2.7.2	The World Heritage Site Manager occasionally communicates with the Focal Point(s) of this designation/programme.	
2.7.3	The World Heritage Site Manager regularly communicates with the Focal Point(s) of this designation/programme.	
2.7.4	The World Heritage Site Manager also manages this designation/programme.	
2.7.3	Convention on Wetlands of International Importance (Ramsar Convention)	
2.7.1	There is no contact with the Focal Point(s) of this designation/programme.	✕
2.7.2	The World Heritage Site Manager occasionally communicates with the Focal Point(s) of this designation/programme.	
2.7.3	The World Heritage Site Manager regularly communicates with the Focal Point(s) of this designation/programme.	
2.7.4	The World Heritage Site Manager also manages this designation/programme.	
2.7.4	Man and the Biosphere (MAB) Programme	
2.7.1	There is no contact with the Focal Point(s) of this designation/programme.	✕
2.7.2	The World Heritage Site Manager occasionally communicates with the Focal Point(s) of this designation/programme.	
2.7.3	The World Heritage Site Manager regularly communicates with the Focal Point(s) of this designation/programme.	
2.7.4	The World Heritage Site Manager also manages this designation/programme.	
2.7.5	UNESCO Global Geoparks	
2.7.1	There is no contact with the Focal Point(s) of this designation/programme.	✕
2.7.2	The World Heritage Site Manager occasionally communicates with the Focal Point(s) of this designation/programme.	
2.7.3	The World Heritage Site Manager regularly communicates with the Focal Point(s) of this designation/programme.	
2.7.4	The World Heritage Site Manager also manages this designation/programme.	

2.8 - Please add any further comments on cooperation with the other designation(s)/programme(s)

2.9 - Are you aware of any elements associated with the World Heritage property that have been inscribed on the Representative List of the Intangible Cultural Heritage?

No

2.10 - Please list any elements associated with the World Heritage property inscribed under the Convention for the Safeguarding of the Intangible Cultural Heritage of which you are aware

2.11 - Are you aware of any documentary heritage listed under the Memory of the World Programme associated with the World Heritage property?

No

2.12 - Please list any documentary heritage associated with the World Heritage property listed under the Memory of the World Programme of which you are aware.

3. Statement of Outstanding Universal Value

3.1 - Statement of Outstanding Universal Value for the property as adopted by the World Heritage Committee

Statement of Outstanding Universal Value

Brief synthesis

On the Indian Ocean coast at the most westerly point of Australia, Shark Bay's waters, islands and peninsulas covering a large area of some 2.2 million hectares (of which about 70% are marine waters) have a number of exceptional natural features, including one of the largest and most diverse seagrass beds in the world. However it is for its stromatolites (colonies of microbial mats that form hard, dome-shaped deposits which are said to be the oldest life forms on earth), that the property is most renowned. The property is also famous for its rich marine life including a large population of dugongs, and provides a refuge for a number of other globally threatened species.

Criterion (vii): One of the superlative natural phenomena present in this property is its stromatolites, which represent the oldest form of life on Earth and are comparable to living fossils. Shark Bay is also one of the few marine areas in the world dominated by carbonates not associated with reef-building corals. This has led to the development of the Wooramel Seagrass Bank within Shark Bay, one of the largest seagrass meadows in the world with the most seagrass species recorded from one area. These values are supplemented by marine fauna such as dugong, dolphins, sharks, rays, turtles and fish, which occur in great numbers.

The hydrologic structure of Shark Bay, altered by the formation of the Faure Sill and a high evaporation, has produced a basin where marine waters are hypersaline (almost twice that of seawater) and contributed to extensive beaches consisting entirely of shells. The profusion of peninsulas, islands and bays create a diversity of landscapes and exceptional coastal scenery.

Criterion (viii): Shark Bay contains, in the hypersaline Hamelin Pool, the most diverse and abundant examples of stromatolites (hard, dome-shaped structures formed by microbial mats) in the world. Analogous structures dominated marine ecosystems on Earth for more than 3,000 million years.

The stromatolites of Hamelin Pool were the first modern, living examples to be recognised that have a morphological diversity and abundance comparable to those that inhabited Proterozoic seas. As such, they are one of the world's best examples of a living analogue for the study of the nature and evolution of the earth's biosphere up until the early Cambrian.

The Wooramel Seagrass Bank is also of great geological interest due to the extensive deposit of limestone sands associated with the bank, formed by the precipitation of calcium carbonate from hypersaline waters.

Criterion (ix): Shark Bay provides outstanding examples of processes of biological and geomorphic evolution taking place in a largely unmodified environment. These include the evolution of the Bay's hydrological system, the hypersaline environment of Hamelin Pool and the biological processes of ongoing speciation, succession and the creation of refugia.

One of the exceptional features of Shark Bay is the steep gradient in salinities, creating three biotic zones that have a marked effect on the distribution and abundance of marine organisms. Hypersaline conditions in Hamelin Pool have led to the development of a number of significant geological and biological features including the 'living fossil' stromatolites.

The unusual features of Shark Bay have also created the Wooramel Seagrass Bank. Covering 103,000 ha, it is the largest structure of its type in the world. Seagrasses are aquatic flowering plants that form meadows in near-shore brackish or marine waters in temperate and tropical regions, producing one of the world's most productive aquatic ecosystems. Australia has one of the highest diversity of seagrasses globally, with 12 species occurring in the Bay.

Criterion (x): Shark Bay is a refuge for many globally threatened species of plants and animals. The property is located at the transition zone between two of Western Australia's main botanical provinces, the arid Eremaean, dominated by *Acacia* species and the temperate South West, dominated by *Eucalyptus* species, and thus contains a mixture of two biotas, many at the limit of their southern or northern range. The property contains either the only or major populations of five globally threatened mammals, including the Burrowing Bettong (now classified as Near Threatened), Rufous Hare Wallaby, Banded Hare Wallaby, the Shark Bay Mouse and the Western Barred Bandicoot. A number of globally threatened plant and reptile species also occur in the terrestrial part of the property.

Shark Bay's sheltered coves and lush seagrass beds are a haven for marine species, including Green Turtle and Loggerhead Turtle (both Endangered, and the property provides one of Australia's most important nesting areas for this second species). Shark Bay is one of the world's most significant and secure strongholds for the protection of Dugong, with a population of around 11,000. Increasing numbers of Humpback Whales and Southern Right Whales use Shark Bay as a migratory staging post, and a famous population of Bottlenose Dolphin lives in the Bay. Large numbers of sharks and rays are readily observed, including the Manta Ray which is now considered globally threatened.

Integrity

At time of inscription in 1991 it was noted that human impacts, while not as pronounced as in other World Heritage properties due to the property's relative remoteness, have had some effects including impacts from pastoralism and feral animals. The small, local centre of Denham, along with industrial activities such as salt and gypsum mining in the region, could comprise threats if not properly managed. Tourism and recreational boating also needs to be carefully managed. The marine environment has undergone some modification through historically intensive pearl shell, fishing, trawling and whaling activities. However, the ecosystems in Shark Bay appear relatively unaltered by human impact, although this could change if terrestrial mining of mineral sands were to take place. Other potential threats could be from improved technology in producing drinking water which would lead to increased tourism and residential density, the upgrading of road access, agricultural developments to the east (dependent on water supply), expansion of gypsum mining, and the introduction of intensive aquacultural or fishing technologies. Climate change could also impact on the complex marine ecosystem. While the property meets the required conditions of integrity and contains the components required to demonstrate all aspects of the natural processes, it is important that the property's management arrangements provide the framework in which these integrity issues can be monitored and addressed.

Protection and management requirements

The Shark Bay World Heritage property encompasses a number of different land tenures and thus a variety of statutory and management arrangements protect its values. At the time of nomination of the property, existing conservation reserves totalled approximately 200,000 hectares and mainly consisted of small island nature reserves, Bernier and Dorre Islands and the Hamelin Pool Nature Reserve. Specific suggestions to increase the conservation tenure boundaries included expanding the northern boundary of the Hamelin Pool Class A Marine Nature Reserve; extending the southern boundary of the terrestrial park on the northern end of the Peron Peninsula; the inclusion of the Gladstone Embayment in the Hamelin Pool Marine Nature Reserve; the extension of the northern boundary line of the Marine Park in the Denham Sound area; securing reserve status for Dirk Hartog Island and the incorporation of the southern part of Nanga pastoral station into the reserve system.

Since inscription, Francois Peron National Park (52,586 hectares), Shell Beach Conservation Park (517 hectares), Monkey Mia Reserve (446 hectares), Monkey Mia Conservation Park (5 hectares), Zuytdorp Nature Reserve (additional 58,850 hectares), Nanga pastoral lease (176,407 hectares), part Tamala pastoral lease (56,343 hectares), South Peron (53,408 hectares), part Carrarang pastoral lease (18,772 hectares), Bernier, Dorre and Koks Islands Nature Reserves (9,722 hectares) and Dirk Hartog Island National Park (61,243 hectares) have been added to the conservation estate. With the designation of the Shark Bay Marine Park (748,725 hectares) in 1990, incorporating the Hamelin Pool Marine Nature Reserve, the total formal conservation area of the World Heritage property is approximately 1.24 million hectares. In addition, the coastal portion of the Yaringa pastoral lease (19,396 hectares), part of Nerren Nerren pastoral lease (104,351 hectares) and part of Murchison House pastoral lease (37,578 hectares) have been added as a buffer. The Yaringa portion adjoins the Hamelin Pool Nature Reserve and in addition to having very high conservation value, is of strategic significance in bordering the World Heritage property.

A management agreement between the Australian Government and the State of Western Australia provides for management of the property to be carried out by the Western Australian Government in accordance with Australia's obligations under the World Heritage Convention. In addition, a comprehensive programme of management and administrative structures and planning processes has been implemented. Under the terms of the Agreement, a ministerial council and two advisory

committees (scientific advisory and community consultative) were formed. The Shark Bay World Heritage Advisory Committee replaced the two previous Scientific Advisory and Community Consultative committees with a new committee consisting of community, scientific and Indigenous representatives. Owing to the diversity of land tenures and managing agencies and individual interests within the property, the *Shark Bay World Heritage Property Strategic Plan 2008-2020* was prepared to develop a partnership between governments and the community.

From July 2000, any proposed activity which may have a significant impact on the property became subject to the provisions of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), which regulates actions that will, or are likely to, have a significant impact on World Heritage values. In 2007, Shark Bay was added to the National Heritage List, in recognition of its national heritage significance under the Act.

Management issues raised at the time of inscription included the control of human use through both zoning and designation of conservation areas, restrictions on public access to certain areas, the management of the trawl fishery to protect values, the purchase of land for conservation use, and increased staffing. Since then, climate change has emerged as an additional potential threat to the World Heritage values. Fire also represents a threat to species that are highly restricted in their distribution, particularly populations which only survive on islands which could be severely affected by a single large fire. Australia has introduced a range of measures at both the national, and property-specific, level to address these potential threats.

Comment

Minor and typographic errors are; Criterion vii second line - space required between 'is also'. Criterion x - Note the Western Barred Bandicoot has been renamed the Shark Bay Bandicoot. Integrity - Note that gypsum mining leases have been extinguished. Protection and Management Requirements - Note Dirk Hartog Island became National Park in 2009. The Ministerial Council formed as part of the original management agreement ceased to operate in 2007.

3.2 - Please list the key attributes of Outstanding Universal Value of your property and give an assessment of their condition. As a guideline, it is suggested to focus on approximately five key attributes (no more than 15 overall).

