

# Willandra Lakes Region

## 1. World Heritage Property Data

### 1.1 - Name of World Heritage property


Willandra Lakes Region

### 1.2 - World Heritage property details

### 1.3 - Geographic information table

Name	Coordinates	Property (ha)	Buffer zone (ha)	Total (ha)	Inscription year
Willandra Lakes Region	-34 / 143	240000	0	240000	1981
Total (ha)		240000	0	240000	

### 1.4 - Map(s)

Title	Date	Link to source
Willandra Lakes Region - Map of the inscribed property	2012	

### Comment

The World Heritage boundary is correct. The map will require updating as the Travelling Stock Routes (TSR) have now been incorporated into Mungo National Park

### 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](#)
- [www.nationalparks.nsw.gov.au/conservation-and-heritage/willandra-lakes www.nationalparks.nsw.gov.au/visit-a-park/parks/mungo-national-park www.environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/types-of-protected-areas/world-heritage-listed-areas whc.unesco.org/en/list/167/ www.environment.gov.au/heritage/places/world/willandra vichuans.github.io/datasheet/output/site/willandra-lakes-region/ https://fieldcapture.ala.org.au/project/index/9d445267-3a9f-44fa-960d-747349616377](#)

## 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	<b>International Register of Cultural Property under Special Protection</b> (1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict)		×
2.1.2	<b>List of Cultural Property under Enhanced Protection</b> (Second Protocol to the 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict)		×
2.1.3	<b>The List of Wetlands of International Importance (The Ramsar List)</b> (Convention on Wetlands of International Importance (Ramsar Convention))		×
2.1.4	<b>World Network of Biosphere Reserves</b> Man and the Biosphere (MAB) Programme		×
2.1.5	<b>Global Geoparks Network</b> UNESCO Global Geoparks		×

### 2.2 - Please provide comments on 2.1 if necessary

The Willandra Lakes is not a wetland. it is a dry lake system that dried up some 15,000 years ago

### 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?**

No

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

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

The Willandra Lakes Region, in the semi-arid zone in southwest New South Wales (NSW), contains a relict lake system whose sediments, geomorphology and soils contain an outstanding record of a low-altitude, non-glaciated Pleistocene landscape. It also contains an outstanding record of the glacial-interglacial climatic oscillations of the late Pleistocene, particularly over the last 100,000 years. Ceasing to function as a lake ecosystem some 18,500 years ago, Willandra Lakes provides excellent conditions to document life in the Pleistocene epoch, the period when humans evolved into their present form.

The undisturbed stratigraphic context provides outstanding evidence for the economic life of *Homo sapiens sapiens* to be reconstructed. Archaeological remains such as hearths, stone tools and shell middens show a remarkable adaptation to local resources and a fascinating interaction between human culture and the changing natural environment. Several well-preserved fossils of giant marsupials have also been found here.

Willandra contains some of the earliest evidence of *Homo sapiens sapiens* outside Africa. The evidence of occupation deposits establishes that humans had dispersed as far as Australia by 42,000 years ago. Sites also illustrate human burials that are of great antiquity, such as a cremation dating to around 40,000 years BP, the oldest ritual cremation site in the world, and traces of complex plant-food gathering systems that date back before 18,000 years BP associated with grindstones to produce flour from wild grass seeds, at much the same time as their use in the Middle East. Pigments were transported to these lakeshores before 42,000 years BP. Evidence from this region has allowed the typology of early Australian stone tools to be defined.

Since inscription, the discovery of the human fossil trackways, aged between 19,000 and 23,000 years BP, have added to the understanding of how early humans interacted with their environment.

**Criterion (iii):** The drying up of the Willandra Lakes some 18,500 years BP allowed the survival of remarkable evidence of the way early people interacted with their environment. The undisturbed stratigraphy has revealed evidence of *Homo sapiens sapiens* in this area from nearly 50,000 years BP, including the earliest known cremation, fossil trackways, early use of grindstone technology and the exploitation of fresh water resources, all of which provide an exceptional testimony to human development during the Pleistocene period.

**Criterion (viii):** The Australian geological environment, with its low topographic relief and low energy systems, is unique in the longevity of the landscapes it preserves, and the Willandra Lakes provides an exceptional window into climatic and related environmental changes over the last 100,000 years. The Willandra Lakes, largely unmodified since they dried out some 18,500 years BP, provide excellent conditions for recording the events of the Pleistocene Epoch, and demonstrate how non-glaciated zones responded to the major glacial-interglacial fluctuations.

The demonstration at this site of the close interconnection between landforms and pedogenesis, palaeochemistry, climatology, archaeology, archaeomagnetism, radiocarbon dating, palaeoecology and faunal extinction, represents a classic landmark in Pleistocene research in the Australasian area. Willandra Lakes Region is also of exceptional importance for investigating the period when humans became dominant in Australia, and the large species of wildlife became extinct, and research continues to elucidate what role humans played in these events.

###### Integrity

The property as nominated covered some 3,700 km<sup>2</sup>, following cadastral boundaries and including the entire Pleistocene lake and river systems from Lake Mulurulu in the north to the Prungle Lakes in the south, thereby including all elements contributing to its Outstanding Universal Value. In 1995 boundaries for the property were revised in order to 'better define the area containing the World Heritage values and ... facilitate the management of the property'. The revised boundary follows topographic features, with an appropriate buffer within the boundary, to more closely delineate the entire lake and river system but exclude extraneous pastoral areas. The area of the property now covers ~2,400 km<sup>2</sup>.

Although pastoral development has resulted in ecological changes, stocking rates are low and dependent on natural unimproved pasture and the area remains predominantly vegetated in its natural condition. For leasehold properties within the property, Individual Property Plans (IPPs) have been developed and implemented, including actions such as excluding grazing from sensitive areas and relocating watering points to minimise the impact of grazing, to protect Outstanding Universal Value while also allowing sustainable land uses. There have also been significant additions to Mungo National Park, including some of the most archaeologically significant areas of the property.

Much of the scientific and cultural significance of the property is related to the values embedded in or associated with the lunettes. Erosion and deflation continues to expose material in already disturbed areas of the lunettes. At time of listing approximately 8% was extensively eroded, while 72% remained vegetated and intact, with the remaining area partly eroded.

###### Authenticity

The authenticity of the natural and Aboriginal cultural heritage values of the Willandra has been established in the first instance, in a western or European cultural sense, by rigorous scientific investigation and research by leading experts in their fields. Researchers have established the great antiquity and the richness of Aboriginal cultural heritage at Willandra which brought about a reassessment of the prehistory of Australia and its place in the evolution and the dispersal of humans across the world.

