



Murujuga Cultural Landscape

Strategic Management Framework

Ngaayintharri Gumawarni Ngurrangga

We all come together for Country



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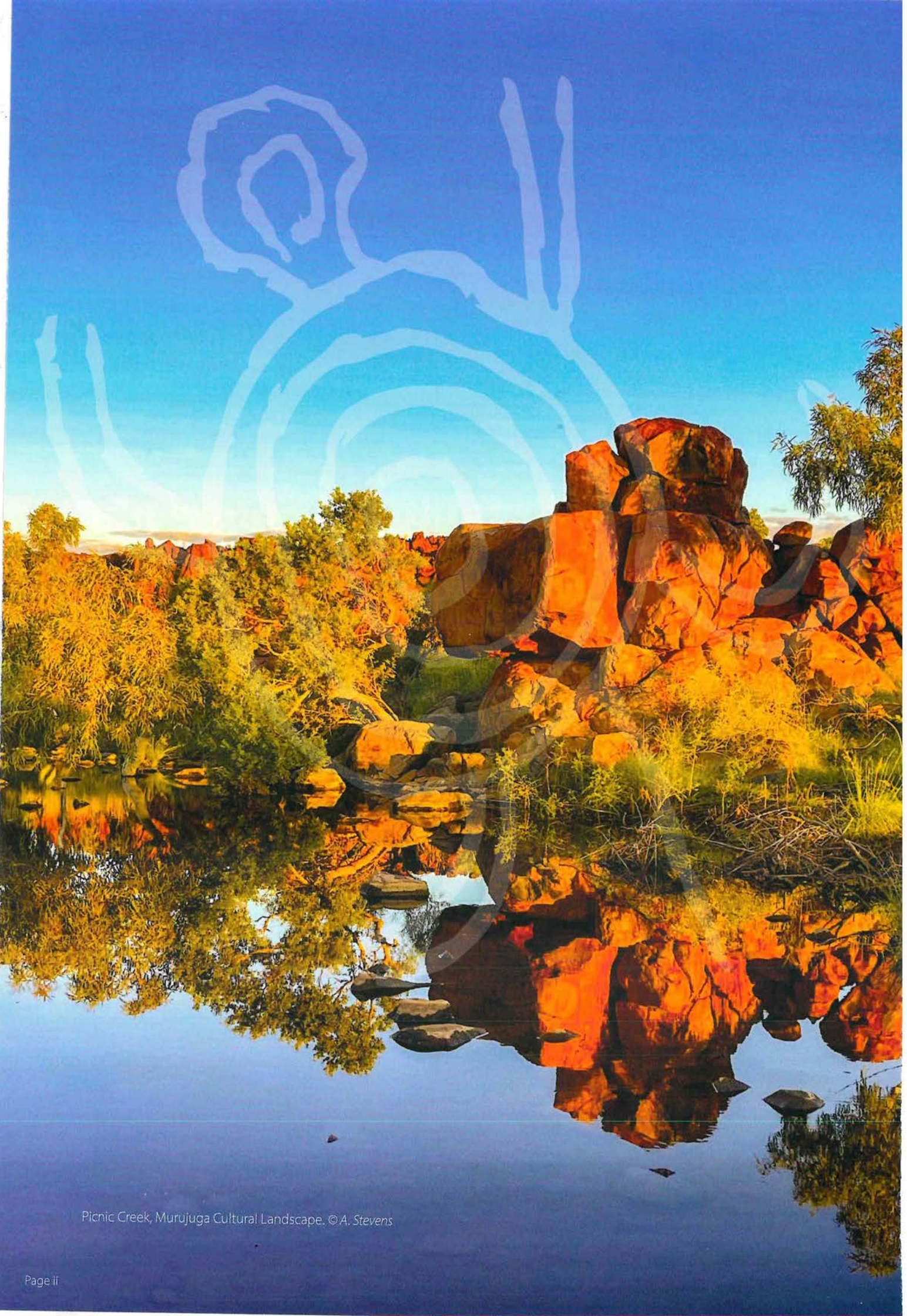
Murujuga Cultural Landscape. © A. Stevens

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Picnic Creek, Murujuga Cultural Landscape. © A. Stevens

Murujuga Aboriginal Corporation and Ministers' Message

The **Murujuga Cultural Landscape**, located in the north-west of Western Australia, is an outstanding example of a continuing cultural landscape. Comprising a system of rocky gullies, hills and islands that extend over almost 100,000 hectares, this deeply storied landscape has been home to the Traditional Owners and Custodians, the Ngarda-Ngarli, since the beginning of time. It is imbued with spiritual and cultural history, traditions and knowledge expressed through a rich assemblage of tangible and intangible cultural attributes, including one of the densest and most diverse collections of petroglyphs in the world.

Ngarda-Ngarli have cultural responsibility for the protection and management of the **Murujuga Cultural Landscape**. Through the practice of Law, they continue to work together to share their traditions and knowledge, continuing tens of thousands of years of land and sea management. Through the Murujuga Aboriginal Corporation, Ngarda-Ngarli now also have a legislative role in managing the **Murujuga Cultural Landscape**.

As a State Party to the *Convention Concerning the Protection of the World Cultural and Natural Heritage*, the Australian Government ensures that effective and active measures are taken to protect, conserve, present and transmit the Outstanding Universal Value of Australia's World Heritage properties. These obligations are met through cooperative and legislative arrangements between the Australian Government, state and territory governments, local government, and other landowners/managers.

The Western Australian Government is committed in its responsibility for the day-to-day management of the **Murujuga Cultural Landscape**, in partnership

with the Murujuga Aboriginal Corporation. Western Australia's comprehensive suite of legislation, policies, and programs supplements Ngarda-Ngarli traditional customary practices and management and supports the obligations that come with being recognised as a World Heritage property.

In partnership with the Murujuga Aboriginal Corporation, the Australian and Western Australian governments will work with local government, landowners/managers and stakeholders to protect, conserve and present the **Murujuga Cultural Landscape** for future generations.

The *Murujuga Cultural Landscape Strategic Management Framework* sets out the measures in place to protect and manage the **Murujuga Cultural Landscape**. The framework is based on a tiered model of responsibility comprising:

- Ngarda-Ngarli customary knowledge and practices;
- national, state and local legislation;
- joint management agreements; and
- statutory management plans.

The *Murujuga Cultural Landscape Strategic Management Framework* ensures a consistent, coordinated and collaborative management approach across all parts of the **Murujuga Cultural Landscape**.

Our endorsement of this framework demonstrates the strong multilateral commitment to the management of the **Murujuga Cultural Landscape** and reflects the Ngarda-Ngarli philosophy of Ngaayinthaari Gumawarni Ngurrangga (We all come together for Country).