	Brief identification of attribute	Preserved	Compromised	Seriously compromised	Lost
3.2.1	Most diverse and abundant examples of Stromatolites	✕			
3.2.2	Hypersaline Hamelin Pool Marine Nature Reserve	✕			
3.2.3	Extensive seagrass meadows, including Wooramel Seagrass Bank		✕		
3.2.4	Biological processes, hydrological systems, salinity gradients	✕			
3.2.5	Many globally threatened species of plants and animals	✕			
3.2.6					
3.2.7					
3.2.8					
3.2.9					
3.2.10					
3.2.11					
3.2.12					
3.2.13					
3.2.14					
3.2.15					

3.3 - Comments, conclusions and/or recommendations related to Statement of Outstanding Universal Value

4. Factors Affecting the Property

4.1. Buildings and Development

4.1.1 - Housing

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant

✕ Not relevant

4.1.2 - Commercial development

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant

✕ Not relevant

4.1.3 - Industrial areas

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant

✕ Not relevant

4.1.4 - Major visitor accommodation and associated infrastructure

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.1.5 - Interpretative and visitation facilities

Previous answer Cycle 2 (29/07/2011):

- Relevant, Positive, Current, Inside

✕ Relevant	Not relevant
------------	--------------

	Impact		Origin		Trend of impact		
Impact	 Current	 Potential	 Inside	 Outside	 Decreasing	 Stable	 Increasing
 Positive ✕	✕	✕	✕				
 Negative ✕	✕	✕	✕				

4.1.6 - Please comment as necessary on how the factors selected as relevant in 4.1 are affecting the property either negatively or positively

Expanded/upgraded tourism development at Monkey Mia (bottlenose dolphin interactions), has resulted in increased visitation and activities at that site. Other coastal tourism development has occurred on Dirk Hartog Island freehold land adjacent to homestead. Potential development being planned on freehold land at Sunday Island Bay - southern end of island. Ecotourism facility proposal, Turtle Bay leased land - northern end. All coastal developments in close proximity to Marine Park boundary.

4.2. Transportation Infrastructure

4.2.1 - Ground transport infrastructure

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.2.2 - Underground transport infrastructure

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.2.3 - Air transport infrastructure

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.2.4 - Marine transport infrastructure

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.2.5 - Effects arising from use of transportation infrastructure

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.2.6 - Please comment as necessary on how the factors selected as relevant in 4.2 are affecting the property either negatively or positively

Expanding tourism facilities, mainly along the coastal strips on pastoral leases, on Dirk Hartog Island freehold land and also tourism leasehold, as well as at the Monkey Mia Dolphin Resort, have the potential to adversely impact World Heritage listed values and the tourism leasehold if not not designed and managed appropriately.

4.3. Services Infrastructures

4.3.1 - Water infrastructure

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.3.2 - Renewable energy facilities

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.3.3 - Non-renewable energy facilities

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.3.4 - Localised utilities

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.3.5 - Major linear utilities

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.3.6 - Please comment as necessary on how the factors selected as relevant in 4.3 are affecting the property either negatively or positively

4.4. Pollution

4.4.1 - Pollution of marine waters

Previous answer Cycle 2 (29/07/2011):

- Relevant, Negative, Potential, Inside

✕ Relevant	Not relevant						
	Impact		Origin		Trend of impact		
Impact	Current	Potential	Inside	Outside	Decreasing	Stable	Increasing
Positive							
Negative ✕	✕	✕	✕				

4.4.2 - Ground water pollution

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.4.3 - Surface water pollution

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.4.4 - Air pollution

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.4.5 - Solid waste

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.4.6 - Input of excess energy

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.4.7 - Please comment as necessary on how the factors selected as relevant in 4.4 are affecting the property either negatively or positively

4.4.1 Plastics and other marine debris accumulates on beaches and shorelines, particularly at Steep Point and on Dirk Hartog Island. Vessels transporting salt from the commercial solar salt operation at Useless Loop discharge bilge water. This activity is self-managed (Shark Bay Salt) under Australian Quarantine Inspection Service regulations. Dredging of the Denham Channel (in consultation with relevant agencies) is also undertaken by this company when required.

4.5. Biological resource use/modification

4.5.1 - Fishing/collecting aquatic resources

Previous answer Cycle 2 (29/07/2011):

- Relevant, Negative, Potential, Inside

✕ Relevant				Not relevant			
	Impact		Origin		Trend of impact		
Impact	🔴 Current	🟡 Potential	🟢 Inside	🟢 Outside	📉 Decreasing	➡ Stable	📈 Increasing
🟢 Positive							
🔴 Negative ✕	✕	✕	✕	✕			📈

4.5.2 - Aquaculture

Previous answer Cycle 2 (29/07/2011):

- Relevant, Negative, Potential, Inside

Relevant	✕ Not relevant
----------	----------------

4.5.3 - Land conversion

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.5.4 - Livestock farming/Grazing of domesticated animals

Previous answer Cycle 2 (29/07/2011):

- Relevant, Negative, Potential, Inside, Outside

✕ Relevant				Not relevant			
	Impact		Origin		Trend of impact		
Impact	🔴 Current	🟡 Potential	🟢 Inside	🟢 Outside	📉 Decreasing	➡ Stable	📈 Increasing
🟢 Positive							
🔴 Negative ✕	✕	✕	✕		📉		

4.5.5 - Crop production

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.5.6 - Commercial wild plant collection

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.5.7 - Subsistence wild plant collection

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.5.8 - Commercial hunting

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.5.9 - Subsistence hunting

Previous answer Cycle 2 (29/07/2011):

- Not relevant

✕ Relevant			Not relevant				
	Impact		Origin		Trend of impact		
Impact	 Current	 Potential	 Inside	 Outside	 Decreasing	 Stable	 Increasing
 Positive							
 Negative ✕	✕		✕				

4.5.10 - Forestry/Wood production

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.5.11 - Please comment as necessary on how the factors selected as relevant in 4.5 are affecting the property either negatively or positively

4.5.1 Commercial net/recreational fishing charters occur in WHA and Marine Park. Commercial operators north of WH property, trawl for scallops and prawns in Marine Park. These Fisheries regulated operations, include seasonal closures and quotas. Recreational fishing pressures increased in past 12 months, mostly due to Covid-19 interstate border closures and restrictions. 4.5.4 Livestock farming/grazing occurs on several pastoral leases within Property 4.5.9 Some Indigenous hunting of dugong.

4.6. Physical resource extraction

4.6.1 - Mining

Previous answer Cycle 2 (29/07/2011):

- Relevant, Negative, Potential, Outside

✕ Relevant			Not relevant				
	Impact		Origin		Trend of impact		
Impact	 Current	 Potential	 Inside	 Outside	 Decreasing	 Stable	 Increasing
 Positive							
 Negative ✕		✕		✕			

4.6.2 - Quarrying

Previous answer Cycle 2 (29/07/2011):

- Relevant, Negative, Potential, Inside

Relevant	✕ Not relevant
----------	----------------

4.6.3 - Oil and gas

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.6.4 - Water (extraction)

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.6.5 - Please comment as necessary on how the factors selected as relevant in 4.6 are affecting the property either negatively or positively

4.6.1 A mineral sands extraction process is due to commence operations mid-2021 on Coburn pastoral lease adjacent to the eastern World Heritage boundary and in proximity to the Hamelin Pool Marine Nature Reserve. The potential for dust, etc. to pollute the marine nature reserve has been raised with the company.

4.7. Local conditions affecting physical fabric

4.7.1 - Wind

Previous answer Cycle 2 (29/07/2011):

- Relevant, Negative, Potential, Inside

Relevant	✕ Not relevant
----------	----------------

4.7.2 - Relative humidity

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.7.3 - Temperature

Previous answer Cycle 2 (29/07/2011):

- Not relevant

✕ Relevant	Not relevant
------------	--------------

	Impact		Origin		Trend of impact		
Impact	🔥 Current	🔥 Potential	📍 Inside	📍 Outside	↘ Decreasing	→ Stable	↗ Increasing
🟢 Positive							
🔴 Negative ✕		✕	✕				↗

4.7.4 - Radiation/Light

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.7.5 - Dust

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.7.6 - Water (rain/water table)

Previous answer Cycle 2 (29/07/2011):

- Relevant, Negative, Potential, Inside

✕ Relevant	Not relevant
------------	--------------

	Impact		Origin		Trend of impact		
Impact	🔥 Current	🔥 Potential	📍 Inside	📍 Outside	↘ Decreasing	→ Stable	↗ Increasing
🟢 Positive							
🔴 Negative ✕		✕	✕				↗

4.7.7 - Pests

Previous answer Cycle 2 (29/07/2011):

- Relevant, Negative, Current, Inside, Outside

✕ Relevant	Not relevant
------------	--------------

	Impact		Origin		Trend of impact		
Impact	🔥 Current	🔥 Potential	📍 Inside	📍 Outside	↘ Decreasing	→ Stable	↗ Increasing
🟢 Positive							
🔴 Negative ✕	✕	✕	✕	✕		→	

4.7.8 - Micro-organisms

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.7.9 - Please comment as necessary on how the factors selected as relevant in 4.7 are affecting the property either negatively or positively

4.7.3, 4.7.6 - Increasing temperatures (terrestrial and marine) associated with climate change effects will potentially impact on WH values as evidenced by marine heatwave in 2010/11 summer which caused 25% die-off of seagrass meadows. Increased rainfall and run-off into Wooramel River also contributed to seagrass loss.
4.7.7 - Feral animals (cats, foxes, sheep and goats) are introduced and now subject to on-going eradication programs. Potential for introduction of marine pests also.

4.8. Social/Cultural uses of heritage

4.8.1 - Ritual/Spiritual/Religious and associative uses

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	☒ Not relevant
----------	--

4.8.2 - Society's valuing of heritage

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	☒ Not relevant
----------	--

4.8.3 - Indigenous hunting, gathering and collecting

Previous answer Cycle 2 (29/07/2011):

- Relevant, Negative, Potential, Inside

☒ Relevant	Not relevant
--	--------------

	Impact		Origin		Trend of impact		
Impact	 Current	 Potential	 Inside	 Outside	 Decreasing	 Stable	 Increasing
 Positive							
 Negative ☒	☒		☒				

4.8.4 - Changes in traditional ways of life and knowledge system

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	☒ Not relevant
----------	--

4.8.5 - Identity, social cohesion, changes in local population and community

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	☒ Not relevant
----------	--

4.8.6 - Impacts of tourism/Visitation/Recreation

Previous answer Cycle 2 (29/07/2011):

- Relevant, Negative, Potential, Inside

☒ Relevant	Not relevant
--	--------------

	Impact		Origin		Trend of impact		
Impact	 Current	 Potential	 Inside	 Outside	 Decreasing	 Stable	 Increasing
 Positive							
 Negative ☒	☒	☒	☒				

4.8.7 - Please comment as necessary on how the factors selected as relevant in 4.8 are affecting the property either negatively or positively

With the advent of Covid-19 pandemic, visitation has significantly increased, largely due to State border closures and restrictions preventing overseas travel. The positive impact of increased tourists has maintained the economics of the local area, whilst negative impacts have contributed to increased tracks, vegetation damage, over-fishing, etc. Some limited hunting by indigenous residents and visitors.