For the Traditional Tribal Groups (TTGs) that have an association with the area there has never been any doubt about the authenticity of the Willandra and any particular sites it contains. The TTGs have maintained their links with the land and continue to care for this important place and participate in its management as a World Heritage property. Aboriginal people of the Willandra take great pride in their cultural heritage and maintain their connection through modern day cultural, social and economic practices.

###### Protection and management requirements

The majority of the area comprises pastoral stations leased from the State and administered by the NSW Land and Property Management Authority. The remaining land contains a large part of the Mungo National Park, which is managed by the NSW National Parks and Wildlife Service (NPWS), and which has grown from 4.2% of the property at time of inscription to 29.9% in 2012. There are also some small areas of freehold land within the property. The NSW Office of Environment and Heritage provides archaeological expertise over all land tenures within the property. The statutory basis for management is established under New South Wales legislation by the *Willandra Lakes Region Environmental Plan*. This provides for a Community Management Council, Technical and Scientific Advisory Committee, Elders Council of Traditional Tribal Groups affiliated with the Willandra, and Landholders Protection Group to input advice on the management of the World Heritage Area.

Upon listing, the World Heritage Committee requested that a management plan be 'rapidly established for the whole area.' This process was begun in 1989 with the first property management plan – *Sustaining the Willandra* – finalised in 1996 following extensive consultation with all stakeholders. Individual Property Plans have been developed to protect World Heritage values on the pastoral stations. Similarly, Mungo National Park, managed jointly by the NPWS and Traditional Tribal Groups under a Joint Management Agreement, is subject to a management plan which aims to maximise conservation of both natural and cultural heritage values.

while also conserving biodiversity and facilitating appropriate visitor access. Visitor access to sensitive areas is carefully controlled, and in some areas excluded, to mitigate adverse impacts on World Heritage values.

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*. This Act is the statutory instrument for implementing Australia's obligations under a number of multilateral environmental agreements including the World Heritage Convention. 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. Substantial penalties apply for taking such an action without approval. Once a heritage place is listed, the Act provides for the preparation of management plans which set out the significant heritage aspects of the place and how the values of the site will be managed.

Importantly, this Act also aims to protect matters of national environmental significance, such as World Heritage properties, from impacts even if they originate outside the property or if the values of the property are mobile (as in fauna). It thus forms an additional layer of protection designed to protect values of World Heritage properties from external impacts. In 2007 the Willandra Lakes Region World Heritage Area was added to the National Heritage List in recognition of its national heritage significance.

The property management plan identifies issues for management, outlines strategies for responses and identifies responsible parties. Among the issues and threats to values being addressed through coordinated action are the occurrence of invasive pest species (including European rabbits and feral goats), balancing increased visitation with asset protection, controlling total grazing pressure to provide for perennial vegetation regeneration, and limiting accelerated erosion where practicable.

## Comment

There are numerous amendments required including agency names, advisory bodies and governance structure. The language used to describe the values is inconsistent with contemporary, First Nation's understanding and requires updating and improving to reflect and include the significance of the site and its values and attributes to First Nations peoples. Reviewing and modernising the attributes and OUV will also enable better planning and modelling for contemporary matters such as climate change.

## 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	Ancestral remains		×		
3.2.2	Fossil Trackway		×		
3.2.3	The lake systems	×			
3.2.4	Lunettes		×		
3.2.5	artefacts, fireplaces and middens		×		
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

the main impact on the attributes of OUV is erosion. several of the lunettes have experience considerable de-vegetation and have numerous mobile dune fields.

## 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):

- Relevant, Positive, Potential, Inside

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

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

#### 4.1.5 - Interpretative and visitation facilities

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

- Relevant, Positive, Current, Potential, 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

Interpretative and visitation facilities - the bulk of the interpretation (website and visitor centre) was completed in 2010, some of which requires updating. the website is an older format and will soon be outdated. There have been minor updates to modernise signage and interpretation around Mungo National Park including commissioning of new films to be showed at the visitor centre

### 4.2. Transportation Infrastructure

#### 4.2.1 - Ground transport infrastructure

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

- Relevant, Negative, Current, Potential, Inside, Outside

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

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

#### 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):

- Relevant, Negative, Current, Potential, Inside, Outside

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

The Arumpo road to Mungo National Park is scheduled to be surfaced. This will reduce the amount of potential impact that road works can have on the values - grading and maintain gravel and dirt tracks. It will increase the number of visitors to Mungo NP which, in turn, can increase pressure on Mungo NP and the Willandra Lakes Region.

### 4.3. Services Infrastructures

#### 4.3.1 - Water infrastructure

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

- Relevant, Positive, Potential, Inside

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

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

#### 4.3.2 - Renewable energy facilities

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

- Relevant, Positive, Current, Potential, Inside

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

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

#### 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):

- Relevant, Positive, Negative, Potential, Inside

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

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

#### 4.3.5 - Major linear utilities

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

- Relevant, Positive, Potential, Inside, Outside

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

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

#### 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

Watering points for stock are an area of known degradation from repeated treading. The individual property plans identified watering points to be relocated away from sensitive areas to reduce the impact of grazing pressure. There are proposed cell towers which can increase the safety of visitors to the National Park through enhanced communication. Currently, the only communication for visitors is a pay phone at the National Park visitor centre.

#### 4.4. Pollution

##### 4.4.1 - Pollution of marine waters

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

- Not relevant

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

##### 4.4.2 - Ground water pollution

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 ✕		✕	✕	✕		→	

##### 4.4.3 - 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						
	Impact		Origin		Trend of impact		
Impact	 Current	 Potential	 Inside	 Outside	 Decreasing	 Stable	 Increasing
 Positive ✕	✕		✕			→	
 Negative ✕	✕	✕	✕	✕		→	

##### 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

There is a mineral sands mine close to the boundary of the property. This mine will be extracting ground water that has the potential to impact on the water table. This may have negative impacts on the surface vegetation that reduces erosion. In 2019/2020 there were large dust storms the required the cancellation of public tours within the national park. Dust storms are a paradox for tourism as they are a health hazard but also a tourist attraction.

#### 4.5. Biological resource use/modification

##### 4.5.1 - Fishing/collecting aquatic resources

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

- Not relevant

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

#### 4.5.2 - Aquaculture

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

- Not relevant

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

#### 4.5.3 - Land conversion

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							

#### 4.5.4 - Livestock farming/Grazing of domesticated animals

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 ✕	✕		✕			➡	

#### 4.5.5 - Crop production

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

- Relevant, Positive, Negative, Current, Inside, Outside

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

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

#### 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):

- Relevant, Positive, Current, Inside, Outside

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

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



#### 4.5.9 - Subsistence hunting

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							

#### 4.5.10 - 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

The commencement of the Crown Land Management Act 2016 has provided the holders of Western Lands leases (70% of the properties tenure) an opportunity to convert their title for land to freehold. Administrative oversight of the land by the NSW Government will no longer occur when land is converted to freehold. However other statutory and regulatory frameworks relating to planning, environmental protection and land management considerations continue to protect the properties values.