Mr Peter Jeffries
Chief Executive Officer
Murujuga Aboriginal Corporation



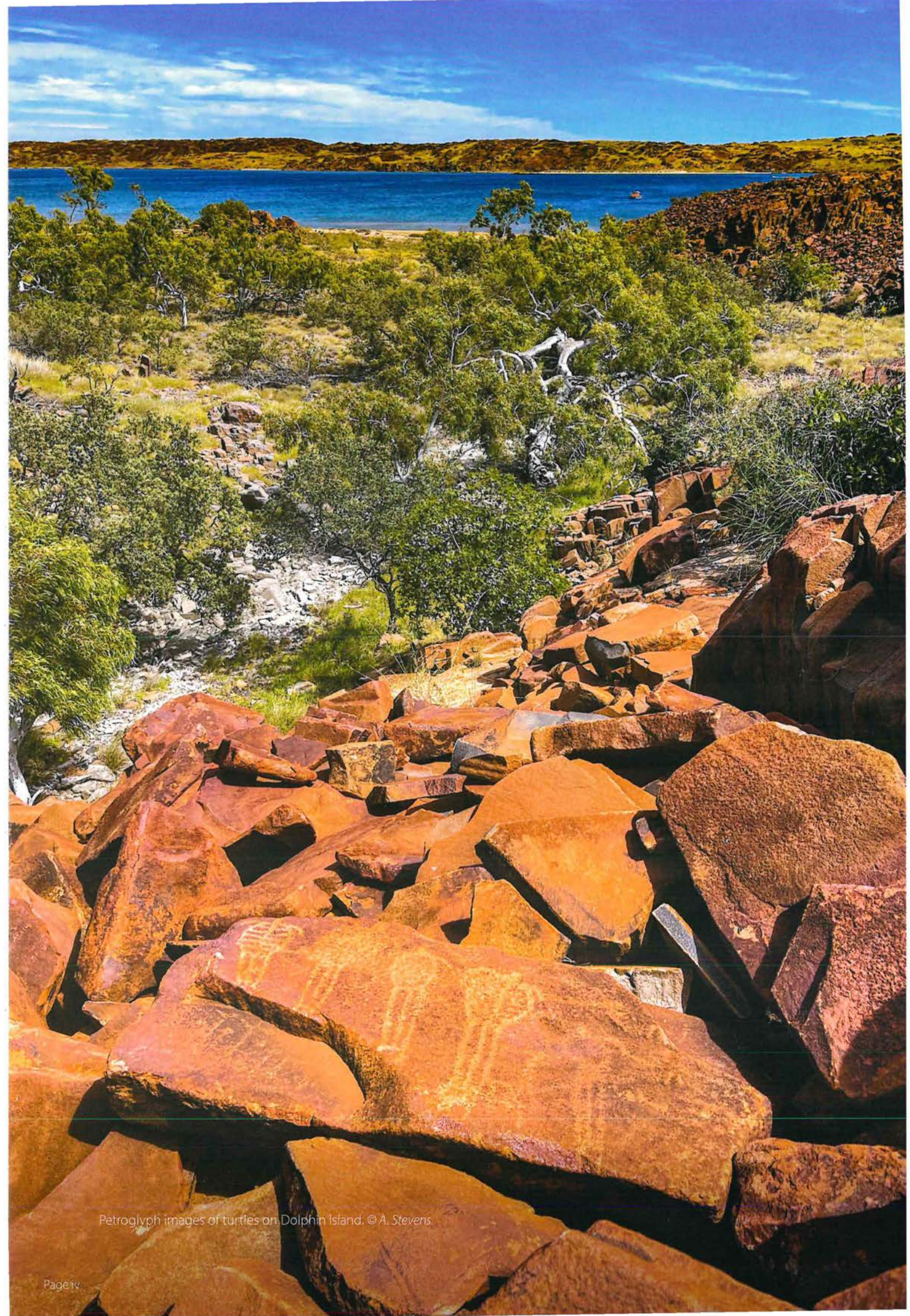
Hon Reece Whitby MLA
Western Australian Minister
for Environment



Hon Tanya Plibersek MP
Australian Government Minister
for the Environment; Water



Hon Dr Tony Buti MLA
Western Australian Minister
for Aboriginal Affairs



Petroglyph images of turtles on Dolphin Island. © A. Stevens

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Introduction

Murujuga is the traditional Country of the Yaburara people, located in the Pilbara region of Western Australia. When the Traditional Owners and Custodians, the Ngarda-Ngarliⁱ, talk about Murujuga, they talk about Land and Sea Country, traditionally known as Ngurra. The Ngurra has been home to Ngarda-Ngarli since the world was soft; the beginning of time.

Ngarda-Ngarli retain strong cultural associations with Ngurra. Beliefs, knowledge and practices have been passed on from the Ancestral Beings through generations by the Burndud song cycle, the practice of Law, through creation stories and language, and the petroglyphs. It is this Law that determines how Ngurra must be cared for, and how to keep people culturally safe while doing so.

We are Ngarda-Ngarli, the Aboriginal people of this Country, and today as always we are caring for Murujuga. This is what we have to do, it is a responsibility we inherit from our Ancestors and bequeath to our children. Our vision is that all Murujuga Land and Sea Country will be forever cared for under the leadership of Ngarda-Ngarli, just as it has been for thousands of generations.¹

The nominated property, known as the **Murujuga Cultural Landscape**, covers an area of area of 99,881 hectares. It is a deeply storied landscape containing a rich assemblage of tangible and intangible cultural attributes, including one of the densest and most diverse collections of petroglyphs in the world, that attest to a long and continuing presence, and rich cultural connections between Ngarda-Ngarli and Ngurra. The **Murujuga Cultural Landscape** consists of 74% of the Burrup Peninsula, 42 of the surrounding islands of the Dampier Archipelago and intertidal and underwater areas between some islands (Map 1). Around 19% of the land within the nominated property has a high level of statutory protection as part of Western Australia's conservation estate.

The Aboriginal cultural values of Murujuga have been afforded additional statutory protection under the Australian Government's *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) through the inclusion of the Dampier Archipelago (including Burrup Peninsula) to Australia's National Heritage List in 2007. The EPBC Act is one of the strongest environmental laws in the world. As a National Heritage place, the area is considered a 'matter of national environmental significance' and is subject to the requirements for protection, conservation and management as set out in the EPBC Act. If the **Murujuga Cultural Landscape** is inscribed on the World Heritage List, it will also become a declared World Heritage property, receiving additional protection under the World Heritage provisions of the EPBC Act.