4.9. Other human activities

4.9.1 - Illegal activities

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	☒ Not relevant
----------	--

4.9.2 - Deliberate destruction of heritage

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	☒ Not relevant
----------	--

4.9.3 - Military training

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.9.4 - War

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.9.5 - Terrorism

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.9.6 - Civil unrest

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.9.7 - Please comment as necessary on how the factors selected as relevant in 4.9 are affecting the property either negatively or positively

4.10. Climate change and severe weather events

4.10.1 - Storms

Previous answer Cycle 2 (29/07/2011):

- Relevant, Negative, Potential, Inside

✕ Relevant	Not relevant						
	Impact		Origin		Trend of impact		
Impact	🔥 Current	⚡ Potential	📍 Inside	🌐 Outside	↘ Decreasing	→ Stable	↗ Increasing
➕ Positive							
➖ Negative ✕	✕	✕	✕				↗

4.10.2 - Flooding

Previous answer Cycle 2 (29/07/2011):

- Not relevant

✕ Relevant	Not relevant						
	Impact		Origin		Trend of impact		
Impact	🔥 Current	⚡ Potential	📍 Inside	🌐 Outside	↘ Decreasing	→ Stable	↗ Increasing
➕ Positive							
➖ Negative ✕	✕	✕	✕	✕			↗

4.10.3 - Drought

Previous answer Cycle 2 (29/07/2011):

- Relevant, Negative, Potential, Inside

✕ Relevant	Not relevant						
	Impact		Origin		Trend of impact		
Impact	🔥 Current	⚡ Potential	📍 Inside	🌐 Outside	↘ Decreasing	→ Stable	↗ Increasing
➕ Positive							
➖ Negative ✕		✕	✕			→	

4.10.4 - Desertification

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.10.5 - Changes to oceanic waters

Previous answer Cycle 2 (29/07/2011):

- Relevant, Negative, Potential, Inside

✕ Relevant	Not relevant						
	Impact		Origin		Trend of impact		
Impact	🔴 Current	🟡 Potential	🟢 Inside	🟢 Outside	📉 Decreasing	➡ Stable	📈 Increasing
🟢 Positive							
🔴 Negative ✕		✕	✕	✕			📈

4.10.6 - Temperature change

Previous answer Cycle 2 (29/07/2011):

- Relevant, Negative, Potential, Inside

✕ Relevant	Not relevant						
	Impact		Origin		Trend of impact		
Impact	🔴 Current	🟡 Potential	🟢 Inside	🟢 Outside	📉 Decreasing	➡ Stable	📈 Increasing
🟢 Positive							
🔴 Negative ✕	✕	✕	✕	✕			📈

4.10.7 - Other climate change impacts

Previous answer Cycle 2 (29/07/2011):

- Relevant, Negative, Potential, Inside

✕ Relevant	Not relevant						
	Impact		Origin		Trend of impact		
Impact	🔴 Current	🟡 Potential	🟢 Inside	🟢 Outside	📉 Decreasing	➡ Stable	📈 Increasing
🟢 Positive							
🔴 Negative ✕	✕	✕	✕	✕			📈

4.10.8 - Please comment as necessary on how the factors selected as relevant in 4.10 are affecting the property either negatively or positively

Sea surface temperature of Shark Bay coast warming faster than global average. Seagrass sensitive to increased water temperature and turbidity changes. Two years after 2011 marine heatwave event, biomass shows limited recovery, belowground mass decreased, impacted abundance/distribution of crabs/prawns/scallops. Die-off affected turtles/sea snakes and released 2-9million tonnes carbon dioxide. Dilution of hypersaline gradients, sea level rise, will impact stromatolites, species diversity, etc.

4.11. Sudden ecological or geological events

4.11.1 - Volcanic eruption

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.11.2 - Earthquake

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.11.3 - Tsunami/Tidal wave

Previous answer Cycle 2 (29/07/2011):

- Relevant, Negative, Potential, Inside, Outside

Relevant	✕ Not relevant
----------	----------------

4.11.4 - Avalanche/Landslide

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.11.5 - Erosion and siltation/Deposition

Previous answer Cycle 2 (29/07/2011):

- Relevant, Negative, Current, Inside

Relevant	✕ Not relevant
----------	----------------

4.11.6 - Fire (wildfire)

Previous answer Cycle 2 (29/07/2011):

- Relevant, Negative, Potential, Inside

✕ Relevant	Not relevant
------------	--------------

	Impact		Origin		Trend of impact		
Impact	 Current	 Potential	 Inside	 Outside	 Decreasing	 Stable	 Increasing
 Positive							
 Negative ✕		✕	✕			→	

4.11.7 - Please comment as necessary on how the factors selected as relevant in 4.11 are affecting the property either negatively or positively

4.11.6 Fire risks are forecast to increase and represent a significant threat to species that are highly restricted in their distribution, particularly populations which only survive on islands where they could be severely affected or totally destroyed by a single large fire, especially from lightening strikes.

4.12. Invasive/alien species or hyper-abundant species

4.12.1 - Translocated species

Previous answer Cycle 2 (29/07/2011):

- Relevant, Negative, Potential, Outside

Relevant	✕ Not relevant
----------	----------------

4.12.2 - Invasive/Alien terrestrial species

Previous answer Cycle 2 (29/07/2011):

- Relevant, Negative, Current, Inside, Outside

✕ Relevant	Not relevant
------------	--------------

	Impact		Origin		Trend of impact		
Impact	 Current	 Potential	 Inside	 Outside	 Decreasing	 Stable	 Increasing
 Positive							
 Negative ✕	✕	✕	✕	✕		→	

4.12.3 - Invasive/Alien freshwater species

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.12.4 - Invasive/Alien marine species

Previous answer Cycle 2 (29/07/2011):

- Relevant, Negative, Potential, Inside, Outside

✕ Relevant	Not relevant
------------	--------------

	Impact		Origin		Trend of impact		
Impact	 Current	 Potential	 Inside	 Outside	 Decreasing	 Stable	 Increasing
 Positive							
 Negative ✕	✕	✕	✕	✕		→	

4.12.5 - Hyper-abundant species

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.12.6 - Modified genetic material

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant	✕ Not relevant
----------	----------------

4.12.7 - Please comment as necessary on how the factors selected as relevant in 4.12 are affecting the property either negatively or positively

Feral/introduced terrestrial species include; rabbits, cats, foxes, sheep and goats. DBCA has established a conservation program to bring threatened native fauna species back from brink of extinction by controlling introduced pests and translocating native animals. However, an eradication strategy for all introduced animals and other pests threatening the WH property is required. Potential introductions of new species will remain a risk and requires constant monitoring and active management.

4.13. Management and institutional factors

4.13.1 - Management system/Management plan

✕ Relevant	Not relevant
------------	--------------

	Impact		Origin		Trend of impact		
Impact	🔴 Current	🟡 Potential	🟢 Inside	🟢 Outside	📉 Decreasing	➡ Stable	📈 Increasing
🟢 Positive ✕	✕		✕			➡	
🔴 Negative ✕	✕		✕	✕		➡	

4.13.2 - Legal framework

✕ Relevant	Not relevant
------------	--------------

	Impact		Origin		Trend of impact		
Impact	🔴 Current	🟡 Potential	🟢 Inside	🟢 Outside	📉 Decreasing	➡ Stable	📈 Increasing
🟢 Positive ✕	✕		✕			➡	
🔴 Negative							

4.13.3 - Governance

✕ Relevant	Not relevant
------------	--------------

	Impact		Origin		Trend of impact		
Impact	🔴 Current	🟡 Potential	🟢 Inside	🟢 Outside	📉 Decreasing	➡ Stable	📈 Increasing
🟢 Positive ✕	✕		✕	✕		➡	
🔴 Negative							

4.13.4 - Management activities

Previous answer Cycle 2 (29/07/2011):

- Relevant, Positive, Current, Inside

✕ Relevant	Not relevant
------------	--------------

	Impact		Origin		Trend of impact		
Impact	🔴 Current	🟡 Potential	🟢 Inside	🟢 Outside	📉 Decreasing	➡ Stable	📈 Increasing
🟢 Positive ✕	✕		✕	✕			📈
🔴 Negative							

4.13.5 - Financial resources

✕ Relevant	Not relevant
------------	--------------

	Impact		Origin		Trend of impact		
Impact	🔴 Current	🟡 Potential	🟢 Inside	🟢 Outside	📉 Decreasing	➡ Stable	📈 Increasing
🟢 Positive ✕	✕			✕			📈
🔴 Negative ✕	✕		✕		📉		

4.13.6 - Human resources

✕ Relevant			Not relevant				
	Impact		Origin		Trend of impact		
Impact	 Current	 Potential	 Inside	 Outside	 Decreasing	 Stable	 Increasing
 Positive ✕		✕	✕	✕			
 Negative ✕	✕		✕				

4.13.7 - Low impact research/monitoring activities

Previous answer Cycle 2 (29/07/2011):

- Not relevant

✕ Relevant			Not relevant				
	Impact		Origin		Trend of impact		
Impact	 Current	 Potential	 Inside	 Outside	 Decreasing	 Stable	 Increasing
 Positive ✕	✕		✕				
 Negative							

4.13.8 - High impact research/monitoring activities

Previous answer Cycle 2 (29/07/2011):

- Not relevant

Relevant			✕ Not relevant				
----------	--	--	----------------	--	--	--	--

4.13.9 - Please comment as necessary on how the factors selected as relevant in 4.13 are affecting the property either negatively or positively

DBCA Parks and Wildlife is lead WA Government agency for management of Property. Advisory Committee provides advice to State/Federal Governments re management, research priorities and scientific basis of principles/practices. Several management plans are in place for terrestrial reserves, marine park and the WH strategic plan, which provides direction for the management of resources and values across the Property. Committee governance established under Australian WH Intergovernmental Agreement.

4.14. Other factor(s)

4.14.1 - Other factor(s)

Shark Bay has attracted both international and domestic teams of scientists for many years. Overall, management effectiveness is high and regional and local planning recognises WHA status and management. Integration at the Australian Government level is via the Environment Protection and Biodiversity Conservation Act 1999 and the Australian World Heritage Advisory Committee. A variety of statutory and management arrangements protect the Property's values.