### 4.6. Physical resource extraction

#### 4.6.1 - Mining

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

- Not relevant

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

#### 4.6.2 - Quarrying

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 ✕		✕	✕			→	

#### 4.6.3 - 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):

- Relevant, Positive, Current, Inside, Outside

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

#### 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

The frameworks that regulate the activities in this section have not changed significantly in respect to the overall management and protection of the property. No significant activities of this kind are known to have occurred on the property since the last report.

### 4.7. Local conditions affecting physical fabric

#### 4.7.1 - Wind

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

- Relevant, Negative, Current, Potential, Inside, Outside

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

#### 4.7.2 - Relative humidity

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

- Not relevant

Relevant	X Not relevant
----------	----------------

#### 4.7.3 - Temperature

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

- Not relevant

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

#### 4.7.4 - Radiation/Light

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

- Not relevant

Relevant	X Not relevant
----------	----------------

#### 4.7.5 - Dust

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

- Not relevant

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

#### 4.7.6 - Water (rain/water table)

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

- Not relevant

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

#### 4.7.7 - Pests

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

- Relevant, Negative, Current, Potential, Inside

✕ 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

Management practices and statutory requirements are utilised to minimise the risk to the property. There is no known increase in the impact of these elements/factors since the last report. This is supported by inspections conducted on Western Lands leases within the region since the last report. A rain event of 6mm can cause 24mm of erosion on the exposed lunettes. Hot temperatures impact on staffing and tourism closure to heat is common.

### 4.8. Social/Cultural uses of heritage

#### 4.8.1 - Ritual/Spiritual/Religious and associative uses

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

- Relevant, Positive, Current, Potential, Inside

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

#### 4.8.2 - Society's valuing of heritage

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

- Relevant, Positive, Current, Potential, Inside, Outside

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

#### 4.8.3 - Indigenous hunting, gathering and collecting

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

- Relevant, Positive, Current, 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):

- Relevant, Positive, Negative, Current, Potential, Inside, Outside

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

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

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

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

- Relevant, Positive, Current, Potential, Inside, Outside

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

#### 4.8.6 - Impacts of tourism/Visitation/Recreation

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

- Relevant, Positive, Negative, Current, Potential, Inside, Outside

✕ 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

#### 4.9. Other human activities

##### 4.9.1 - Illegal 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 ✕		✕	✕			→	

##### 4.9.2 - 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

Looting sites of cultural significance has been identified as a potential risk. Stone artefacts have been removed without permission. some have been returned as 'sorry rocks'. 107 ancestral remains were removed without permission between 1969-1985. As these ancestral remain are repatriated there is concern that some 'treasure hunters' will seek to find them. The original locations of the burials have already been marked on websites without consent or authorisation.

#### 4.10. Climate change and severe weather events











##### 4.10.1 - Storms

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

- Relevant, Negative, Current, 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











##### 4.10.3 - Drought

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

- Relevant, Negative, Current, 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

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

##### 4.10.5 - Changes to oceanic waters

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

- Not relevant

Relevant

✕ Not relevant

#### 4.10.6 - Temperature change

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

- Relevant, Negative, Current, 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):

- Not relevant

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

#### 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

The property is undergoing increased aridity due to changing climatic process. This will result in reduced precipitation and reduced regenerative opportunities for ground cover to reduce erosion.

#### 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):

- Not relevant

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, Potential, Inside







✕ Relevant				Not relevant			
	Impact		Origin		Trend of impact		
Impact	🔥 Current	🔥 Potential	📍 Inside	📍 Outside	↘ Decreasing	→ Stable	↗ Increasing
🟢 Positive							
🔴 Negative ✕	✕	✕	✕	✕			↗

##### 4.11.6 - Fire (wildfire)

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

- Relevant, Positive, Negative, Current, Potential, Inside, Outside

✕ 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

A decrease in total groundcover will result in an increase in erosion.

#### 4.12. Invasive/alien species or hyper-abundant species

##### 4.12.1 - Translocated species

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

- Relevant, Negative, Current, Inside, 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):

- Not relevant










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

##### 4.12.5 - Hyper-abundant species

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

- Relevant, Negative, Current, Potential, Inside, Outside

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

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

##### 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

Abundant naturally occurring species, such as Kangaroos occurs in a boom and bust pattern. This is being managed by closing down and/or fencing off artificial watering points which can contribute to hyper abundance.

#### 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):

- Relevant, Positive, Current, Inside

✕ 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):

- Relevant, Positive, Potential, Inside

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

Currently there is adequate funding for the property particularly the national park component. However more funding to better protect world heritage values would be advantageous to the property.































































































































































































































#### 4.14. Other factor(s)

##### 4.14.1 - Other factor(s)

no other factors

#### 4.15. Factors Summary Table

##### 4.15.1 - Factors Summary Table

Name	Impact			Origin		Trend
4.1 Buildings and Development						
4.1.4 Major visitor accommodation and associated infrastructure						
						