ⁱ Ngarda-Ngarli is a collective term for the Traditional Owners and Custodians who look after Murujuga today. They include the Ngarluma, Yindjibarndi, Yaburara, Mardudhunera and Wong-Goo-Tt-Oo groups. Ngarda-Ngarli acknowledge, however, that Murujuga was the land of the Yaburara people who lived in the area for at least 50,000 years until the devastating consequences of European settlement decimated their numbers and required the coming together of neighbouring groups to protect the Lore and culture of this significant place.

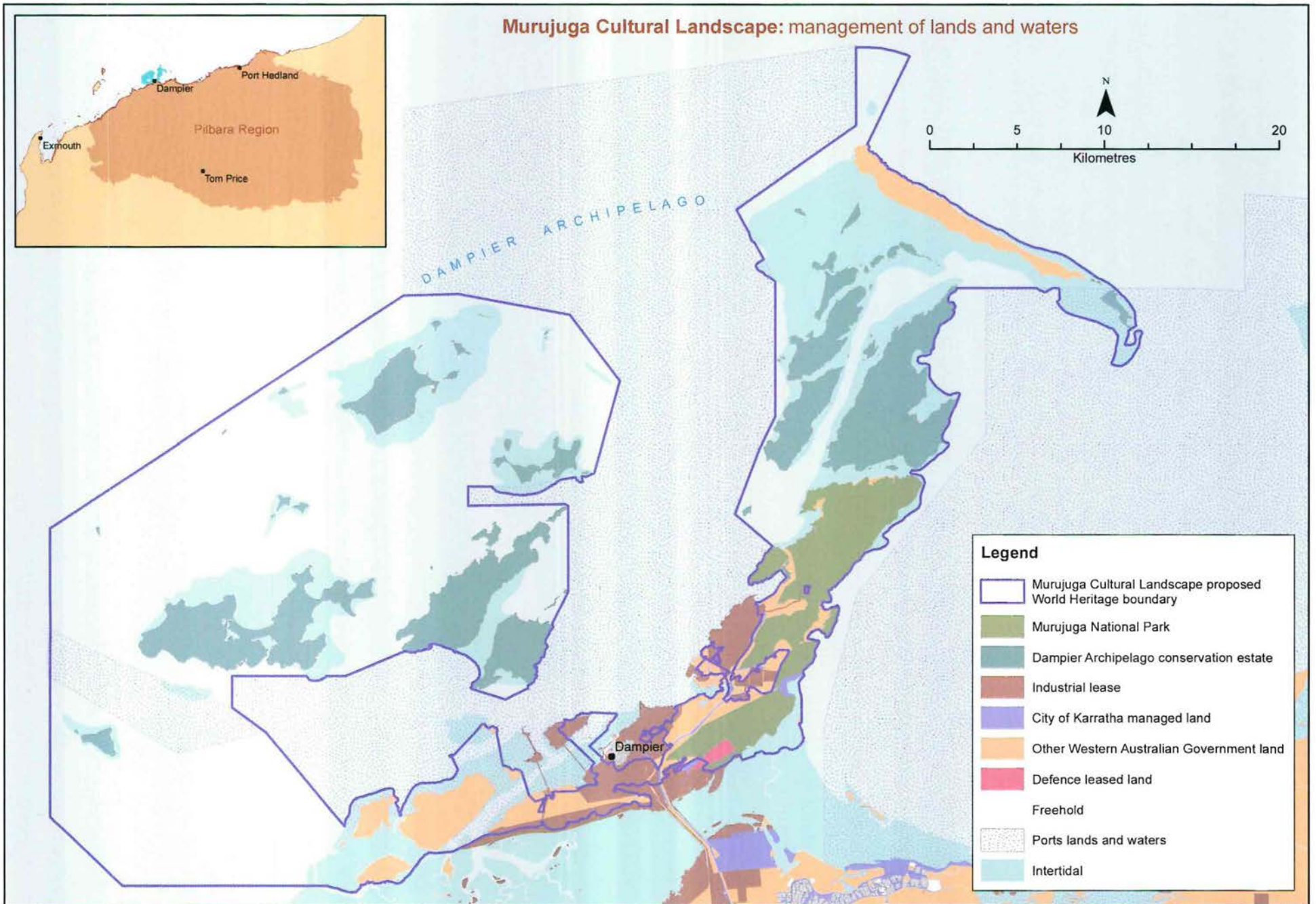
World Heritage listing is the highest level of international recognition that may be afforded to a place, acknowledging its Outstanding Universal Value and importance to all humankind. The Australian Government is a State Party to the *Convention Concerning the Protection of the World Cultural and Natural Heritage* (the World Heritage Convention). In nominating the **Murujuga Cultural Landscape** for listing, the Australian Government, on behalf of Ngarda-Ngarli and the Australian people, accepts its obligations to ensure the identification, protection, conservation, presentation and transmission to future generations of the possible World Heritage values of the property. The Australian Government will work collaboratively with the Murujuga Aboriginal Corporation and the Western Australian Government to meet the obligations of the World Heritage Convention.

The Australian and Western Australian governments have overarching responsibility for the legislative and governance arrangements of the **Murujuga Cultural Landscape**, working in partnership with the Murujuga Aboriginal Corporation and landowners/managers to ensure there is a coordinated and collaborative management approach across all parts of the nominated property. The day-to-day management of specific parts of the nominated property continue to be the responsibility of appropriate government agencies, and landowners/managers. The community, industry and visitors also play an important role in stewardship of the **Murujuga Cultural Landscape**. These joint and cooperative management arrangements are critically important to the ongoing protection, management and promotion of the nominated property.



Hearson Cove, Murujuga Cultural Landscape. © A. Stevens

Map 1: The Murujuga Cultural Landscape boundary and associated land ownership and management



Purpose of the strategic management framework

The *Murujuga Cultural Landscape Strategic Management Framework* establishes the overarching framework for the protection, management and monitoring across the **Murujuga Cultural Landscape**, reflecting the Ngarda-Ngarli philosophy of Ngaayintharri Gumawarni Ngurrangga (We all come together for Country). The framework has been developed to support effective integration across the various management plans and joint management agreements, policies, strategies and programs, so there is consistent and holistic protection of the international, national, state and local values of the nominated property.

This strategic management framework has been prepared to complement existing legislation, management regimes and governance arrangements and to ensure that Australia's responsibilities under the World Heritage Convention can be met. It sets out how the management system for the **Murujuga Cultural Landscape**, as described in the World Heritage nomination dossier, will be delivered, through an appropriate suite of complementary and cooperative arrangements for the ongoing protection, conservation, presentation and transmission of the potential Outstanding Universal Value of the **Murujuga Cultural Landscape**.

By agreeing to the content of this document, the Australian and Western Australian governments and the Murujuga Aboriginal Corporation have made a commitment to abide by its principles and to implement the outlined strategies.