4.15. Factors Summary Table

4.15.1 - Factors Summary Table

Name	Impact			Origin	Trend	
4.1 Buildings and Development						
4.1.5 Interpretative and visitation facilities						
						
4.4 Pollution						
4.4.1 Pollution of marine waters						
						
4.5 Biological resource use/modification						
4.5.1 Fishing/collecting aquatic resources						
						
4.5.4 Livestock farming/Grazing of domesticated animals						
						
4.5.9 Subsistence hunting						
						
4.6 Physical resource extraction						
4.6.1 Mining						

4.7 Local conditions affecting physical fabric						
4.7.3 Temperature						
4.7.6 Water (rain/water table)						
4.7.7 Pests						
4.8 Social/Cultural uses of heritage						
4.8.3 Indigenous hunting, gathering and collecting						
4.8.6 Impacts of tourism/Visitation/Recreation						
4.10 Climate change and severe weather events						
4.10.1 Storms						
4.10.2 Flooding						
4.10.3 Drought						
4.10.5 Changes to oceanic waters						
4.10.6 Temperature change						
4.10.7 Other climate change impacts						
4.11 Sudden ecological or geological events						
4.11.6 Fire (wildfire)						
4.12 Invasive/alien species or hyper-abundant species						
4.12.2 Invasive/Alien terrestrial species						
4.12.4 Invasive/Alien marine species						
4.13 Management and institutional factors						
4.13.1 Management system/Management plan						
4.13.2 Legal framework						
4.13.3 Governance						
4.13.4 Management activities						

4.13.5 Financial resources						
4.13.6 Human resources						
4.13.7 Low impact research/monitoring activities						
Legend Current Potential Negative Positive Inside Outside						

4.16. Assessment of current and potential positive and negative factors

4.16.1 - Assessment of current and potential negative and positive factors

4.1 Buildings and Development

Name	Impact			Origin	Trend
4.1.5 Interpretative and visitation facilities					

Spatial scale - Area affected by the factor	
	Restricted
☒	Localised
	Extensive
	Widespread
Temporal scale - Occurrence of the impact	
	One off or rare
	Intermittent or sporadic
☒	Frequent
	On-going
Impact - Impact on the attributes	
	Insignificant
☒	Minor
	Significant
	Major
Management response - Capacity of management to respond	
	High capacity
☒	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Development over the last 6 years	
	Decreasing
☒	Static
	Increasing

4.4 Pollution

Name	Impact	Origin	Trend
------	--------	--------	-------

Spatial scale - Area affected by the factor	
	Restricted
✖	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
✖	Intermittent or sporadic
	Frequent
	On-going
Impact - Impact on the attributes	
	Insignificant
	Minor
✖	Significant
	Major
Management response - Capacity of management to respond	
	High capacity
	Medium capacity
✖	Low capacity
	No capacity and / or resources
Trend - Development over the last 6 years	
	Decreasing
✖	Static
	Increasing

4.5 Biological resource use/modification

Name		Impact			Origin		Trend
4.5.1 Fishing/collecting aquatic resources							
							
Spatial scale - Area affected by the factor							
	Restricted						
	Localised						
✕	Extensive						
	Widespread						
Temporal scale - Occurrence of the impact							
	One off or rare						
	Intermittent or sporadic						
✕	Frequent						
	On-going						

Impact - Impact on the attributes	
	Insignificant
	Minor
✕	Significant
	Major
Management response - Capacity of management to respond	
	High capacity
	Medium capacity
✕	Low capacity
	No capacity and / or resources
Trend - Development over the last 6 years	
	Decreasing
	Static
✕	Increasing

Name	Impact			Origin		Trend
4.5.4 Livestock farming/Grazing of domesticated animals						
						

Spatial scale - Area affected by the factor	
✕	Restricted
	Localised
	Extensive
	Widespread

Temporal scale - Occurrence of the impact	
	One off or rare
✕	Intermittent or sporadic
	Frequent
	On-going

Impact - Impact on the attributes	
	Insignificant
✕	Minor
	Significant
	Major

Management response - Capacity of management to respond	
	High capacity
	Medium capacity
	Low capacity
✕	No capacity and / or resources

Trend - Development over the last 6 years	
✕	Decreasing
	Static
	Increasing

Name	Impact	Origin	Trend
4.5.9 Subsistence hunting			
			

Spatial scale - Area affected by the factor

☒	Restricted
☐	Localised
☐	Extensive
☐	Widespread

Temporal scale - Occurrence of the impact

☐	One off or rare
☒	Intermittent or sporadic
☐	Frequent
☐	On-going

Impact - Impact on the attributes

☒	Insignificant
☐	Minor
☐	Significant
☐	Major

Management response - Capacity of management to respond

☐	High capacity
☐	Medium capacity
☒	Low capacity
☐	No capacity and / or resources

Trend - Development over the last 6 years

☐	Decreasing
☒	Static
☐	Increasing

4.6 Physical resource extraction

Name	Impact	Origin	Trend
4.6.1 Mining			
			

Spatial scale - Area affected by the factor

☒	Restricted
☐	Localised
☐	Extensive
☐	Widespread

Temporal scale - Occurrence of the impact

☐	One off or rare
☐	Intermittent or sporadic

✕	Frequent
	On-going
Impact - Impact on the attributes	
	Insignificant
✕	Minor
	Significant
	Major
Management response - Capacity of management to respond	
	High capacity
	Medium capacity
✕	Low capacity
	No capacity and / or resources
Trend - Development over the last 6 years	
	Decreasing
	Static
✕	Increasing

4.7 Local conditions affecting physical fabric

Name	Impact			Origin		Trend
4.7.3 Temperature						

Spatial scale - Area affected by the factor	
	Restricted
	Localised
✕	Extensive
	Widespread
Temporal scale - Occurrence of the impact	
	One off or rare
	Intermittent or sporadic
✕	Frequent
	On-going
Impact - Impact on the attributes	
	Insignificant
	Minor
✕	Significant
	Major
Management response - Capacity of management to respond	
	High capacity
	Medium capacity
	Low capacity
✕	No capacity and / or resources
Trend - Development over the last 6 years	

	Decreasing
	Static
✕	Increasing

Name	Impact	Origin	Trend
4.7.6 Water (rain/water table)			
			

Spatial scale - Area affected by the factor	
✕	Restricted
	Localised
	Extensive
	Widespread

Temporal scale - Occurrence of the impact	
	One off or rare
✕	Intermittent or sporadic
	Frequent
	On-going

Impact - Impact on the attributes	
	Insignificant
✕	Minor
	Significant
	Major

Management response - Capacity of management to respond	
	High capacity
	Medium capacity
	Low capacity
✕	No capacity and / or resources

Trend - Development over the last 6 years	
	Decreasing
✕	Static
	Increasing

Name	Impact	Origin	Trend
4.7.7 Pests			
			

Spatial scale - Area affected by the factor	
	Restricted
	Localised
✕	Extensive
	Widespread

Temporal scale - Occurrence of the impact	
	One off or rare

	Intermittent or sporadic
	Frequent
✕	On-going
Impact - Impact on the attributes	
	Insignificant
	Minor
✕	Significant
	Major
Management response - Capacity of management to respond	
	High capacity
✕	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Development over the last 6 years	
✕	Decreasing
	Static
	Increasing

4.8 Social/Cultural uses of heritage

Name	Impact			Origin		Trend
4.8.3 Indigenous hunting, gathering and collecting						
						

Spatial scale - Area affected by the factor	
✕	Restricted
	Localised
	Extensive
	Widespread
Temporal scale - Occurrence of the impact	
	One off or rare
✕	Intermittent or sporadic
	Frequent
	On-going
Impact - Impact on the attributes	
✕	Insignificant
	Minor
	Significant
	Major
Management response - Capacity of management to respond	
	High capacity
	Medium capacity
✕	Low capacity
	No capacity and / or resources

Trend - Development over the last 6 years	
	Decreasing
✕	Static
	Increasing

Name	Impact			Origin		Trend
4.8.6 Impacts of tourism/Visitation/Recreation						
						

Spatial scale - Area affected by the factor	
	Restricted
✕	Localised
	Extensive
	Widespread

Temporal scale - Occurrence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✕	On-going

Impact - Impact on the attributes	
	Insignificant
	Minor
✕	Significant
	Major

Management response - Capacity of management to respond	
	High capacity
✕	Medium capacity
	Low capacity
	No capacity and / or resources

Trend - Development over the last 6 years	
	Decreasing
	Static
✕	Increasing

4.10 Climate change and severe weather events

Name	Impact			Origin		Trend
4.10.1 Storms						
						

Spatial scale - Area affected by the factor	
	Restricted
✕	Localised
	Extensive
	Widespread

Temporal scale - Occurence of the impact	
	One off or rare
✕	Intermittent or sporadic
	Frequent
	On-going
Impact - Impact on the attributes	
	Insignificant
✕	Minor
	Significant
	Major
Management response - Capacity of management to respond	
	High capacity
	Medium capacity
	Low capacity
✕	No capacity and / or resources
Trend - Development over the last 6 years	
	Decreasing
✕	Static
	Increasing

Name	Impact			Origin		Trend
4.10.2 Flooding						
						

Spatial scale - Area affected by the factor	
✕	Restricted
	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
✕	Intermittent or sporadic
	Frequent
	On-going
Impact - Impact on the attributes	
	Insignificant
	Minor
✕	Significant
	Major
Management response - Capacity of management to respond	
	High capacity
	Medium capacity
✕	Low capacity

	No capacity and / or resources
Trend - Development over the last 6 years	
	Decreasing
✕	Static
	Increasing

Name	Impact	Origin	Trend
4.10.3 Drought			
			

Spatial scale - Area affected by the factor	
✕	Restricted
	Localised
	Extensive
	Widespread

Temporal scale - Occurrence of the impact	
	One off or rare
✕	Intermittent or sporadic
	Frequent
	On-going

Impact - Impact on the attributes	
	Insignificant
✕	Minor
	Significant
	Major

Management response - Capacity of management to respond	
	High capacity
	Medium capacity
	Low capacity
✕	No capacity and / or resources

Trend - Development over the last 6 years	
	Decreasing
✕	Static
	Increasing

Name	Impact	Origin	Trend
4.10.5 Changes to oceanic waters			
			

Spatial scale - Area affected by the factor	
	Restricted
✕	Localised
	Extensive
	Widespread

Temporal scale - Occurrence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✕	On-going
Impact - Impact on the attributes	
	Insignificant
	Minor
✕	Significant
	Major
Management response - Capacity of management to respond	
	High capacity
	Medium capacity
	Low capacity
✕	No capacity and / or resources
Trend - Development over the last 6 years	
	Decreasing
	Static
✕	Increasing

Name	Impact			Origin		Trend
4.10.6 Temperature change						
						

Spatial scale - Area affected by the factor	
	Restricted
	Localised
✕	Extensive
	Widespread
Temporal scale - Occurrence of the impact	
	One off or rare
	Intermittent or sporadic
✕	Frequent
	On-going
Impact - Impact on the attributes	
	Insignificant
	Minor
✕	Significant
	Major
Management response - Capacity of management to respond	
	High capacity
	Medium capacity
	Low capacity
✕	No capacity and / or resources

Trend - Developement over the last 6 years	
	Decreasing
	Static
✕	Increasing

Name	Impact			Origin		Trend
4.10.7 Other climate change impacts						
						

Spatial scale - Area affected by the factor	
	Restricted
	Localised
✕	Extensive
	Widespread

Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
✕	Frequent
	On-going

Impact - Impact on the attributes	
	Insignificant
	Minor
✕	Significant
	Major

Management response - Capacity of management to respond	
	High capacity
	Medium capacity
✕	Low capacity
	No capacity and / or resources

Trend - Developement over the last 6 years	
	Decreasing
	Static
✕	Increasing

4.11 Sudden ecological or geological events

Name	Impact			Origin		Trend
4.11.6 Fire (wildfire)						
						

Spatial scale - Area affected by the factor	
✕	Restricted
	Localised
	Extensive
	Widespread

Temporal scale - Occurrence of the impact	
☒	One off or rare
☐	Intermittent or sporadic
☐	Frequent
☐	On-going
Impact - Impact on the attributes	
☐	Insignificant
☒	Minor
☐	Significant
☐	Major
Management response - Capacity of management to respond	
☐	High capacity
☒	Medium capacity
☐	Low capacity
☐	No capacity and / or resources
Trend - Development over the last 6 years	
☐	Decreasing
☒	Static
☐	Increasing

4.12 Invasive/alien species or hyper-abundant species

Name	Impact	Origin	Trend
4.12.2 Invasive/Alien terrestrial species			
			
			
			

Spatial scale - Area affected by the factor	
☐	Restricted
☐	Localised
☒	Extensive
☐	Widespread
Temporal scale - Occurrence of the impact	
☐	One off or rare
☐	Intermittent or sporadic
☒	Frequent
☐	On-going
Impact - Impact on the attributes	
☐	Insignificant
☐	Minor
☒	Significant
☐	Major
Management response - Capacity of management to respond	
☐	High capacity
☒	Medium capacity