						
4.1.5 Interpretative and visitation facilities						
						
						
4.2 Transportation Infrastructure						
4.2.1 Ground transport infrastructure						
						
						
4.3 Services Infrastructures						
4.3.1 Water infrastructure						
						
						
4.3.2 Renewable energy facilities						
						
						
4.3.4 Localised utilities						
						
						
4.3.5 Major linear utilities						
						
						
4.4 Pollution						
4.4.2 Ground water pollution						
						
						
4.4.4 Air pollution						
						
						
4.5 Biological resource use/modification						
4.5.3 Land conversion						
						
						
4.5.4 Livestock farming/Grazing of domesticated animals						
						
						
4.5.5 Crop production						
						
						
4.5.8 Commercial hunting						






4.5.9 Subsistence hunting	+	⚠	⚠	⊕		→
4.6 Physical resource extraction						
4.6.2 Quarrying						
	−		⚠	⊕		→
4.6.4 Water (extraction)						
	−		⚠	⊕		→
4.7 Local conditions affecting physical fabric						
4.7.1 Wind						
	−	⚠	⚠	⊕		→
4.7.3 Temperature						
	−		⚠	⊕	↻	→
4.7.5 Dust						
	−	⚠	⚠	⊕	↻	→
4.7.6 Water (rain/water table)	+	⚠	⚠	⊕		→
	−	⚠	⚠	⊕		→
4.7.7 Pests						
	−	⚠	⚠	⊕		→
4.8 Social/Cultural uses of heritage						
4.8.1 Ritual/Spiritual/Religious and associative uses	+	⚠		⊕	↻	→
4.8.2 Society's valuing of heritage	+	⚠	⚠	⊕	↻	→
	−	⚠	⚠	⊕	↻	→
4.8.3 Indigenous hunting, gathering and collecting	+	⚠		⊕		→
4.8.4 Changes in traditional ways of life and knowledge system	+	⚠	⚠	⊕	↻	→
4.8.5 Identity, social cohesion, changes in local population and community	+	⚠		⊕	↻	→
4.8.6 Impacts of tourism/Visitation/Recreation	+	⚠	⚠	⊕	↻	→
	−	⚠	⚠	⊕	↻	→
4.9 Other human activities						
4.9.1 Illegal activities						
	−		⚠	⊕		→
4.10 Climate change and severe weather events						
4.10.1 Storms						
	−	⚠	⚠	⊕	↻	↗
4.10.3 Drought						
	−	⚠	⚠	⊕		↗
4.10.4 Desertification						
	−	⚠	⚠		↻	↗
4.10.6 Temperature change						

4.11 Sudden ecological or geological events						
4.11.5 Erosion and siltation/Deposition						
4.11.6 Fire (wildfire)						
4.12 Invasive/alien species or hyper-abundant species						
4.12.2 Invasive/Alien terrestrial species						
4.12.5 Hyper-abundant 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						
<b>Legend</b> 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
4.1.4 Major visitor accommodation and associated infrastructure							
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
<b>Impact - Impact on the attributes</b>	
✕	Insignificant
	Minor
	Significant
	Major
<b>Management response - Capacity of management to respond</b>	
	High capacity
✕	Medium capacity
	Low capacity
	No capacity and / or resources
<b>Trend - Development over the last 6 years</b>	
	Decreasing
✕	Static
	Increasing

Name	Impact	Origin	Trend
4.1.5 Interpretative and visitation facilities			
			

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

Increasing

## 4.2 Transportation Infrastructure

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

## 4.3 Services Infrastructures








Name		Impact			Origin		Trend
4.3.1 Water infrastructure							
<b>Spatial scale - Area affected by the factor</b>							
	Restricted						
	Localised						
	Extensive						
	Widespread						
<b>Temporal scale - Occurrence of the impact</b>							

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

Name	Impact			Origin		Trend
4.3.2 Renewable energy facilities						

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





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
4.3.5 Major linear utilities						

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









## 4.4 Pollution

Name	Impact	Origin	Trend
4.4.2 Ground water pollution			

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








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




Name	Impact	Origin	Trend
4.4.4 Air pollution	 		
	  	 	

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

## 4.5 Biological resource use/modification




Name	Impact	Origin	Trend
4.5.3 Land conversion	  		
<b>Spatial scale - Area affected by the factor</b>			
	Restricted		
	Localised		
✕	Extensive		

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

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

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

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

Name	Impact	Origin	Trend
4.5.5 Crop production			
			

#### 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
4.5.8 Commercial hunting			
			

#### Spatial scale - Area affected by the factor

	Restricted
✕	Localised
	Extensive


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

Name	Impact			Origin		Trend
4.5.9 Subsistence hunting						

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

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

## 4.6 Physical resource extraction

Name	Impact	Origin	Trend
4.6.2 Quarrying			
			


<b>Spatial scale - Area affected by the factor</b>	
✕	Restricted
	Localised
	Extensive
	Widespread

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

<b>Impact - Impact on the attributes</b>	
✕	Insignificant
	Minor
	Significant
	Major

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

<b>Trend - Development over the last 6 years</b>	
	Decreasing
✕	Static
	Increasing

Name	Impact	Origin	Trend
4.6.4 Water (extraction)			
			

<b>Spatial scale - Area affected by the factor</b>	
	Restricted
✕	Localised






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

#### 4.7 Local conditions affecting physical fabric

Name	Impact	Origin	Trend
4.7.1 Wind			
	⊖	🔴	🟡
		🟢	➡

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







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

Name	Impact	Origin	Trend
4.7.3 Temperature			
			  

<b>Spatial scale - Area affected by the factor</b>	
	Restricted
	Localised
	Extensive
✕	Widespread
<b>Temporal scale - Occurrence of the impact</b>	
	One off or rare
✕	Intermittent or sporadic
	Frequent
	On-going

<b>Impact - Impact on the attributes</b>	
✕	Insignificant
	Minor
	Significant
	Major

<b>Management response - Capacity of management to respond</b>	
	High capacity
✕	Medium capacity
	Low capacity
	No capacity and / or resources
<b>Trend - Development over the last 6 years</b>	
	Decreasing
✕	Static
	Increasing

Name	Impact	Origin	Trend
4.7.5 Dust			
	  	 	

<b>Spatial scale - Area affected by the factor</b>	
	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
<b>Trend - Development over the last 6 years</b>	
	Decreasing
✕	Static
	Increasing

Name	Impact	Origin	Trend
4.7.7 Pests			
	  		











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

## 4.8 Social/Cultural uses of heritage

Name	Impact	Origin	Trend
4.8.1 Ritual/Spiritual/Religious and associative uses	 	 	




<b>Spatial scale - Area affected by the factor</b>	
--	--

	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
4.8.2 Society's valuing of heritage	  	 	
	  	 	

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
<b>Trend - Development over the last 6 years</b>	
	Decreasing
✕	Static
	Increasing

Name	Impact	Origin	Trend
4.8.3 Indigenous hunting, gathering and collecting	 		






<b>Spatial scale - Area affected by the factor</b>	
	Restricted
✕	Localised
	Extensive
	Widespread

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

<b>Impact - Impact on the attributes</b>	
✕	Insignificant
	Minor
	Significant
	Major






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

<b>Trend - Development over the last 6 years</b>	
	Decreasing
✕	Static
	Increasing

Name	Impact	Origin	Trend
4.8.4 Changes in traditional ways of life and knowledge system	  	 	

<b>Spatial scale - Area affected by the factor</b>	
	Restricted

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

Name	Impact			Origin		Trend
4.8.5 Identity, social cohesion, changes in local population and community						

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

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

Name	Impact	Origin	Trend
4.8.6 Impacts of tourism/Visitation/Recreation	<div> <div>+</div> <div>👎</div> <div>👎</div> </div>	<div> <div>🌐</div> <div>🔄</div> </div>	<div> <div>→</div> </div>
	<div> <div>-</div> <div>👎</div> <div>👎</div> </div>	<div> <div>🌐</div> <div>🔄</div> </div>	<div> <div>→</div> </div>