World Heritage

World Heritage Convention

The World Heritage Convention was established under the auspices of the United Nations in 1972. It aims to promote cooperation among nations to protect the world's natural and cultural heritage. Australia's ratification of the World Heritage Convention in 1974 made it one of the first countries to commit to the identification, protection, conservation, presentation, and transmission to future generations of the Outstanding Universal Value of World Heritage sites.

The World Heritage Convention is administered by the World Heritage Committee, which is made up of 21 nations elected from the signatories to the World Heritage Convention. A list of properties with Outstanding Universal Value has been established under the World Heritage Convention. Only the national government of a country party to the World Heritage Convention (the State Party) may nominate an area or site within its area of jurisdiction for World Heritage listing. The Australian Government works in close cooperation with state and territory governments, local government, Traditional Owners and Custodians, property owners and site managers to ensure it meets its international obligations. The roles and responsibilities of different levels of government in the protection of World Heritage properties in Australia are set out in the *Australian World Heritage Intergovernmental Agreement 2009*. There are 20 World Heritage properties in Australia and 1154 throughout the world at the time of publication of this document.

To be included on the World Heritage List, a nominated area or site must demonstrate the three pillars of Outstanding Universal Value by meeting at least one of ten specified criteria (see: <https://whc.unesco.org/en/criteria/>) and the required conditions of integrity and authenticity (for cultural World Heritage properties), and protection and management. The **Murujuga Cultural Landscape** has been nominated under criteria (i), (iii) and (v) of the World Heritage Convention described in Section 3 of the nomination dossier.

Ownership and control

Approximately 18,706 hectares of the nominated property is made up of Western Australian conservation estate, jointly managed by the Western Australian Government and the Murujuga Aboriginal Corporation (see Joint Management Section). This includes the Murujuga National Park, which is owned in freehold by the Murujuga Aboriginal Corporation, and jointly managed by the Murujuga Aboriginal Corporation and

Below Murujuga Cultural Landscape. *Caroline Mathers © Centre for Rock Art Research and Management*



the Western Australian Department of Biodiversity, Conservation and Attractions (DBCA). Twenty-eight of the islands of the Dampier Archipelago, which are vested in the Western Australian Conservation and Parks Commission, are also jointly managed by DBCA and the Murujuga Aboriginal Corporation.

The **Murujuga Cultural Landscape** also consists of 1360 hectares of industrial lands, including industrial leased areas. A further 5452 hectares is other Western Australian Crown land including unallocated Crown land and other Crown reserves. The City of Karratha manages 166 hectares and a further 6289 hectares is comprised of ports lands and waters. The Australian Department of Defence leases 128 hectares, and 67,780 hectares is Dampier Archipelago waters.

World Heritage listing does not affect ownership rights or control of the **Murujuga Cultural Landscape**. In Australia, individual World Heritage properties remain under relevant Commonwealth, state, and private ownership. As a signatory to the World Heritage Convention, the Australian Government has an international obligation to protect, conserve, present and transmit to future generations the Outstanding Universal Value of the nominated property, if it is inscribed onto the World Heritage List. The Australian Government Department of Climate Change, Energy, the Environment and Water is responsible for leading and coordinating all matters concerning World Heritage in Australia. This includes overseeing the development of World Heritage nominations, coordinating reporting requirements, advising, and monitoring the implementation of the *Operational Guidelines for the Implementation of the World Heritage Convention* (the Operational Guidelines), encouraging international engagement and promotion of the World Heritage program in Australia and abroad, and facilitating collaboration within Australia's network of World Heritage properties.

The Australian World Heritage Focal Point within the Department of Climate Change, Energy, the Environment and Water is the conduit for all official communication between the Australian Government and the international World Heritage system, particularly the World Heritage Centre. The Focal Point coordinates Australia's input for World Heritage periodic reporting, with input from property managers.

The Conservation and Parks Commission, a statutory authority under the Western Australian *Conservation and Land Management Act 1984* (CALM Act), is the vesting body for the islands of the Dampier Archipelago included within the conservation estate. The Conservation and Parks Commission acts as an independent community steward and government advisor for the protection of Western Australia's conservation estate, while fostering its appreciation and sustainable use.

DBCA is the Western Australian Government agency with primary responsibility for the joint management of the conservation estate, on behalf of the Conservation and Parks Commission. There are various other Western Australian Government agencies working to collaboratively manage and protect the nominated property, including the Department of Water and Environmental Regulation, the Department of Planning, Lands and Heritage, DevelopmentWA and local government entities such as the Pilbara Development Commission and City of Karratha.

The Murujuga Aboriginal Corporation and Western Australian Government agencies, led by DBCA, will have the overarching management coordination role for the **Murujuga Cultural Landscape**, and the main point of contact for the Australian Government and Australian World Heritage Focal Point. They will work cooperatively with other landowners/managers to share and collate information and develop appropriate management plans and monitoring programs for the benefit of the **Murujuga Cultural Landscape**.



Management obligations for World Heritage properties

The Australian Government, with its state and territory government partners, manages Australia's World Heritage properties in accordance with the duties and obligations of State Parties, and as set out in articles 4 and 5 of the World Heritage Convention.

Article 4 of the World Heritage Convention states:

Each State Party to this Convention recognizes that the duty of ensuring the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage referred to in Articles 1 and 2 and situated on its territory, belongs primarily to that State. It will do all it can to this end, to the utmost of its own resources and, where appropriate, with any international assistance and co-operation, in particular, financial, artistic, scientific and technical, which it may be able to obtain.

Article 5 of the World Heritage Convention states that:

To ensure that effective and active measures are taken for the protection, conservation and presentation of the cultural and natural heritage situated on its territory, each State Party to this Convention shall endeavour, in so far as possible, and as appropriate for each country:

- to adopt a general policy which aims to give the cultural and natural heritage a function in the life of the community and to integrate the protection of that heritage into comprehensive planning programmes;
- to set up within its territories, where such services do not exist, one or more services for the protection, conservation and presentation of the cultural and natural heritage with an appropriate staff and possessing the means to discharge their functions;
- to develop scientific and technical studies and research and to work out such operating methods as will make the State capable of counteracting the dangers that threaten its cultural or natural heritage;
- to take the appropriate legal, scientific, technical, administrative and financial measures necessary for the identification, protection, conservation, presentation and rehabilitation of this heritage; and
- to foster the establishment or development of national or regional centres for training in the protection, conservation and presentation of the cultural and natural heritage and to encourage scientific research in this field.

The Operational Guidelines provide guidance regarding the requirement for, and purpose of, an appropriate management system for each nominated property, to ensure effective protection for present and future generations. While UNESCO does not determine the management of listed properties, it requires periodic reporting about the state of conservation of World Heritage properties and can liaise with State Parties regarding potential concerns. Under the Operational Guidelines, the World Heritage Committee also invites

State Parties to advise of their intention to undertake or authorise any major constructions or restorations that may affect the Outstanding Universal Value of a property. The World Heritage Committee may then be able to assist in identifying appropriate solutions to ensure the preservation of the property's Outstanding Universal Value.