	Low capacity
	No capacity and / or resources
Trend - Development over the last 6 years	
	Decreasing
✕	Static
	Increasing

Name	Impact	Origin	Trend
4.12.4 Invasive/Alien marine species			
	  	 	

Spatial scale - Area affected by the factor

✕	Restricted
	Localised
	Extensive
	Widespread

Temporal scale - Occurrence of the impact

✕	One off or rare
	Intermittent or sporadic
	Frequent
	On-going

Impact - Impact on the attributes

	Insignificant
✕	Minor
	Significant
	Major

Management response - Capacity of management to respond

	High capacity
	Medium capacity
✕	Low capacity
	No capacity and / or resources

Trend - Development over the last 6 years

	Decreasing
✕	Static
	Increasing

4.13 Management and institutional factors

Name	Impact	Origin	Trend
4.13.1 Management system/Management plan	 		
	 	 	

Spatial scale - Area affected by the factor

	Restricted
	Localised

✕	Extensive
	Widespread
Temporal scale - Occurrence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✕	On-going
Impact - Impact on the attributes	
	Insignificant
	Minor
✕	Significant
	Major
Management response - Capacity of management to respond	
	High capacity
✕	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Development over the last 6 years	
	Decreasing
✕	Static
	Increasing

Name	Impact			Origin		Trend
4.13.2 Legal framework						

Spatial scale - Area affected by the factor	
	Restricted
	Localised
✕	Extensive
	Widespread
Temporal scale - Occurrence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✕	On-going
Impact - Impact on the attributes	
	Insignificant
	Minor
✕	Significant
	Major
Management response - Capacity of management to respond	
	High capacity

✕	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Development over the last 6 years	
	Decreasing
✕	Static
	Increasing

Name	Impact	Origin	Trend
4.13.3 Governance	 	 	

Spatial scale - Area affected by the factor	
	Restricted
	Localised
	Extensive
✕	Widespread

Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✕	On-going

Impact - Impact on the attributes	
	Insignificant
	Minor
✕	Significant
	Major

Management response - Capacity of management to respond	
	High capacity
✕	Medium capacity
	Low capacity
	No capacity and / or resources

Trend - Development over the last 6 years	
	Decreasing
✕	Static
	Increasing

Name	Impact	Origin	Trend
4.13.4 Management activities	 	 	

Spatial scale - Area affected by the factor	
	Restricted
	Localised

	Extensive
✕	Widespread
Temporal scale - Occurrence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✕	On-going
Impact - Impact on the attributes	
	Insignificant
	Minor
	Significant
✕	Major
Management response - Capacity of management to respond	
	High capacity
✕	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Development over the last 6 years	
	Decreasing
✕	Static
	Increasing

Name	Impact			Origin	Trend
4.13.5 Financial resources					

Spatial scale - Area affected by the factor	
	Restricted
	Localised
	Extensive
✕	Widespread
Temporal scale - Occurrence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✕	On-going
Impact - Impact on the attributes	
	Insignificant
	Minor
✕	Significant
	Major
Management response - Capacity of management to respond	
	High capacity

	Medium capacity
✕	Low capacity
	No capacity and / or resources
Trend - Development over the last 6 years	
	Decreasing
✕	Static
	Increasing

Name	Impact	Origin	Trend
4.13.6 Human resources	 	 	
	 		

Spatial scale - Area affected by the factor	
	Restricted
	Localised
✕	Extensive
	Widespread

Temporal scale - Occurrence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✕	On-going

Impact - Impact on the attributes	
	Insignificant
	Minor
✕	Significant
	Major

Management response - Capacity of management to respond	
	High capacity
✕	Medium capacity
	Low capacity
	No capacity and / or resources

Trend - Development over the last 6 years	
	Decreasing
✕	Static
	Increasing

Name	Impact	Origin	Trend
4.13.7 Low impact research/monitoring activities	 		

Spatial scale - Area affected by the factor	
	Restricted
	Localised

	Extensive
✕	Widespread
Temporal scale - Occurrence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✕	On-going
Impact - Impact on the attributes	
	Insignificant
✕	Minor
	Significant
	Major
Management response - Capacity of management to respond	
	High capacity
✕	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Development over the last 6 years	
	Decreasing
✕	Static
	Increasing

4.17. Serial inscriptions (national or transnational)

4.17.1 - If your property is a serial inscription (national or transnational) please identify which components of the property are impacted by each factor

Not applicable

4.18. Prediction of the state of conservation at next cycle of Periodic Reporting.

4.18.1 - Please predict what the state of conservation of each attribute will be approximately 6 years from now (at the time of the next cycle of Periodic Reporting)

	Attribute	Preserved	Compromised	Seriously compromised	Lost
4.18.1.1	seagrass meadows			✕	
4.18.1.2	stromatolites/microbial mats		✕		
4.18.1.3	endangered species	✕			
4.18.1.4	marine ecosystem		✕		
4.18.1.5	diversity of landscapes	✕			

5. Protection and Management of the Property

5.1. Boundaries and Buffer Zones

5.1.1 - Are the boundaries of the World Heritage property adequate to maintain the property's Outstanding Universal Value?

The boundaries are **adequate to maintain** the property's Outstanding Universal Value

5.1.2 - Are the boundaries of the World Heritage property known and recognised?

The boundaries **are known** by the management authority **but are not known** by local communities/landowners

5.1.3 - Are the buffer zone(s) of the World Heritage property adequate to maintain the property's Outstanding Universal Value?

The buffer zones **do not limit** the ability to maintain the property's Outstanding Universal Value but they could be improved

5.1.4 - Are the boundaries of the buffer zones known and recognised?

The buffer zones of the World Heritage property **are known and recognised** by the management authority **but are not known** by local communities/landowners

5.1.5 - Comments, conclusions and/or recommendations related to boundaries and buffer zones of the World Heritage property

There are three areas which constitute buffer zones around the World Heritage property boundary. These are; coastal area of Yaringa pastoral lease (19,396 ha), part Nerren-Nerren pastoral lease (104,351 ha) and part Murchison House pastoral lease (37,578 ha). These buffer zones total 161,325 ha.

5.2. Protective Measures

5.2.1 - Protective designation (legal, regulatory, contractual, planning, institutional and/or traditional).

The main legislation includes: the Environment Protection & Biodiversity Conservation Act (1999) and the Conservation & Land Management Act (1984).

All World Heritage properties in Australia are 'matters of national environmental significance' protected and managed under national legislation, the Environment Protection and Biodiversity Conservation Act 1999. By law, any action that has, will have, or is likely to have a significant impact on the World Heritage values of a World Heritage property must be referred to the responsible Minister for consideration. This includes impacts originating from outside the property boundary.

Source: Periodic Reporting Cycle 2

5.2.2 - Please list any legislation and other measures (regulatory -including spatial planning- contractual, institutional or traditional) not included in 5.2.1 and indicate the category

5.2.3 - Is the legal framework (i.e. legislation and/or regulation including spatial planning) adequate for maintaining the Outstanding Universal Value including conditions of Integrity and/or Authenticity of the property?

The legal framework for maintaining of the Outstanding Universal Value including conditions of Authenticity and/or Integrity of the World Heritage property provides an adequate basis for effective management and protection

5.2.4 - Is the legal framework (i.e. legislation and/or regulation) adequate in the buffer zone for maintaining the Outstanding Universal Value including conditions of Integrity and/or Authenticity of the property?

There is no legal framework in the buffer zone for maintaining the Outstanding Universal Value including conditions of Authenticity and/or Integrity of the World Heritage property

5.2.5 - Is the legal framework (i.e. legislation and/or regulation) in the broader setting of the World Heritage property adequate for maintaining the Outstanding Universal Value including conditions of Integrity and/or Authenticity of the property?

The legal framework for the broader setting of the World Heritage property provides an adequate basis for effective management and protection of the property, contributing to the maintenance of its Outstanding Universal Value including conditions of Authenticity and/or Integrity

5.2.6 - Can the legal framework (i.e. legislation and/or regulation) be enforced?

There is acceptable capacity/resources to enforce legislation and/or regulation in the World Heritage property but some deficiencies of enforcement remain

5.2.7 - Please provide a short summary of how the legislation, including spatial planning and other regulation, works in practice

Australian Government Intergovernmental Agreement on Environment has obligation to protect WH properties - matters of national environmental significance. Commonwealth environmental assessment and approvals processes are triggered by development proposals with potential to impact OUV. Commonwealth Government Environment Protection, Biodiversity, Conservation (EPBC) Act 1999 and accredited Western Australian assessment/approval processes (via Environmental Protection Authority) protect WH values

5.2.8 - Comments, conclusions and/or recommendations about the information related to the measures taken to protect the World Heritage property

Current measures via State and Commonwealth Government legislation, referrals under the EPBC Act 1999 and accredited West Australian assessment and approvals processes via the Environmental Protection Authority (EPA) are mostly adequate to safeguard the World Heritage values. Shark Bay WHP Strategic Plan, Terrestrial Reserves and Proposed Reserve Additions Management Plan, Conservation and Land Management Act (Conservation Commission of WA) and Ministerial approved management plans protect WH.

5.3. Management System/Management Plan

5.3.1 - Please check the box which most closely match the character of the governance and management system of the property

Public management system at national level

If 'Other', please specify

5.3.2 - Management System: Please indicate which of the various management tools listed below are used to help protect the property.

Other forms of statutory or non-statutory plans (e.g. strategic plans)

5.3.3 - Please give a brief description of the management system currently in place at your property

In addition to the management/strategic plans referred to above, the Shark Bay World Heritage Advisory Committee has the role of providing advice to State/Commonwealth Ministers, external organisations/agencies and community on activities, developments and matters within/adjacent to WHA for protection,conservation, presentation and management of values, research priorities, scientific basis of management principles and practices and maintenance of the OUV and integrity of the Property.

5.3.4 - Management Documents

Title	Status	Available	Date	Link to source
Shark Bay World Heritage Property Strategic Plan 2008-2020	In Force	Available	2008	
Shark Bay Marine Reserves Management Plan 1996-2006	N/A	Available	1996	

Comment

Shark Bay Terrestrial Reserves and Proposed Reserve Additions Management Plan No.75 2012

5.3.5 - Has any use been made of the 2011 Recommendation on the Historic Urban Landscape in developing policies and best practices for the protection of this property?

No use has been made of the 2011 Recommendation on the Historic Urban Landscape

5.3.6 - If the Historic Urban Landscape Recommendation has been used at this property, please describe briefly what has been done.

5.3.7 - Has any use been made of the Policy Document on the Impacts of Climate Change on World Heritage Properties at the property?

Some use has been made of the World Heritage Policy for Climate Change

5.3.8 - If the Climate Change policy has been used, please briefly describe what has been done along with any research on the impacts of Climate Change on the property:

Policy document considered by SB Advisory Committee - workshops on Climate Change organised to consider natural ecosystems and community/economic aspects of site-specific impacts. A Climate-Vulnerability Index (CVI) assessment method determined that storm intensity/frequency, extreme marine heat events and air temperature were potential high impacts to OUV. Climate change and SBWHA, Foundations for Adaptation Strategy/Action Plan, Nov 2018, NESP, ESCC, Report No.7 - www.nespcclimate.com.au

5.3.9 - Has any use been made of the Strategy for Reducing Risks from Disasters at World Heritage Properties at the property ?