<b>Spatial scale - Area affected by the factor</b>	
✕	Restricted
	Localised
	Extensive
	Widespread

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

<b>Impact - Impact on the attributes</b>	
✕	Insignificant
	Minor
	Significant
	Major

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

<b>Trend - Development over the last 6 years</b>	
	Decreasing
✕	Static
	Increasing






## 4.9 Other human activities

Name	Impact	Origin	Trend
4.9.1 Illegal activities	<div> <div></div> <div></div> <div></div> </div>	<div> <div></div> <div></div> </div>	<div> <div></div> </div>
	<div> <div>-</div> <div></div> <div>👎</div> </div>	<div> <div>🌐</div> <div></div> </div>	<div> <div>→</div> </div>

<b>Spatial scale - Area affected by the factor</b>	
--	--






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

#### 4.10 Climate change and severe weather events

Name	Impact			Origin		Trend
4.10.1 Storms						
						

<b>Spatial scale - Area affected by the factor</b>	
✕	Restricted
	Localised
	Extensive
	Widespread
<b>Temporal scale - Occurrence of the impact</b>	
	One off or rare
✕	Intermittent or sporadic
	Frequent
	On-going
<b>Impact - Impact on the attributes</b>	
	Insignificant
	Minor
✕	Significant

	Major
<b>Management response - Capacity of management to respond</b>	
	High capacity
✕	Medium capacity
	Low capacity
	No capacity and / or resources
<b>Trend - Development over the last 6 years</b>	
	Decreasing
	Static
✕	Increasing

Name	Impact	Origin	Trend
4.10.3 Drought			
	  		






<b>Spatial scale - Area affected by the factor</b>	
	Restricted
	Localised
	Extensive
✕	Widespread

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






<b>Impact - Impact on the attributes</b>	
	Insignificant
	Minor
✕	Significant
	Major

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

<b>Trend - Development over the last 6 years</b>	
	Decreasing
	Static
✕	Increasing

Name	Impact	Origin	Trend
4.10.4 Desertification			
	  		

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
<b>Management response - Capacity of management to respond</b>	
	High capacity
	Medium capacity
✕	Low capacity
	No capacity and / or resources
<b>Trend - Development over the last 6 years</b>	
	Decreasing
	Static
✕	Increasing

#### 4.11 Sudden ecological or geological events

Name	Impact	Origin	Trend
4.11.5 Erosion and siltation/Deposition			
			
			

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

Name	Impact	Origin	Trend
4.11.6 Fire (wildfire)			
			

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

#### 4.12 Invasive/alien species or hyper-abundant species






Name	Impact			Origin		Trend
4.12.2 Invasive/Alien terrestrial species						
<b>Spatial scale - Area affected by the factor</b>						
	Restricted					
	Localised					
✕	Extensive					
	Widespread					
<b>Temporal scale - Occurrence of the impact</b>						
	One off or rare					
	Intermittent or sporadic					
	Frequent					
✕	On-going					
<b>Impact - Impact on the attributes</b>						

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

Name	Impact			Origin	Trend
4.13.3 Governance					

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

Name	Impact	Origin	Trend
4.13.6 Human resources	  	 	
	 	 	

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

N/A

#### 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	Ancestral remains		✕		
4.18.1.2	Fossil Trackway		✕		
4.18.1.3	The lake systems	✕			
4.18.1.4	Lunettes		✕		
4.18.1.5	artefacts, fireplaces and middens		✕		



## 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 both** the management authority and 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 property has **no buffer zone** and **does not need one**

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

The property has **no known and recognised** buffer zone

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

The property has no buffer zone however potential impacts occurring from both inside and outside the property are subject to regulation under the Federal Environmental Protection and Biodiversity Conservation Act. The boundary of the property conforms to the relict lake margins and Willandra creek. Elements representing the same OUV have been identified outside the boundary on an adjacent reserve.

### 5.2. Protective Measures

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

Environment Protection & Biodiversity Conservation Act (1999): 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 action having impacts originating 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

2016 / Crown Land Management Act 2016 /  
<https://legislation.nsw.gov.au/view/html/inforce/current/act-2016-058> 2001 /

Willandra Lakes Regional Environmental Plan No 1—World Heritage Property (2001 EPI 227) under review as part of a wider State Environmental Planning Policy /  
<https://www.legislation.nsw.gov.au/view/html/inforce/current/epi-2001-0227> NSW National Park and Wildlife Act No 80 / 1974 /

#### 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?

An **adequate legal framework** for maintaining of the Outstanding Universal Value including conditions of Authenticity and/or Integrity of the World Heritage property exists **but there are some deficiencies in implementation**

#### 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?

The property has **no buffer zone**

#### 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?

An **adequate legal framework** exists for the broader setting of the World Heritage property, **but there are some deficiencies in implementation** which undermine the maintenance of the Outstanding Universal Value including conditions of Authenticity and/or Integrity of the property

#### 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

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

### 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 provincial/regional level

If 'Other', please specify

i can only tick 1 box but i would like to tick the top 6 boxes 5.3.1.1 to 5.3.1.6

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

A statutory Management Plan or zoning plan for the property.

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

Traditional ways of management recognised by local communities and other specific groups
Governance mechanisms that foster and respect traditional practices, knowledge and uses of the property
Mechanisms to promote equal participation among and within groups, including different levels of authority, local communities, indigenous people, women and men, and other specific groups
A code of practice developed by local communities or other groups
A management plan
An annual work plan or business plan
A disaster, climate or conflict risk management plan
A joint approach to management of cultural and natural heritage

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

There is currently a strategic plan of management for the whole site which needs updating. A new plan will be developed when funding is sourced. There are also several subsidiary plans of management for significant sites and areas within the Willandra Lakes Region including the statutory plan of management for Mungo National Park.

### 5.3.4 - Management Documents

#### Comment

Sustaining Willandra Plan of Management (1996), 3TTG Plan of Management (2004), Mungo National Park Plan of Management (2006), GL7 Archaeological Management Plan (2005), Joulini Property Management Plan (2008), Pest Management Plan (2013), Willandra Lakes Region, Willandra Lakes Region Rabbit Control Plan (2020).