Outstanding Universal Value

The **Murujuga Cultural Landscape** has been home to the Ngarda-Ngarli since the beginning of time, with archaeological records dating this period to the last 50,000 years. The potential Outstanding Universal Value of the **Murujuga Cultural Landscape** is expressed in a series of interconnected tangible and intangible cultural attributes. The **Murujuga Cultural Landscape** is patterned by Lore. Stories, jinna (known across Australia as songlines or dreaming tracks), cultural knowledge and the practice of Law are reflected in petroglyph motifs, stone structures, a complex system of land and sea uses, and significant spiritual places.

World Heritage criteria

The **Murujuga Cultural Landscape** has been nominated for inscription on the World Heritage List under criteria (i), (iii) and (v). The potential World Heritage values are outlined below.

Criterion (i) represent a masterpiece of human creative genius

The petroglyphs of the **Murujuga Cultural Landscape** are an extensive collection of creative works, an artistic achievement assembled over 50,000 years. The creative genius of Ngarda-Ngarli ancestors is clear both in the artistic quality of artworks and the placement of these artworks within the landscape. The accumulation of an estimated one to two million artworks etched into the rocks along the valleys, ridgelines, hill slopes and waterholes of this landscape since the late Pleistocene has significant aesthetic effect.

The petroglyphs of the **Murujuga Cultural Landscape** are visually outstanding, have been produced with technical skill, and represent multiple phases in the development of regional and local styles. The petroglyphs exist in very deliberate spatial relations established by deep cultural connections between people and landscape. Their placement and content convey an encyclopedia of cultural knowledge. The Murujuga petroglyphs are a manifestation of creative genius, inscribed in the landscape since deep time.

Criterion (iii) bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared

The **Murujuga Cultural Landscape** bears testimony to the living cultural traditions of Ngarda-Ngarli. These traditions consist of Ngarda-Ngarli knowledge, Lore, Law and cultural practices, expressed through the cultural landscape and in the extensive and diverse rock art assemblage. Ngarda-Ngarli understand the landscape and their place within it according to these cultural traditions, perpetuating a spiritual interrelationship between people and landscape that is at least 50,000 years old.

For Ngarda-Ngarli the cultural heritage of Murujuga is not a relic of the past. The stories, the resources and spirit of the land are alive and as important today as the people are themselves. The **Murujuga Cultural Landscape**, the petroglyphs, stone structures and the living expression of Ngarda-Ngarli cultural beliefs all provide testimony to the potential Outstanding Universal Value of a cultural tradition which is living.

Criterion (v) an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture, or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change

The **Murujuga Cultural Landscape** is exemplary of the combined works of nature and humankind, with the long and intimate relationships between Ngarda-Ngarli and the landscape evident in the archaeological record of occupation, contemporary knowledge of land and sea use, as well as being illustrated in the petroglyphs. This material evidence, combined with the stories Ngarda-Ngarli tell, demonstrates continued use of this landscape through millennia, including periods of significant environmental and climatic change. The cultural landscape includes submerged heritage sites, where artefacts found under the water provide evidence of occupation when sea levels were much lower. Jinna continue to be sung for places within this now-submerged landscape. Living cultural practices, in combination with the petroglyphs, stone structures and natural landscape, are evidence of long-term, adaptive human use of land and sea and the continuity of human settlement and occupation of the **Murujuga Cultural Landscape** since deep time.

Integrity

The **Murujuga Cultural Landscape** is an intact and representative example of one of the most significant concentrations of human artistic creativity and continuous human interaction with a dynamic land and sea scape in the world. All the attributes that convey the property's potential Outstanding Universal Value are within the proposed boundary and in a good state of conservation. The attributes include the tangible heritage of the petroglyphs, landforms, stone structures and archaeological sites, as well as intangible spiritually and culturally significant aspects of the landscape. Significant features are in good condition and the impact of deterioration processes are controlled. Within the proposed World Heritage boundary, the art assemblage is whole and intact, the positioning of petroglyphs within the landscape has not been altered and individual petroglyphs remain in-situ.

Authenticity

The potential Outstanding Universal Value of the **Murujuga Cultural Landscape** is truthfully and credibly expressed in the petroglyphs, traditional uses of the land and sea scape, and the living cultural practices of Ngarda-Ngarli. The petroglyphs' design and substance demonstrate authenticity of the traditions and cultural connections associated with the cultural landscape. Within Ngarda-Ngarli communities, Elders work to sustain these cultural traditions to ensure intergenerational transmission and continuity in caring for the **Murujuga Cultural Landscape**. Community persistence to retain languages, gather information related to Murujuga and to transmit traditional knowledge has strengthened the authenticity of the landscape.

Protection and management

The nominated property is comprehensively managed and protected under a system comprising Ngarda-Ngarli customary knowledge and practices, Australian and Western Australian legislation, joint management agreements, statutory management plans and complementary policies, strategies and programs, consolidated and synthesised into this framework (see Figure 1).