No use has been made of the Strategy for Reducing Risks from Disasters at World Heritage Properties

5.3.10 - If the Strategy for Reducing Risks from Disasters at World Heritage Properties has been used, please briefly describe what has been done

5.3.11 - Rate the coordination between the various levels of administration (i.e. national/federal; regional/provincial/state; local/municipal etc.) involved in the management of the World Heritage property

There is coordination between the range of administrative bodies involved in the management of the property, but it could be improved

5.3.12 - Is the management system/plan adequate to maintain the property's Outstanding Universal Value?

The management system/plan is only partially adequate to maintain the property's Outstanding Universal Value

5.3.13 - Is the management system being implemented?

The management system is being only partially implemented

5.3.14 - Is there an annual work/action plan and is it being implemented?

An annual work/action plan exists and many of its activities are being implemented

5.3.15 - Does the management system include formal mechanisms and procedures that ensure participation and contribution of the following groups, living within or near the World Heritage property and/or buffer zone in management decisions that maintain the Outstanding Universal Value of the property?

		Not applicable	No mechanisms for participation	Some participation	Direct participation	Transformative participation in all relevant decision processes
5.3.15.1	Local communities			×		
5.3.15.2	Local authorities				×	
5.3.15.3	Landowners in the property and the buffer zone				×	
5.3.15.4	Indigenous peoples				×	
5.3.15.5	Women				×	
5.3.15.6	Other specific groups					
	If you selected, 'Other specific groups' please specify					

5.3.16 - Please rate the cooperation/relationship between the World Heritage property managers/coordinators/staff and the following groups

		Not applicable	Non-existent	Poor	Fair	Good
5.3.16.1	Local communities				×	
5.3.16.2	Local/Municipal authorities					×
5.3.16.3	Indigenous peoples					×
5.3.16.4	Landowners				×	

5.3.16.5	Women					×
5.3.16.6	Youth/Children			×		
5.3.16.7	Researchers					×
5.3.16.8	Local Visitors/Tourists				×	
5.3.16.9	National/International tourists					×
5.3.16.10	Tourism Industry					×
5.3.16.11	Local businesses and industries				×	
5.3.16.12	NGOs			×		
5.3.16.13	Other specific groups					
	If you selected 'Other specific groups', please specify					

5.3.17 - Please rate the extent to which the management system of your property contributes towards achieving the objectives of the World Heritage Committee's Policy for the Integration of a Sustainable Development Perspective into the Processes of the *World Heritage Convention*

		Not applicable	No contribution	Limited	Significant	Full achievement
5.3.17.1	The management system of the property contributes to gender equality				×	
5.3.17.2	The management system of the property provides ecosystem services/benefits to the local community (e.g. fresh air, water, food, medicinal plants)			×		
5.3.17.3	The management system of the property contributes to social inclusion and equity, improving opportunities for all, irrespective of age, sex, disability, ethnicity, origin, religion or economic or other status				×	
5.3.17.4	The management system of the property integrates a human rights-based approach				×	
5.3.17.5	The management system of the property contributes to fostering inclusive local economic development, and to enhancing livelihood				×	
5.3.17.6	The management system of the property contributes to conflict prevention, including respect for cultural diversity within and around the World Heritage property				×	

5.3.18 - Please provide further details on the ratings of the management system given in the table above

The management systems in place operate on government equal opportunity and inclusion policies.

5.3.19 - Comments, conclusions and/or recommendations related to the management system/plan

6. Financial and Human Resources

6.1. Funding

6.1.1 - If your funding sources do not exactly fit those shown, put the relevant amounts against the funding type that most closely represents your situation, and use the comment box below to provide more details.

		Project costs	Running costs
6.1.1.1	Multilateral funding (GEF, World Bank, etc.)	0 %	0 %
6.1.1.2	Bilateral international funding	0 %	0 %
6.1.1.3	World Heritage Fund (International Assistance)	0 %	0 %
6.1.1.4	Contribution from other conventions and programmes	0 %	0 %
6.1.1.5	International donations (NGOs, foundations, etc.)	0 %	0 %
6.1.1.6	Governmental (national/federal)	0 %	0 %
6.1.1.7	Governmental (regional/provincial/state)	0 %	0 %
6.1.1.8	Governmental (local/municipal)	0 %	0 %
6.1.1.9	In-country donations (NGOs, foundations, etc.)	0 %	0 %
6.1.1.10	Individual visitor charges (e.g. entry, toilets, parking, camping fees, etc.)	0 %	0 %
6.1.1.11	Commercial activities (e.g. merchandising and catering, filming permit, concessions, etc.)	0 %	0 %
6.1.1.12	Other	0 %	0 %
		Total 0 %	Total 0 %

6.1.2 - Please comment here on any other aspects of funding sources not covered in the table above

Australia cannot provide the requested data for 6.1, as funding is spread across a large number of different programs and priorities which may have multiple benefits for particular properties. That is, it is not possible to disaggregate the funding component attributed to each property. Funding comes from the State Government and Commonwealth Government.

6.1.3 - Is the current budget sufficient to manage the World Heritage property effectively?

The available **budget is acceptable** but **could be further improved** to fully meet the management needs

6.1.4 - Are the existing sources of funding secure and likely to remain so?

The existing sources of funding are **secure over the medium-term** and **planning is underway to secure funding over the long-term**

6.1.5 - Comments, conclusion, and/or recommendations related to finance and infrastructure

State Government funds the local Department of Biodiversity, Conservation and Attractions, Parks and Wildlife Service to conduct ongoing programs which also contribute to maintaining the World Heritage values, however no funds are available for specific World Heritage projects. Although these were previously funded by the Commonwealth Government, funding is now limited to support for the employment of an executive/project officer and direct costs for the operation of the advisory committee.

6.1.6 - Estimate the distribution of men and women involved in the management, conservation, interpretation of the World Heritage properties and the extent to which they are drawn from local communities.

		From local communities %	From elsewhere %
6.1.6.1	Men	10 %	30 %
6.1.6.2	Women	30 %	30 %
		Total 40 %	Total 60 %

6.1.7 - Are available human resources adequate to manage the World Heritage property?

Human resources **partly meet** the management needs of the World Heritage property

6.1.8 - Considering the management needs of the World Heritage property, please rate the availability of professionals in the following disciplines

Conservation	Good
Environmental sustainability	Fair
Community participation and inclusion	Fair
Risk preparedness	Good
Capacity development and education	Not available
Administration	Good
Research and monitoring	Fair
Awareness raising and public information/communication	Not applicable
Marketing and promotion	Poor
Interpretation	Poor
Visitor management/tourism	Good
Enforcement (custodians, police)	Fair

6.1.9 - Please rate the availability of training opportunities for the management of the World Heritage property in the following disciplines

Conservation	Good
Environmental sustainability	Not available
Community participation and inclusion	Fair
Risk preparedness	Good
Capacity development and education	Fair
Administration	Good
Research and monitoring	Fair
Awareness raising and public information/communication	Poor
Marketing and promotion	Poor
Interpretation	Fair

Visitor management/tourism	Good
Enforcement (custodians, police)	Good

6.1.10 - Has any use been made of the World Heritage Strategy for Capacity Building at the property?

No use has been made of the World Heritage Strategy for Capacity Building

6.1.11 - If the World Heritage Strategy for Capacity Building has been used, please briefly describe what has been done.

6.1.12 - Are there site-specific capacity building plans or programmes that develop local expertise and that contribute to the transfer of skills for the conservation and management of the World Heritage property?

A site-based capacity building plan or programme has been developed but it is not implemented and skills are not being transferred

6.1.13 - Comments, conclusions and/or recommendations related to human resources, expertise and training

7. Scientific Studies and Research Projects

7.1 - Is there adequate knowledge (scientific or traditional) about the values and attributes of the World Heritage property to support planning, management and decision-making to ensure that Outstanding Universal Value is maintained?

Knowledge about the values and attributes of the World Heritage property is **acceptable** for most key areas but there are gaps

7.2 - Is there a planned programme of research at the property which is directed towards management needs and/or improving understanding of Outstanding Universal Value?

There is a **comprehensive, integrated programme** of research, which is relevant to management needs and/or improving understanding of Outstanding Universal Value

7.3 - Are results from research programmes publicly available and disseminated?

Research results **are shared** widely with **active outreach** to local communities and national and international audiences

7.4 - Comments, conclusions and/or recommendations related to scientific studies and research projects

Western Australian Marine Science Institution (WAMSI) report released October 2020 - 'A Snapshot of Marine Research in Shark Bay (Gathaagudu): Literature Review and Metadata Collation (1948-2020)', has 775 entries representing science and indigenous knowledge gathered in Shark Bay. It forms part of the WAMSI Shark Bay Science Plan and contributes to understanding/knowledge of Shark Bay marine environment.

8. Education, Information and Awareness Building

8.1 - Please rate the awareness and understanding of the existence and justification for inscription of the World Heritage property amongst the following groups

Local communities	Fair
Local/municipal authorities	Fair
Indigenous peoples	Poor
Landowners	Poor
Women	Poor
Youth/children	Fair
Researchers	Good
Local visitors	Poor
National/international tourists	Fair
Tourism industry	Fair
Local businesses and industries	Poor
NGOs	Poor
Other specific groups	Not applicable
If you selected 'Other specific groups', please describe	

8.2 - Does the property have a heritage education programme(s) for children and/or youth, that can contribute to a better understanding of heritage, promote diversity and foster intercultural dialogue?

There is a **limited and ad hoc education** and awareness programme for children and/or youth

8.3 - Who are the target audiences for education and awareness programmes at your property?

Local communities
Indigenous peoples
Youth/children

Local Visitors
Tourism industry

8.4 - Please rate the adequacy of the following visitor facilities and services at the World Heritage property for education, information, interpretation and awareness building

Visitor centre	Good
Site museum	Good
Information booths	Not provided but needed
Guided tours	Fair
Trails/routes	Fair
Printed information materials	Good
Online (website, social media, etc.)	Good
Transportation facilities	Not needed
Other	Not needed
If 'Other' is selected, please specify	

8.5 - Comments, conclusions and/or recommendations related to education, information and awareness building

9. Visitor Management

9.1 - Please provide estimated annual visitor numbers (including national and international visitors) since the last Periodic Report

127,000 / 120,100 / 115,000 / 98,000 / 97,000 /

9.2 - What information sources are used to collect visitor statistics?

Entry tickets and registries
Accommodation establishments
Tourism industry
Other
Airport arrivals

9.3 - What is the average length stay of a visitor to the World Heritage property?

More than four overnight stays

9.4 - Please provide the source of information

Tourism Western Australia Note length of stay - domestic 4 nights, international 3 nights

9.5 - What is the approximate average daily visitor expenditure? (Please provide an estimated monetary figure in USD)

206.63 /

9.6 - Please provide the source of information

Tourism WA

9.7 - Does the management system/plan for the World Heritage property include a strategy with an action plan to manage visitors, tourism activity and its derived economic, socio-cultural and environmental impacts?

There is a **strategy** to manage visitors, tourism activity and its derived impacts on the World Heritage property but there are **some deficiencies in implementation**

9.8 - Please provide any comments relating to the answer provided above in question 9.7

Property Strategic Plan does address actions to manage, monitor and evaluate the impact on World Heritage values of nature-based tourism developments and sustainable visitor use. To develop and implement programs for tour operators and guides and provide them with current information is also a Plan action, as is an annual audit of tourism promotion materials to ensure accuracy and appropriate behaviour within the Property by visitors.

9.9 - Is visitor use effectively managed to maintain the Outstanding Universal Value of the property?