### 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.

N/A

### 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:

N/A

### 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

N/A

### 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						X
5.3.15.5	Women						X
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					X
5.3.16.2	Local/Municipal authorities					X
5.3.16.3	Indigenous peoples					X
5.3.16.4	Landowners					X
5.3.16.5	Women					X
5.3.16.6	Youth/Children					X
5.3.16.7	Researchers					X
5.3.16.8	Local Visitors/Tourists					X
5.3.16.9	National/International tourists					X
5.3.16.10	Tourism Industry					X
5.3.16.11	Local businesses and industries					X
5.3.16.12	NGOs					X
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				X	
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)				X	
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				X	
5.3.17.4	The management system of the property integrates a human rights-based approach				X	
5.3.17.5	The management system of the property contributes to fostering inclusive local economic development, and to enhancing livelihood				X	
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	X				

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

The current strategic management plan is from 1996. A new strategic plan is scheduled to be prepared in the next few years.

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

no comments

**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 and Commonwealth Governments.

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

The available **budget is adequate** for effective management of the World Heritage property

#### 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

Funding sources are secure however the quantum of funding is not sufficient to address the management needs of such a complex property. The state of conservation report identifies total grazing pressure as a risk to attributes. On the lease hold lands, feral animal control is being undertaken exclusively on rabbits. Additional resources are needed to conduct a coordinated response to cover the national p. component. 2 staff are dedicated to the operations of the WHA to support all programs

#### 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	50 %	50 %
6.1.6.2	Women	50 %	50 %
		Total 100 %	Total 100 %

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

Human resources are **adequate** for management needs

#### 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	Good
Community participation and inclusion	Good
Risk preparedness	Good
Capacity development and education	Good
Administration	Good
Research and monitoring	Fair
Awareness raising and public information/communication	Good
Marketing and promotion	Good
Interpretation	Fair
Visitor management/tourism	Fair
Enforcement (custodians, police)	Poor

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

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

Some 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.**

N/A

**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 is in place and fully implemented; all technical skills are being transferred to those managing the property locally

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

no comments

**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 adequate

**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 considerable research but it is not directed towards 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 with local communities and some national agencies

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

There have been numerous research projects within the WHA focused on the attributes. There have been few research projects directed towards managing the OUV. There are numerous research projects in co-design with the First Nations representatives to direct the focus of research towards community and management outcomes.

**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	Good
Landowners	Good
Women	Not applicable
Youth/children	Good
Researchers	Good

Local visitors	Fair
National/international tourists	Good
Tourism industry	Good
Local businesses and industries	Poor
NGOs	Not applicable
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 planned and effective education and awareness programme for children and youth that contributes to the protection of the World Heritage property

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

Local communities
Indigenous peoples
Landowners
Youth/children
Local Visitors
National/international tourists
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	Poor
Site museum	Not needed
Information booths	Not needed
Guided tours	Good
Trails/routes	Good
Printed information materials	Fair
Online (website, social media, etc.)	Fair
Transportation facilities	Poor
Other	Not needed
If 'Other' is selected, please specify	

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

To access the property there is 88 km of gravel road. This is a barrier that moderates visitor numbers. The interpretations at the site and website are now 10 years old. Most content is still relevant although it does not reflect new approaches to interpretation at World Heritage properties

## 9. Visitor Management

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

25000 /
---------

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

Visitor surveys
-----------------

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

One to three hours

### 9.4 - Please provide the source of information

State of the Parks (SOP) which uses observation, tickets and other fee based data Visitors: 68% stay 1-3 hours, 7% overnight, 27% 2 overnight stays

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

53 / 0 / 0 / 10 / 0 / 0 /
---------------------------

#### 9.6 - Please provide the source of information

National Visitors Survey (Tourism Research Australia) Year Ended Dec 2018 breakdown of average daily visitor expenditure not collected but the field requires a numerical response. 0 was given to indicate data not available

#### 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

Some plans require review and to be updated to include recent changes in the management of visitor numbers.

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

Visitor use of the World Heritage property is **effectively managed and does not impact its Outstanding Universal Value**

#### 9.10 - Is the effectiveness of tourism management regularly monitored?

No

If a different system, please specify

State of the Parks reporting NSW NPWS

#### 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 **limited 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

Mungo NP - Commercial Tour Operations & NPWS discovery tours. Mungo Lodge resort accommodation, meals & tours.

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

Yes

If 'Yes', please specify

Local towns benefit from tourism - Mungo NP is a key attraction

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

Benefits of tourism are communicated via regional visitor centres and via the property's advisory committees. The Advisory Committee has a tourism representative whose role is to tie the properties significance and OUV into tourism master plans and education programs.

### 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 **adequate and key indicators have been defined but monitoring of the status of indicators could be improved**

#### 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

Indicators for various conservation and management programs have been developed, such as effective rabbit control and total ground cover. Indicators to monitor effectiveness of the management of OUV are yet to be identified. This is an area of current focus for the managing agencies with a number of different models under consideration.

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

World Heritage managers/coordinators and staff	Good
Local/municipal authorities	Non-existent
Local communities	Fair
Indigenous peoples	Fair
Landowners	Fair
Women	Not applicable
Researchers	Poor
Tourism industry	Non-existent
Local businesses and industry	Non-existent
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.

no comments

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

no comments

### 11. Identification of Priority Management Needs

#### 11.1 - Identification of Priority Management Needs

5.1	Boundaries and Buffer Zones	
5.1.3	The property has <b>no buffer zone</b>	
5.1.4	The property has <b>no known and recognised buffer zone</b>	
5.2	Protective Measures	
5.2.3	An <b>adequate legal framework</b> for maintaining of the Outstanding Universal Value including conditions of Authenticity and/or Integrity of the World Heritage property exists <b>but there are some deficiencies in implementation</b>	×
5.2.4	The property has <b>no buffer zone</b>	
5.2.5	An <b>adequate legal framework</b> exists for the broader setting of the World Heritage property and the buffer zone, <b>but there are some deficiencies in implementation</b> which undermine the maintenance of the Outstanding Universal Value including conditions of Authenticity and/or Integrity of the property	
5.2.6	There is <b>acceptable capacity/resources</b> 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	<b>No use</b> has been made of the Historic Urban Landscape Recommendation to develop policies and best practices for the protection of the property	
5.3.7	<b>Some use</b> has been made of the Policy Document on the Impacts of Climate Change on World Heritage Properties at the property	×
5.3.9	<b>No use</b> has been made of the Strategy for Reducing Risks from Disasters at World Heritage Properties at the property	
5.3.11	There is <b>coordination</b> between the range of administrative bodies involved in the management of the property, <b>but it could be improved</b>	
5.3.12	The management system/plan is <b>only partially adequate</b> to maintain the property's Outstanding Universal Value	×
5.3.13	The management system at the property is <b>only being partially implemented</b>	×
6.1	Funding	