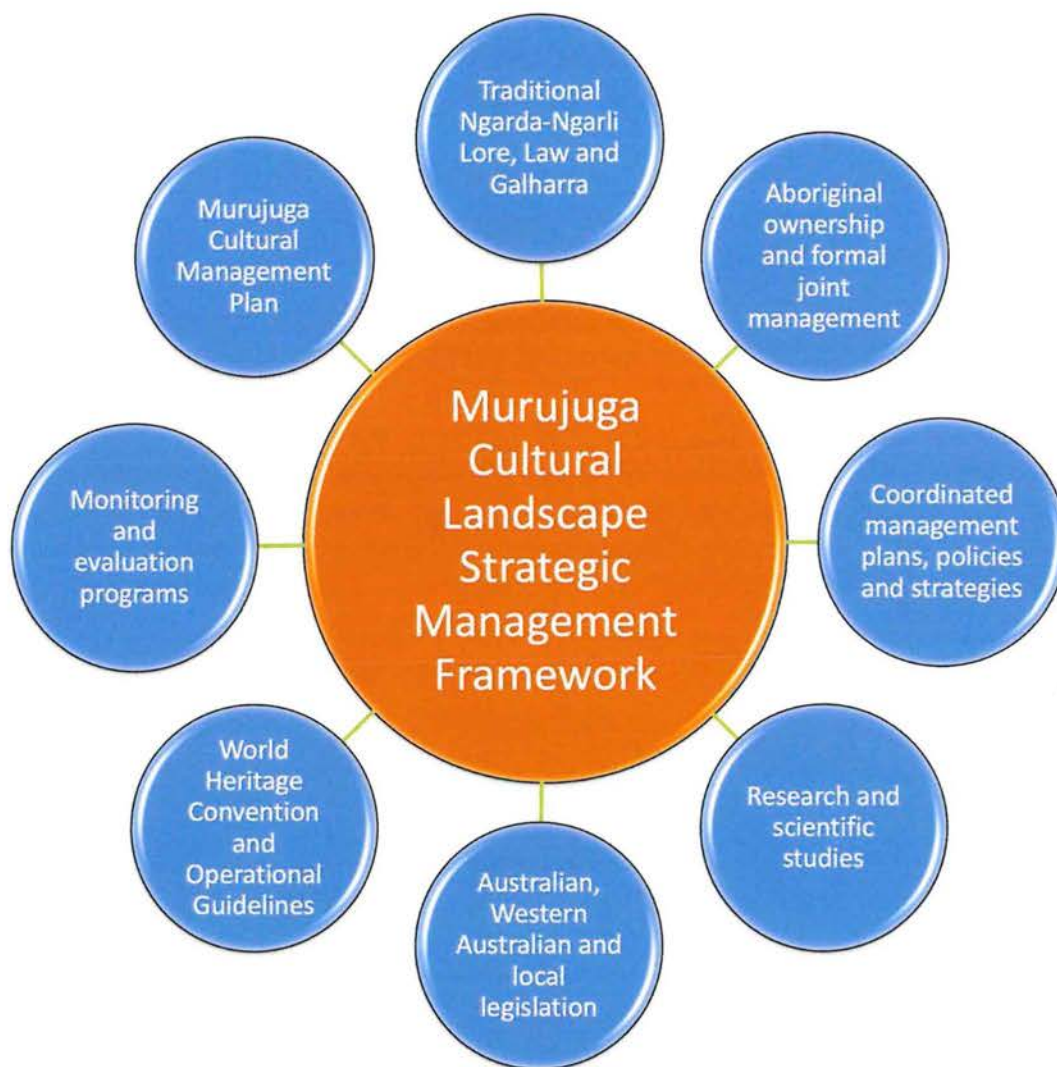


Figure 1: Components of the Murujuga Cultural Landscape Strategic Management Framework.

Sustainable management of the potential Outstanding Universal Value of the **Murujuga Cultural Landscape** also includes working with the managers of adjacent lands. The impacts of existing development are monitored and managed to ensure the protection of the **Murujuga Cultural Landscape**. In support of Ngarda-Ngarli customary management, there is a deep level of commitment to the management of Murujuga from the Australian, Western Australian and local governments, and non-government stakeholders, to protect and promote the values of the **Murujuga Cultural Landscape**.

Management context

The *Murujuga Cultural Management Strategic Management Framework* has been prepared to ensure existing statutory and non-statutory regimes will also meet the obligations of the World Heritage Convention and the Operational Guidelines. Should the **Murujuga Cultural Landscape** be added to the World Heritage list, the Western Australian Government and Murujuga Aboriginal Corporation will ensure the property's Outstanding Universal Value is considered when plans that contribute to the *Murujuga Cultural Management Strategic Management Framework* are updated.

Traditional

Contemporary protection of the **Murujuga Cultural Landscape** is guided by the customary traditions of Ngarda-Ngarli. Cultural protocols for protecting the petroglyphs and managing the landscape have evolved through generations.

The Murujuga Aboriginal Corporation's *Murujuga Cultural Management Plan* is the principal document guiding planning and management to protect the values of the **Murujuga Cultural Landscape**. It establishes the five important messages (principles) for caring for and managing Ngurra in accordance with Law and cultural practices. These principles act in accordance with the seasons and the natural environment to preserve the health and wellbeing of the land and its people.

The deep cultural responsibility for managing Ngurra, in accordance with Law, is managed through Murujuga Aboriginal Corporation, the Circle of Elders and the Murujuga rangers.

The Circle of Elders is made up of nine senior Traditional Custodians from the five Aboriginal groups responsible for the ongoing care of Murujuga. The Circle of Elders holds cultural knowledge and speaks together as 'one voice' to provide guidance, governance and advice relating to their people, their land, cultural safety and working on Ngurra. The Circle of Elders is pivotal to all major Murujuga Aboriginal Corporation decisions. The membership of the Murujuga Aboriginal Corporation, as well as the wider Aboriginal community in the Pilbara region, recognises the authority of the Circle of Elders for its cultural guidance of Ngurra.

Our leaders and the foundation of our governance structure...
A clear, operational, culturally-defined system of governance is
the backbone of our organisation and the Circle of Elders are
the heart of it.²

The Murujuga Ranger Program, under the guidance of the Circle of Elders, is fundamental to the cultural heritage management of the **Murujuga Cultural Landscape**. The rangers have deep cultural obligations to care for Ngurra in accordance with Law, and work under the cultural guidance and leadership of the Circle of Elders and Murujuga Park Council, to ensure traditional knowledge is maintained.

Cultural mapping is a core component of the Murujuga rangers' cultural heritage management work. Cultural mapping provides a critical understanding of the cultural landscape and how petroglyphs reflect the use of Ngurra throughout history. The mapping is used to inform cultural zoning, which restricts access to specific parts of Murujuga to those with the appropriate cultural authority and ensures the cultural safety of those who visit the **Murujuga Cultural Landscape**.



The *Murujuga Cultural Management Plan* identifies five guiding messages (principles)³ for the protection and management of Murujuga Land and Sea Country:

- 1. Ngurra (Country)** – “For us, Ngurra is not separate. It is part of us. In fact, it is part of everything. We understand this through our Galharra (skin group) system, which connects us with the world we live in and the people around us. It is very difficult to communicate this message as words on a page, so let us be direct and to the point. If Ngurra gets sick, we get sick. When bad things happen on Ngurra, our people can get sick and die. Many people have suffered this way, and not only people in our community. This can affect anyone. So when we talk about cultural safety, we are serious. It is about keeping Ngurra safe and people safe.”
- 2. Lore. Our Lore.** – “Ours is an ancient and sacred Lore that comes from Country. When European people arrived here recently, they thought we had no law because it was not written down. But our Lore is written in Country – they just didn’t know how to read it. Just like there are special people who study for a long time to be able to read the European law, we have special people in our community who study for a long time to be able to read our Lore, to carry it on and to enforce it. These are our Loremen. They have a high status in society because of their knowledge. They read the Lore, they enforce the Lore and they keep us all safe. Cultural safety comes from the Lore.”
- 3. Circle of Elders** – “Our leaders and the foundation of our governance structure. The Circle of Elders is comprised of senior men and women from the different Ngurra-ra Bura groups responsible for the ongoing care of Murujuga. They meet once a month to provide guidance and wisdom for the rangers and others working on Murujuga and are regularly involved in day-to-day work with the rangers. The Elders are the bosses for all cultural matters, including cultural safety. All of us work for the Murujuga Aboriginal Corporation and this is guided by our strong representative board. A clear, operational, culturally defined system of governance is the backbone of our organisation and the Circle of Elders are the heart of it.”
- 4. Murujuga rangers** – “It’s all about the rangers. They are the ones who are connecting everything together. They are on Country every day. The rangers connect everyone who visits Murujuga with us. They connect the messages written in the rock art with the current and future management of Murujuga through state-of-the-art digital management tools and geographic information systems (GIS) designed by the rangers. They connect the formal responsibilities of managing Western Australia’s hundredth National Park with our own style that is based on cultural practice. They connect traditional ways with mainstream natural resource management, and with our partners and stakeholders. The rangers connect our history with the present, while looking to the future. They put our vision into action as part of their daily work. The rangers connect cultural safety with everyone.”
- 5. Cultural safety** – “It is in everything we do. It connects our future with our past and it connects us with you.”