Visitor use of the World Heritage property is managed but **improvements could be made**

9.10 - Is the effectiveness of tourism management regularly monitored?

No

If a different system, please specify

9.11 - How does the tourism industry cooperate with the site management to improve visitor experiences and maintain the Outstanding Universal Value of the World Heritage property?

There is **good cooperation** between those responsible for the World Heritage property and the tourism industry **to present the Outstanding Universal Value and**

increase appreciation

9.12 - How well is the information on the Outstanding Universal Value of the property presented and interpreted?

The presentation and interpretation of the Outstanding Universal Value of the property is **acceptable** but improvements could be made

9.13 - At how many locations is the World Heritage emblem displayed at the property?

In **many locations** and **easily visible** to visitors

9.14 - How does visitor/tourism revenue (e.g. entry charges, permits) contribute to the management of the World Heritage property?

Fees are collected, and make **some contribution** to the management of the World Heritage property

9.15 - Are there locally driven sustainable tourism initiatives?

Yes

If 'Yes', please specify

Wula Gura Nyinda, Monkey Mia Dolphin Resort, Naturetime Tours, Ocean Park Aquarium, Bush Heritage Australia, Shark Bay Coastal Tours

9.16 - Are the benefits of tourism shared with local communities?

Yes

If 'Yes', please specify

Economic benefits to local community and businesses

9.17 - Comments, conclusions and/or recommendations related to visitation/tourism/public use of the World Heritage property

The Covid-19 outbreak has increased visitation to the Property from within Western Australia and additional nature-based tourism opportunities and activities may adversely impact on the integrity of the World Heritage values.

10. Monitoring

10.1 - Is there a monitoring programme at the property directed towards management needs and/or towards improving the understanding of the Outstanding Universal Value?

There is **considerable monitoring** but it is not directed towards management needs and/or improving the understanding of Outstanding Universal Value

10.2 - Is necessary information available in order to define key indicators for measuring the state of conservation and are they used in monitoring how the Outstanding Universal Value of the property is being maintained?

Information on the values of the World Heritage property is **sufficient to define key indicators**, but this has not been done

10.3 - Are key indicators defined and in place for the following principal aspects of the property?

	Extend of indicators	Not applicable	No indicators	Indicators have been defined but are not yet in use	Indicators are in place and in use since the last Periodic Reporting cycle
10.3.1	State of conservation			×	
10.3.2	Effectiveness of the management system		×		
10.3.3	Character of governance		×		
10.3.4	Appropriate synergy with other conservation designations		×		
10.3.5	Contribution to sustainable development		×		
10.3.6	Capacity development		×		

10.4 - Please provide information on relevant key indicators adopted at the property

10.5 - Please rate the level of involvement in monitoring of the following groups:

World Heritage managers/coordinators and staff	Good
Local/municipal authorities	Poor
Local communities	Non-existent
Indigenous peoples	Poor
Landowners	Poor
Women	Poor
Researchers	Good
Tourism industry	Fair
Local businesses and industry	Poor
NGOs	Non-existent

Other specific groups	Not applicable
If you selected 'Other specific groups', please specify	

10.6 - Has the State Party implemented relevant recommendations arising from the World Heritage Committee?

No relevant Committee recommendations to implement

10.7 - Please provide comments relevant to the implementation of recommendations from the World Heritage Committee.

10.8 - Comments, conclusions and/or recommendations related to Monitoring

11. Identification of Priority Management Needs

11.1 - Identification of Priority Management Needs

5.1	Boundaries and Buffer Zones	
5.1.2	The boundaries of the World Heritage property are known by the management authority but are not known by local communities/landowners	✕
5.1.4	The buffer zones of the World Heritage property are known and recognised by the management authority but are not known and recognized by local communities/landowners	✕
5.2	Protective Measures	
5.2.4	There is no legal framework in the buffer zone for maintaining the Outstanding Universal Value including conditions of Authenticity and/or Integrity of the World Heritage property	✕
5.2.6	There is acceptable capacity/resources to enforce legislation and/or regulation in the World Heritage property but some deficiencies of enforcement remain	✕
5.3	Management System/Management Plan	
5.3.5	No use has been made of the Historic Urban Landscape Recommendation to develop policies and best practices for the protection of the property	✕
5.3.7	Some use has been made of the Policy Document on the Impacts of Climate Change on World Heritage Properties at the property	✕
5.3.9	No use has been made of the Strategy for Reducing Risks from Disasters at World Heritage Properties at the property	✕
5.3.11	There is coordination between the range of administrative bodies involved in the management of the property, but it could be improved	✕
5.3.12	The management system/plan is only partially adequate to maintain the property's Outstanding Universal Value	✕
5.3.13	The management system at the property is only being partially implemented	✕
5.3.17	In a limited manner, the management system of the World Heritage property does provide ecosystem services/benefits to the local community (e.g. fresh air, water, food, medicinal plants)	✕
6.1	Funding	
6.1.3	The available budget is acceptable but could be further improved to fully meet the management needs of the World Heritage property	
6.1.7	Human resources partly meet the management needs of the World Heritage property	✕
6.1.10	No use has been made of the World Heritage Strategy for Capacity Development at the World Heritage property	✕
6.1.12	A site-based capacity building plan or programme has been developed but it is not implemented and skills are not being transferred	✕
8	Education, Information and Awareness Building	
8.2	There is a limited and ad hoc education and awareness programme for children and/or youth	✕
9	Visitor Management	
9.7	There is a strategy to manage visitors, tourism activity and its derived impacts on the World Heritage property but there are some deficiencies in implementation	✕
9.9	Visitor use of the World Heritage property is managed but improvements could be made	
9.12	The presentation and interpretation of the Outstanding Universal Value of the property is acceptable but improvements could be made	✕
10	Monitoring	
10.1	There is considerable monitoring at the World Heritage property but it is not directed towards management needs and/or improving understanding of Outstanding Universal Value	✕
10.2	Information on the values of the World Heritage property is sufficient to define key indicators, but this has not been done	✕

Please select -9 more issues.

☒ Please save this question to reflect changes

12. Summary and Conclusions

12.1. Summary - Factors affecting the Property

12.1.1 - Summary - Factors affecting the Property

4.5	Biological resource use/modification							
4.5.1		Fishing/collecting aquatic resources						
4.7	Local conditions affecting physical fabric							
4.7.3	Temperature	Criteria (ix) expanse of seagrass meadows, diversity of seagrass species (12), high genetic biodiversity, temperate and tropical marine environments. Higher temperatures = drought, affects plant and animal species plus terrestrial environment, etc.	Marine heatwave event 2011 = loss of 24% of seagrass meadows. Researching options to restore seagrass, i.e. seeding/replanting, so far unsuccessful.	Monitoring being undertaken by researchers from DBCA Parks and Wildlife Service and Oceans Institute at University of Western Australia	As potential for both marine and terrestrial environments to be impacted significantly by increased temperatures from another heat wave event, immediate action is required.	Lead - Department of Biodiversity, Conservation and Attractions - Parks and Wildlife Service and Oceans Institute, University of Western Australia (other relevant researchers).	*	
4.7.7		Pests						
4.8	Social/Cultural uses of heritage							
4.8.6	Impacts of tourism/Visitation/Recreation	Criteria (vii) stromatolites, Hamelin Pool, coastal scenery, Shell Beach, Big and Little Lagoons, Peron Peninsula - accessible areas of exceptional natural beauty and aesthetic importance.	Encouraging a range of tourism opportunities/experiences that support the presentation and protection of World Heritage values	Annual monitoring of environmental impacts as a condition of tourism development proposals.	Annually	Department of Biodiversity, Conservation and Attractions - Parks and Wildlife Service	*	
4.10	Climate change and severe weather events							
4.10.5	Changes to oceanic waters	Criteria (viii) stromatolites, unique hydrological structure of bays, banks and sills, seagrass meadows, genetic biodiversity of both temperate and tropical marine environments.	Monitoring of regrowth and degradation of seagrass meadows due to 2010/11 marine heatwave event and loss of 24% of seagrass.	Research and monitoring of seagrass banks is conducted regularly by DBCA and University of WA researchers.	Bi-annually	Department of Biodiversity, Conservation and Attractions - Parks and Wildlife Service (lead agency) Oceans Institute, University of Western Australia Western Australian Marine Science Institution	*	
4.10.6	Temperature change	Criteria (ix) expanse of seagrass meadows, diversity of seagrass species (12), high genetic biodiversity, temperate and tropical marine environments. Higher temperatures = drought, affects plant and animal species plus terrestrial environment, etc.	Extensive research re options to regenerate seagrass banks	Regular monitoring of status of seagrass banks/meadows and predicted/potential marine heatwave events by both DBCA and University of Western Australia Ocean Institute researchers.	Summer months	DBCA and University of Western Australia Oceans Institute, other relevant researchers.	*	
4.10.7		Other climate change impacts						
4.13	Management and institutional factors							
4.13.1	Management system/Management plan	Criteria (vii) stromatolites, Hamelin Pool, coastal scenery, Shell Beach, Big and Little Lagoons, Peron Peninsula. Criteria (ix) expanse of seagrass meadows, diversity of seagrass species.	Review and/or replace appropriate management plans for both terrestrial and marine environments within the World Heritage property.	Key Performance Indicators (KPIs) and other relevant identified programs and actions should be monitored regularly to ensure that the World Heritage values are maintained to highest level possible.	KPIs should be monitored at least annually	Department of Biodiversity, Conservation and Attractions, Parks and Wildlife Service	*	

4.13.5	Financial resources	Criteria (viii) stromatolites, Criteria (ix) expanse of seagrass meadows, diversity of seagrass species (12), high genetic biodiversity, temperate and tropical marine environments.	Urgent funding allocation to replace outdated terrestrial and marine management plans. Priority - Replacement of boardwalk - Hamelin Pool, following destruction by Cyclone Seroja. Potential stromatolite damage with current visitor access.	Annually	Five yearly financial agreement between Western Australian State Government (DBCA) and Australian Government.	Federal Government Department of Agriculture, Water and Environment. Western Australian Government Dept Biodiversity, Conservation and Attractions, Parks and Wildlife Service	*
4.13.6	Human resources						

Question not completed

12.2. Summary - Management Needs

12.2.1 - Summary - Management Needs

5.1	Boundaries and Buffer Zones				
		Actions	Timeframe	Lead agency (and others involved)	More info / comment
5.1.2	The boundaries of the World Heritage property are known by the management authority but are not known by local communities/landowners	The boundaries are adequate to maintain the property's Outstanding Universal Value	*	*	*
5.1.4	The buffer zones of the World Heritage property are known and recognised by the management authority but are not known and recognized by local communities/landowners	Buffer zones were originally part of pastoral leases and therefore relatively remote from the settlements/communities within the World Heritage property. Action - Provide the local community with understanding re purpose of buffer zones.	As soon as practical.	State Government Department of Biodiversity, Conservation and Attractions, Parks and Wildlife Service - Western Australia.	Relevant landowners are aware that World Heritage property buffer zones are in place to enhance protection of the World Heritage values. However, it is unlikely the buffer zones and their purpose is known by the local community of Shark Bay.
5.2	Protective Measures				
5.2.4	There is no legal framework in the buffer zone for maintaining the Outstanding Universal Value including conditions of Authenticity and/or Integrity of the World Heritage property	No action applicable	Not applicable	Western Australian Department of Biodiversity, Conservation and Attractions, Parks and Wildlife Service. Australian Government Department of Agriculture, Water and Environment.	*
5.2.6	There is acceptable capacity/resources to enforce legislation and/or regulation in the World Heritage property but some deficiencies of enforcement remain	Australian Government Intergovernmental Agreement on Environment has obligation to protect WH properties - matters of national environmental significance. Commonwealth environmental assessment and approvals processes are triggered by development pro	*	*	*
5.3	Management System/Management Plan				
5.3.5	No use has been made of the Historic Urban Landscape Recommendation to develop policies and best practices for the protection of the property				