6.1.10	Some use has been made of the World Heritage Strategy for Capacity Development at the World Heritage property	
7	Scientific Studies and Research Projects	
7.2	There is <b>considerable research</b> in the World Heritage property but it is <b>not directed towards management needs and/or improving understanding of Outstanding Universal Value</b>	✕
9	Visitor Management	
9.7	There is <b>a strategy</b> to manage visitors, tourism activity and its derived impacts on the World Heritage property but there are <b>some deficiencies in implementation</b>	✕
9.11	There is <b>limited cooperation</b> between those responsible for the World Heritage property and the tourism industry <b>to present the Outstanding Universal Value and increase appreciation</b>	
9.12	The presentation and interpretation of the Outstanding Universal Value of the property <b>is acceptable but improvements could be made</b>	✕
10	Monitoring	
10.1	There is <b>considerable monitoring</b> 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 <b>property is adequate and key indicators have been defined but monitoring of the status of indicators could be improved</b>	
Please select 2 more issues.		
<input checked="" type="checkbox"/> 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						
4.5.4	Livestock farming/Grazing of domesticated animals	iii and viii - Ancestral remains; Fossil Trackway; The lake systems; lunettes; artefacts, fireplaces and middens;	develop property specific plans that identify total grazing thresholds within the WHA	there is no monitoring program that assesses the total grazing pressure within the WHA	ongoing	Australian Department of Agriculture, Water and Environment, NSW National Parks and Wildlife Service and NSW Crown Lands in partnership with First Nations peoples and others with rights and interests in the property	no comment
4.7	Local conditions affecting physical fabric						
4.7.7		Pests					
4.10	Climate change and severe weather events						
4.10.3	Drought	iii and viii - Ancestral remains; Fossil Trackway; The lake systems; lunettes; artefacts, fireplaces and middens;	A climate change adaptation strategy will be prepared for the property including spatial risk assessment, identification of key areas to monitor impacts.	Dustwatch program collects data daily in the WLR and surrounding region to monitor airborne dust	ongoing and 2023	Australian Department of Agriculture, Water and Environment, NSW National Parks and Wildlife Service and NSW Crown Lands in partnership with First Nations peoples and others with rights and interests in the property	no comment
4.10.4		Desertification					
4.10.6	Temperature change	iii and viii - Ancestral remains; Fossil Trackway; The lake systems; lunettes; artefacts, fireplaces and middens;	A climate change adaptation strategy will be prepared to identify pathways for adaptive management of World Heritage values. This project will identify strategies for integration of climate change adaptation into existing management.	There is no monitoring program the assesses the impact of temperature within the WHA	ongoing	Australian Department of Agriculture, Water and Environment, NSW National Parks and Wildlife Service and NSW Crown Lands in partnership with First Nations peoples and others with rights and interests in the property	no comment
4.11	Sudden ecological or geological events						

4.11.5	Erosion and siltation/Deposition	iii and viii - Ancestral remains; Fossil Trackway; The lake systems; lunettes; artefacts, fireplaces and middens;	A climate change adaptation strategy will be prepared to identify pathways for adaptive management of World Heritage values. This project will identify strategies for integration of climate change adaptation into existing management.	There is limited capacity to monitor the effects of erosion. Targeted monitoring is taking place at a landscape level using UAV (drone) aerial imagery	ongoing	Australian Department of Agriculture, Water and Environment, NSW National Parks and Wildlife Service and NSW Crown Lands in partnership with First Nations peoples and others with rights and interests in the property	no comments
--------	----------------------------------	---	---	--	---------	---	-------------

#### 4.12 Invasive/alien species or hyper-abundant species

4.12.2	Invasive/Alien terrestrial species	iii and viii - Ancestral remains; Fossil Trackway; The lake systems; lunettes; artefacts, fireplaces and middens;	A pest Management plan has been developed by NSW Local Lands Service that outlines the roles and responsibilities of relevant agencies and stakeholders	Project monitoring takes place via spot light transects to capture numbers p/km of pest species in control areas aerial UAV monitoring plots have also been established to monitor total grazing pressure	2023	Australian Department of Agriculture, Water and Environment, NSW National Parks and Wildlife Service and NSW Crown Lands in partnership with First Nations peoples and others with rights and interests in the property	no comment
--------	------------------------------------	---	---	---	------	---	------------

4.12.5		Hyper-abundant species					
--------	--	------------------------	--	--	--	--	--

#### 4.13 Management and institutional factors

4.13.5	Financial resources	iii and viii - Ancestral remains; Fossil Trackway; The lake systems; lunettes; artefacts, fireplaces and middens;	Identify key funding requirements for the WHA and apply for funding as opportunities arise	There are insufficient financial resources to monitor key attributes	ongoing	Australian Department of Agriculture, Water and Environment, NSW National Parks and Wildlife Service and NSW Crown Lands in partnership with First Nations peoples and others with rights and interests in the property	no comment
--------	---------------------	---	--	--	---------	---	------------

4.13.6		Human resources					
--------	--	-----------------	--	--	--	--	--

Question not completed

## 12.2. Summary - Management Needs

### 12.2.1 - Summary - Management Needs

5.2	Protective Measures				
		Actions	Timeframe	Lead agency (and others involved)	More info / comment
5.2.3	An <b>adequate legal framework</b> for maintaining of the Outstanding Universal Value including conditions of Authenticity and/or Integrity of the World Heritage property exists <b>but there are some deficiencies in implementation</b>	A new strategic plan is required and scheduled for commencement when funds become available. The EPBC Act which protects the values of the property from impacts both inside and outside the property and so a buffer zone is not required	Completion of new strategic management plan is scheduled by 2023/2024	Australian Department of Agriculture, Water and Environment, NSW National Parks and Wildlife Service and NSW Crown Lands in partnership with First Nations peoples and others with rights and interests in the property.	no comment