The cultural process of exchanging and recording internal knowledge is central to the Murujuga rangers' work to manage Ngurra. On-Country trips are an important component of this. They provide an opportunity for language and family groups to talk about their perspectives and knowledge of Ngurra and to share information across the generations.

The Murujuga rangers also carry out cultural plant management, guided by the Circle of Elders. This uses traditional knowledge and methods to care for plants while practicing culture to keep them healthy. This includes seed collection, plant propagation, traditional uses of plants including as food, restoration, monitoring and weed control.

The Murujuga Aboriginal Corporation's custom-designed, integrated Cultural Heritage Management System (CHMS) is integral to the recording, monitoring and management of cultural knowledge and heritage information. The CHMS also provides the infrastructure to manage the operational and reporting aspects of the Murujuga Ranger Program and to track progress towards objectives and responsibilities in various strategies, plans and agreements.

The Murujuga rangers can be granted powers under the CALM Act to enforce relevant regulatory laws and regulations to ensure the protection of the significant values of the national park and nature reserves. DBCA mentors and provides capacity-building support for the rangers to facilitate future authorised officer training. This includes on-ground training with visitor management and field visits to other national parks to gain experience with DBCA rangers performing a regulatory role with the public.

The *Murujuga Cultural Management Plan* acknowledges there are many stakeholders, including the Australian and Western Australian governments, local government, the Pilbara Ports Authority and industry, with interests in and responsibilities for Murujuga. The Murujuga Aboriginal Corporation, Circle of Elders and Murujuga rangers are aware of the many challenges these multiple interests and responsibilities present. They actively seek to build long-term, collaborative, respectful and beneficial partnerships with others to ensure that Ngurra is cared for and protected in line with the vision, goals and actions identified in the plan. The Murujuga rangers partner with the Pilbara Ports Authority and industry in a number of environmental initiatives that support the protection and management of Murujuga.

In 2022, the Australian Government began working with the Murujuga Aboriginal Corporation, the Western Australian and local governments, and industry stakeholders to scope a potential cooperative management agreement, which would ensure that the Murujuga Aboriginal Corporation is at the centre of all decision-making in the development of sustainable commercial agreements, economic partnerships and funding arrangements for industrial land adjacent to the **Murujuga Cultural Landscape**. If successful, this agreement will complement the management arrangements for the nominated property.

Joint management

DBCA recognises the unique role and expertise Aboriginal people have as Traditional Owners of the lands and waters it manages, and the valuable contribution they make to caring for Country. The involvement of Aboriginal people in land management contributes to improved protection of cultural and heritage values and the maintenance of customary activities. Traditional Owners ensure that both tangible and intangible values and concepts are identified and documented in management planning processes, and that management strategies are implemented in a culturally-appropriate manner.

DBCA has a long history of partnerships with Traditional Owners and has many successful and ongoing partnerships in place for joint management, including those with the Murujuga Aboriginal Corporation. As of November 2022, 46 parks and reserves, totalling more than 5.25 million hectares, are being jointly managed by Traditional Owners and DBCA. There are also several informal cooperative arrangements with Aboriginal

groups to support on-ground management of land and scientific research projects. These formal and informal arrangements help DBCA to fulfill the CALM Act management objective of protecting and conserving the value of the land to the culture and heritage of Aboriginal people.

The Murujuga Aboriginal Corporation and DBCA jointly manage the Murujuga National Park and islands of the Dampier Archipelago included in Western Australia's conservation estate, under the provisions of the CALM Act. These arrangements are achieved through statutory joint management agreements between the Murujuga Aboriginal Corporation and DBCA that set out how the parties will come together to make decisions and provide recommendations about how an area is managed, including how to protect cultural sites and values. These agreements are supported by joint management plans – the Murujuga National Park Management Plan and the Joint Management Plan for Islands of the Dampier Archipelago (in preparation).

The Murujuga Park Council is the joint management body responsible for overseeing the management of these areas. The Murujuga Park Council is made up of six representatives from the Murujuga Aboriginal Corporation, three representatives from DBCA and a representative appointed by the Western Australian Minister for Aboriginal Affairs. Decisions made by the Murujuga Park Council are in accordance with its procedural arrangements and consistent with the provisions of the joint management agreements, the management plans, the CALM Act and other legislation. The joint management structure is depicted in Figure 2.