5.3.7	Some use has been made of the Policy Document on the Impacts of Climate Change on World Heritage Properties at the property	Shark Bay World Heritage Advisory Committee has organised Climate Change (CC) vulnerability workshops, etc., is currently compiling CC Adaptation Strategy Action Plan with referral to above Policy Document.	Not applicable	Shark Bay World Heritage Advisory Committee Western Australian Department of Biodiversity, Conservation and Attractions, Parks and Wildlife Service	Funding avenues are being explored to enable compilation of a Climate Change Adaptation Strategy/ Action Plan for the Shark Bay WH property.
5.3.9	No use has been made of the Strategy for Reducing Risks from Disasters at World Heritage Properties at the property				
5.3.11	There is coordination between the range of administrative bodies involved in the management of the property, but it could be improved	More regular engagement between State Government and Australian Government agencies responsible for management of WH property, plus World Heritage advisory committees.	Quarterly	State Government (Department of Biodiversity, Conservation and Attractions - Parks and Wildlife Service) and Australian Government (Department of Agriculture, Water and Environment). Others - World Heritage advisory committees.	*
5.3.12	The management system/plan is only partially adequate to maintain the property's Outstanding Universal Value				
5.3.13	The management system at the property is only being partially implemented				
5.3.17	In a limited manner, the management system of the World Heritage property does provide ecosystem services/benefits to the local community (e.g. fresh air, water, food, medicinal plants)	The management system of World Heritage property provides benefits to the local community by maintaining the terrestrial and marine environments/ecosystems of the area for residents and visitors, indirectly contributing also to the local economy.	On-going	All agencies involved in maintaining the values of the World Heritage property.	*

6.1	Funding				
6.1.7	Human resources partly meet the management needs of the World Heritage property	The human resource component of WHP management is provided via State department - DBCA. Majority of actions/projects undertaken by staff contribute to the maintenance of the World Heritage OUV.	On-going/daily basis	Western Australian Department of Biodiversity, Conservation and Attractions (DBCA), Parks and Wildlife Service.	Whilst additional staff would be beneficial, the overall number of employees is limited by budgetary constraints.
6.1.10	No use has been made of the World Heritage Strategy for Capacity Development at the World Heritage property		*	*	
6.1.12	A site-based capacity building plan or programme has been developed but it is not implemented and skills are not being transferred				

8	Education, Information and Awareness Building
---	--

8.2	There is a limited and ad hoc education and awareness programme for children and/or youth	Occasional engagement with local primary school children occurs, but there is no formal awareness program in place for young people.	No formal education/awareness program scheduled.	Western Australian Department of Biodiversity, Conservation and Attractions, Parks and Wildlife Service.	*
-----	--	--	--	--	---

9		Visitor Management			
9.7		There is a strategy to manage visitors, tourism activity and its derived impacts on the World Heritage property but there are some deficiencies in implementation			
9.12		The presentation and interpretation of the Outstanding Universal Value of the property is acceptable but improvements could be made			

10		Monitoring			
10.1	There is considerable monitoring at the World Heritage property but it is not directed towards management needs and/or improving understanding of Outstanding Universal Value	Monitoring is not always directed towards improving understanding of Outstanding Universal Value of the World Heritage property.	Monitoring of the status of World Heritage values should ideally be carried out regularly.	Western Australian Department of Biodiversity, Conservation and Attractions, Parks and Wildlife Service.	*
10.2	Information on the values of the World Heritage property is sufficient to define key indicators, but this has not been done	Research and information on the WH values needs to inform the key indicators and this action is required to be undertaken	As soon as possible	Western Australian Department of Biodiversity, Conservation and Attractions, Parks and Wildlife Service	*

Summary - Management Needs completed

12.3. Conclusions on the State of Conservation of the Property

12.3.1 - Following the analysis undertaken for this report, what is the current state of Authenticity of the World Heritage property?

Not applicable (sites inscribed exclusively under criteria vii to x (natural World Heritage properties))

12.3.2 - Following the analysis undertaken for this report, what is the current state of Integrity of the World Heritage property?

The Integrity of the World Heritage property **has been compromised** by factors described in this report

12.3.3 - Following the analysis undertaken for this report, what is the current state of the World Heritage property's Outstanding Universal Value?

The World Heritage property's Outstanding Universal Value has been **maintained**.

12.3.4 - What is the current state of the property's other values?

Other important cultural and/or natural values are being **partially degraded** but the state of conservation of the World Heritage property has **not been significantly impacted**

12.3.5 - Comments, conclusions and/or recommendations related to the state of conservation of the property.

Seagrass banks have been reduced by 24% since 2010/11 marine heatwave event, and processes to regrow the seagrass are being researched and trialed. There has also been some natural regrowth, although it appears that due to the hot water event, areas of tropical species of seagrass are increasing, whilst the areas of temperate species are diminishing. Overall impacts from the reduction in seagrass meadows have yet to be determined in relation to the state of conservation of the property.

13. Impact of World Heritage Status

13.1 - Please rate the impacts of World Heritage status of the property in relation to the following areas

Conservation	Very positive
Research and monitoring	Very positive
Management effectiveness	Positive
Quality of life for local communities and indigenous peoples	Positive
Recognition	Positive
Education	Positive
Infrastructure development	No impact
Funding for the property	Negative
International cooperation	Not applicable
Political support for conservation	Positive
Legal/Policy framework	Positive
Advocacy	Positive
Institutional coordination	Very positive
Security	Not applicable
Gender equality	Positive
Provision of ecosystem services/ benefits to local communities	Positive
Social inclusion and equity, and improvement of opportunities for all, irrespective of age, sex, disability, ethnicity, origin, religion, or economic or other status	Positive
Fostering inclusive local economic development and enhancing livelihood	Positive
Contributing to conflict prevention, including respect for cultural diversity within and around heritage properties	Positive
Other	Not applicable
If 'Other', please specify	

13.2 - Comments, conclusions and/or recommendations related to World Heritage status and its impacts

14. Good Practice in the Implementation of the World Heritage Convention

14.1 - Example of good practice in World Heritage protection, identification, conservation or management at the property level

Establishment of Shark Bay World Heritage Advisory committees (two initially in 1997 - community and scientific/technical) to oversee and provide advice to government, external agencies and the community on activities, proposed developments and other matters pertaining to the World Heritage values and the protection, conservation, presentation and management of the property, as well as research priorities and the scientific basis of management principles and practices. The current advisory committee encompasses both community and scientific/technical members and receives referrals for advice from organisations, individuals and government bodies in relation to development proposals, activities and events which have the potential to impact negatively on the the World Heritage listed values and attributes.

14.2 - Define which topics are covered by this example of best practice at the property level

Sustainable Development
State of Conservation
Management

15. Assessment of the Periodic Reporting Exercise

15.1. Relevance of Periodic Reporting

15.1.1 - Has the Periodic Reporting process improved the understanding of the following?

Management effectiveness to maintain the Outstanding Universal Value
Monitoring and reporting

15.1.2 - Please rate the follow-up to conclusions and recommendations from previous Periodic Reporting exercise by the following entities

State Party	Fair
Site Managers	Fair
UNESCO World Heritage Centre	Fair
Advisory Bodies (ICOMOS, IUCN, ICCROM)	No follow-up

15.2. Use of Data

15.2.1 - How do the authorities in charge of the property plan to use the data recorded from this cycle of Periodic Reporting?

Revision of priorities/strategies/policies for the protection, management and conservation of heritage
Update of management plans

15.2.2 - Comments on use of data from the Cycle of Periodic Reporting

15.3. Timing and resources

15.3.1 - Entities involved in the filling out of this online questionnaire (tick as many boxes as applicable)

Governmental institutions responsible for cultural and natural heritage
Site Manager/Coordinator World Heritage property staff
Focal points of other international conventions/programmes

15.3.2 - Has a gender balanced contribution and participation been considered in the filling out of this questionnaire?

Gender balance has been **explicitly considered** in the process **but there are still deficiencies in the implementation.**

15.3.3 - Were you given adequate time (i.e. roughly ten months) to gather necessary information and to fill in this questionnaire?

Yes

15.3.4 - Please estimate the time (working hours) needed to complete this questionnaire

25 / 4 / 37 /

15.3.5 - Did you mobilise any additional resources to fill out this questionnaire?

	Additional resources	No	Yes
15.3.5.1	Human resources	☒	☐
15.3.5.2	Financial resources for organizing consultation meetings/ training	☒	☐

15.4. Format and content of the Periodic Report

15.4.1 - How accessible was the information required to complete this questionnaire?

Most required information was accessible.

15.4.2 - Was the questionnaire easy to use and clear to understand?

		Very Difficult	Difficult	Easy	Very easy
15.4.2.1	Ease of use of questionnaire	☐	☐	☐	☒
15.4.2.2	Clarity of questions	☐	☐	☒	☐

15.4.3 - Please provide suggestions for improvement of the Periodic Reporting questionnaire

15.5. Training and Guidance

15.5.1 - Please rate the level of support in terms of training and guidance from the following entities in completing this questionnaire

UNESCO World Heritage Centre	Good
UNESCO (other sectors/field offices)	Not applicable
UNESCO National Commission	Not applicable
ICOMOS International	Not applicable
IUCN International	Not applicable
ICCROM international/regional	Not applicable
ICOMOS national/regional	Not applicable

IUCN national/regional	Not applicable
------------------------	----------------

15.5.2 - Please rate the level of support for completing the Periodic Reporting questionnaire from the following entities

UNESCO World Heritage Centre	Good
State Party Representative (national Focal Point)	Poor
UNESCO other sectors (e.g. field office)	Not applicable
National Commission for UNESCO	Not applicable
ICOMOS International	Not applicable
ICCROM International/regional	Not applicable
ICOMOS national/regional	Not applicable
IUCN national/regional	Not applicable
IUCN International	Not applicable

15.5.3 - Were the online training resources prepared by the World Heritage Centre regarding Periodic Reporting adequate for you to complete this questionnaire?

Yes

15.5.4 - If you found that the online training resources were not adequate, what changes would you like to see implemented?

15.6. Actions that will require formal consideration by the World Heritage Committee

15.6.1 - Summary of actions that will require formal consideration by the World Heritage Committee

• **Statement of Outstanding Universal Value for the property as adopted by the World Heritage Committee**

Reason for update: Minor and typographic errors are; Criterion vii second line - space required between 'is also'. Criterion x - Note the Western Barred Bandicoot has been renamed the Shark Bay Bandicoot. Integrity - Note that gypsum mining leases have been extinguished. Protection and Management Requirements - Note Dirk Hartog Island became National Park in 2009. The Ministerial Council formed as part of the original management agreement ceased to operate in 2007.

Changes to these items will need to go through the proper processes.

15.7. Comments, conclusions and/or recommendations related to the Assessment of the Periodic Reporting Exercise

15.7.1 - Comments, conclusions and/or recommendations related to the Assessment of the Periodic Reporting Exercise

15.7.2 - Thank you for having filled in all the questions. Please contact your National Focal Point for validation.