#### 5.3 Management System/Management Plan

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	Prepare a climate change adaptation plan for the property, including risk assessment and strategic plan for the conservation of World Heritage values. Incorporate this plan into the management system of the property.	2023	Australian Department of Agriculture, Water and Environment, NSW National Parks and Wildlife Service and NSW Crown Lands in partnership with First Nations peoples and others with rights and interests in the property.	Broad assessments have been completed that review the efficacy of infrastructure on leasehold lands in curbing loss of total ground cover. Further research and spatial analyses are needed to identify future management options.
5.3.12	The management system/plan is <b>only partially adequate</b> to maintain the property's Outstanding Universal Value	The current Plan of Management is 25 years old and requires updating. Once updated, update reserve plan of management based on risk assessment, to deliver priority actions to conserve World Heritage values.	2023	Australian Department of Agriculture, Water and Environment, NSW National Parks and Wildlife Service and NSW Crown Lands in partnership with First Nations peoples and others with rights and interests in the property.	There are no strategies in the current plan that identify and mitigate the impact of climate change. Further resources and research are needed to understand and address the compounding threats of erosion and total grazing pressure.
5.3.13	The management system at the property is <b>only being partially implemented</b>	Establish World Heritage program and provide additional funding to address threats and enhance community appreciation of World Heritage values and participation in management.	2022	Australian Department of Agriculture, Water and Environment, NSW National Parks and Wildlife Service and NSW Crown Lands in partnership with First Nations peoples and others with rights and interests in the property.	no comment
6.1	<b>Funding</b>				
6.1.7		There is 1 permanent staff member to implement on ground monitoring programs for World Heritage attributes within the 330,000 hectare area. Communicate the need for additional dedicated staff.	ongoing	Australian Department of Agriculture, Water and Environment, NSW National Parks and Wildlife Service and NSW Crown Lands in partnership with First Nations peoples and others with rights and interests in the property.	there are 2 dedicated staff, 1 ongoing to survey and monitor the 330,000 hectares of the WLR and its World Heritage attributes.. Additional staff are required to implement a systematic and standard monitoring program
7	<b>Scientific Studies and Research Projects</b>				
7.2	There is <b>considerable research</b> in the World Heritage property but it is <b>not directed towards management needs and/or improving understanding of Outstanding Universal Value</b>	Develop and implement a research strategy and prospectus to support a comprehensive, integrated programme of research, which is relevant to management needs and improving understanding of Outstanding Universal Value.	2022	Australian Department of Agriculture, Water and Environment, NSW National Parks and Wildlife Service and NSW Crown Lands in partnership with First Nations peoples and others with rights and interests in the property.	Management effectiveness can be improved by developing targeted research partnerships to encourage research focused on improving understanding of World Heritage values and how best to conserve and manage attributes and mitigate threats.
9	<b>Visitor Management</b>				
9.7	There is a <b>strategy</b> to manage visitors, tourism activity and its derived impacts on the World Heritage property but there are <b>some deficiencies in implementation</b>	Strategies are adapted and updated on an 'as needs' basis. Strategies are in constant review however, all will be reviewed and updated when the Mungo National Park Plan of Management is updated. There is no current timeframe to update this document	ongoing	Australian Department of Agriculture, Water and Environment, NSW National Parks and Wildlife Service and NSW Crown Lands in partnership with First Nations peoples and others with rights and interests in the property.	no comments
9.12	The presentation and interpretation of the Outstanding Universal Value of the property is <b>acceptable but improvements could be made</b>	Finalise and implement an overarching Interpretation Plan that is people centred and co-designed which includes, through a range of media, objectives to enhance access to information about natural and cultural values, consistent message and branding	2023	Australian Department of Agriculture, Water and Environment, NSW National Parks and Wildlife Service and NSW Crown Lands in partnership with First Nations peoples and others with rights and interests in the property.	no comment
10	<b>Monitoring</b>				

10.1	There is <b>considerable monitoring</b> at the World Heritage property but it is not directed towards management needs and/or improving understanding of Outstanding Universal Value	A monitoring plan will be developed to monitor the key attributes of OUV	2023	Australian Department of Agriculture, Water and Environment, NSW National Parks and Wildlife Service and NSW Crown Lands in partnership with First Nations peoples and others with rights and interests in the property.	The implementation of a revised, cost-effective, contemporary monitoring strategy that focuses on indicators and involves community participation and current technology, will support a risk management approach
------	--	--	------	--	---

#### 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?

The Authenticity of the World Heritage property **has been preserved**

#### 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 is **intact**

#### 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.

Overall, the properties authenticity and integrity are intact. There are some concerns regarding the future of cross-tenure governance and management, as it relates to private leasehold lands however these will be addressed during the development and implementation of the new Strategic Management Plan

### 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	Positive
Management effectiveness	Positive
Quality of life for local communities and indigenous peoples	Positive
Recognition	Very positive
Education	Very positive
Infrastructure development	Very positive
Funding for the property	Positive
International cooperation	Positive
Political support for conservation	No impact
Legal/Policy framework	Positive
Advocacy	Positive
Institutional coordination	Not applicable
Security	Positive
Gender equality	Not applicable
Provision of ecosystem services/ benefits to local communities	Very 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

The property has been implementing the 1996 Strategic Plan along with subsidiary plans to develop interpretation, and site specific monitoring. National Parks and Wildlife Service has been partnering with NGOs to develop education programs and encouraging new programs to assist in promoting the values to the next generation. A new research and education centre within the WHA is in development.

## 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

The Willandra Lakes Region Aboriginal Advisory Group has been developing a Research Code of Practice. The code of practice will provide a clear path to ethical and rights-based research in the Willandra Lakes Region and ensure principles of cultural safety have been met.

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

Management
Governance
Capacity Building

## 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?

The World Heritage Convention
The concept of Outstanding Universal Value
The property's Outstanding Universal Value
The concept of Integrity and/or Authenticity
The property's Integrity and/or Authenticity
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	Not needed
Site Managers	Not needed
UNESCO World Heritage Centre	Not needed
Advisory Bodies (ICOMOS, IUCN, ICCROM)	Not needed

### 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

no comments

## 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
Responsible persons for local designated sites under other international conventions/ programmes
Staff from other World Heritage properties
Local communities
Indigenous people

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

Gender balance is explicitly considered and effectively implemented in the process.

**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**

5 / 70 /

**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?**

Little of the 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**

It would be helpful to have additional options regarding how a positive/negative factor is trending. In addition to: increasing, stable, and decreasing it would be beneficial to add: insufficient data, or trend unknown. There is also a glitch with the priority list in Section 11.1 that generates the detailed options for 12.2. each time the user logs in, the selected 10 priority management needs reshuffles and randomises which impacts the list in 12.2 that require additional information.

**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	Not applicable
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	Not applicable
State Party Representative (national Focal Point)	Fair
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?**

Not applicable (i.e. I did not use these resources)

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

n/a

**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**

- **Map(s)**

Reason for update: The World Heritage boundary is correct. The map will require updating as the Travelling Stock Routes (TSR) have now been incorporated into Mungo National Park

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

Reason for update: There are numerous amendments required including agency names, advisory bodies and governance structure. The language used to describe the values is inconsistent with contemporary, First Nation's understanding and requires updating and improving to reflect and include the significance of the site and its values and attributes to First Nations peoples. Reviewing and modernising the attributes and OUV will also enable better planning and modelling for contemporary matters such as climate change.

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.**