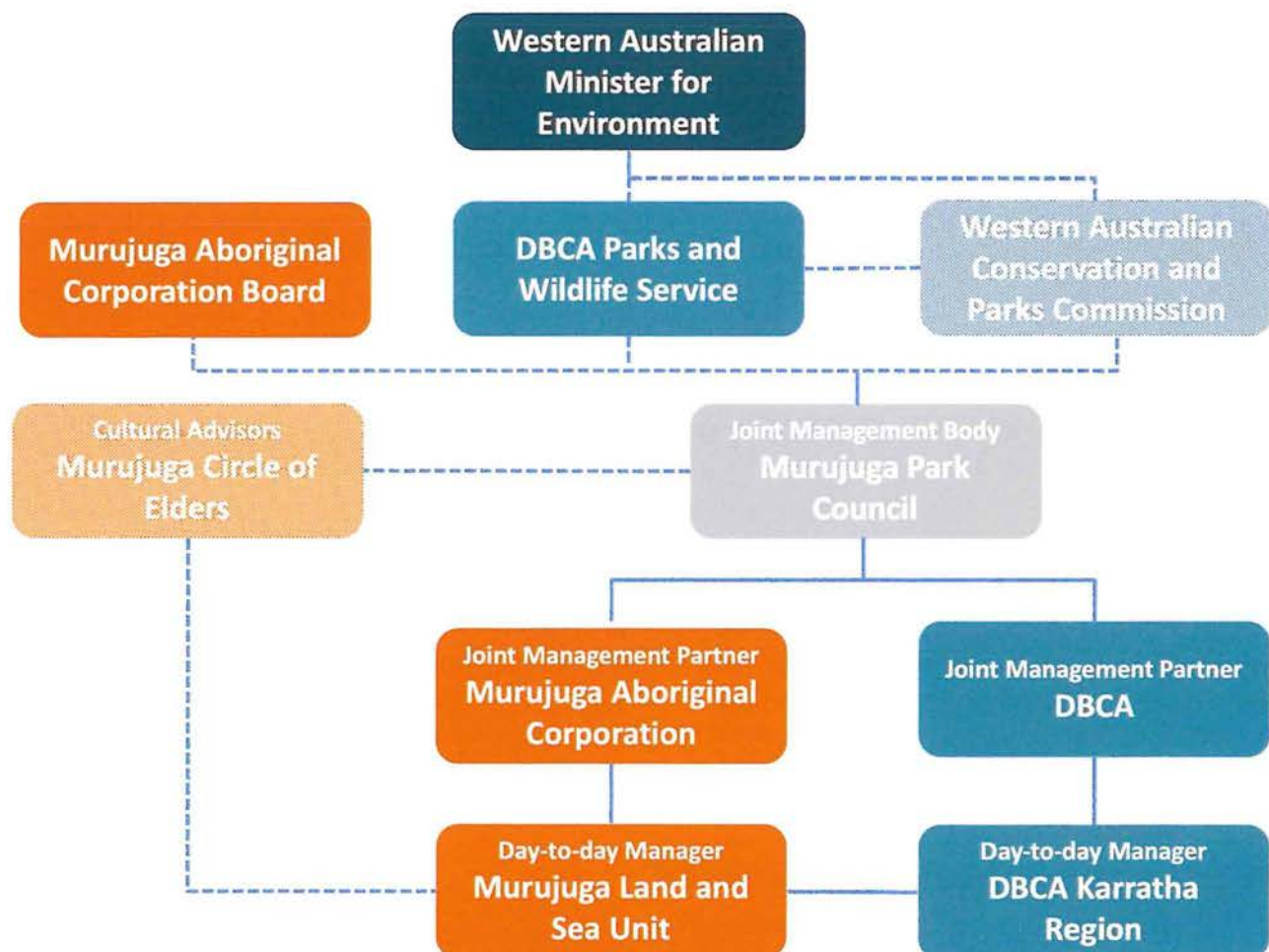


Figure 2: Joint management structure for the Murujuga National Park and jointly managed islands of the Dampier Archipelago.

The Murujuga Park Council is responsible for:

- preparing management plans under the CALM Act and related policies for the management of the conservation reserves
- determining priorities for any activities required to be undertaken in accordance with or to progress the management plans
- approving the expenditure of the annual budget for the management of the conservation reserves
- recommending the appointment of Aboriginal staff to be employed to work in the conservation reserves
- strategically monitoring the management of the conservation reserves, including the implementation of the management plans
- providing advice to the Murujuga Aboriginal Corporation, the Director General of DBCA, the Conservation and Parks Commission and any other appropriate party, on the use, management and development of the conservation reserves.

While not undertaking the day-to-day management of the **Murujuga Cultural Landscape**, the Murujuga Park Council provides direction to the Murujuga rangers and DBCA to develop and oversee works programs. Core management tasks include management and monitoring of visitor impacts, maintenance and servicing of infrastructure and the delivery of conservation programs, to ensure traditional knowledge is maintained.

Legislation

The potential Outstanding Universal Value of the **Murujuga Cultural Landscape** is safeguarded through a robust protection and management system. The area is subject to protection and management under a suite of Australian and Western Australian government legislation. Table 1 provides a summary of the legislative arrangements for the protection and management of the **Murujuga Cultural Landscape**.

Australia is one of only a few countries in the world that has enacted legislation that explicitly refers to its obligations under the World Heritage Convention. The EPBC Act came into effect in 2000 and provides a direct link to Australia's obligations under the World Heritage Convention. The Environment Protection and Biodiversity Conservation Regulations 2000 (EPBC Regulations) prescribe the Australian World Heritage Management Principles (Appendix 1), which the Australian Government and its agencies must take all reasonable steps to comply with.

Heritage impact assessment

Comprehensive heritage impact assessment is vital to the protection of the **Murujuga Cultural Landscape**. There is ongoing work in mapping the cultural attributes of the nominated property through desktop research, consultation with Ngarda-Ngarli, on-ground site survey and the use of remote sensing equipment. The information and results are held in Murujuga Aboriginal Corporation's CHMS.

Environmental impact assessment (EIA) is a regulatory mechanism provided under both Australian and Western Australian legislation that aims to ensure that significant impacts to values are either avoided, mitigated, or offset. These are systematic processes designed to evaluate a proposal (including its alternatives) and its effects on the environment, as well as to consider the mitigation and management of those effects. The process extends from a proposal's initial concept through implementation to completion and, where appropriate, decommissioning.

Environment Protection and Biodiversity Conservation Act 1999

The EPBC Act already applies to over 36,800 hectares of Murujuga through the National Heritage listing of the Dampier Archipelago (including the Burrup Peninsula) in 2007, and will have further application to the area if the **Murujuga Cultural Landscape** is inscribed on the World Heritage List.

The EPBC Act does not only operate within the boundaries of a National Heritage place or World Heritage property, but also considers potential direct and indirect impacts on the heritage values from any actions taken outside the boundary, including outside any designated buffer zone, that may have a significant impact on the place's values.

In the case of the **Murujuga Cultural Landscape**, this will ensure that any proposal that may have a significant impact on attributes that convey the property's potential Outstanding Universal Value, would be assessed by the Australian Government under the EPBC Act, irrespective of the location, size or scale of the proposed activity.

In effect, the EPBC Act provides a legislative 'buffer zone' in place of a physical buffer zone for Australia's National Heritage places and World Heritage properties. Delineating a buffer zone around the **Murujuga Cultural Landscape** would not result in any greater level of protection, therefore no specific buffer zone is the proposed for the **Murujuga Cultural Landscape**.

Under the EPBC Act, actions that have, or are likely to have, a significant impact on a matter of national environmental significance, such as the listed values of World Heritage properties or National Heritage places, may not proceed without approval from the Australian Minister for the Environment. An initial referral process determines whether an action is likely to have a significant impact. If so, it is subject to a more detailed assessment before the Minister decides whether to approve or not approve it.

The EPBC Act provides for the Australian Government to enter bilateral agreements with its states and territories to streamline environmental assessment and approval processes. Currently the Australian Government accredits the Western Australian Environmental Protection Authority (EPA) assessments on a case-by-case basis. Amendments were made to the *Western Australian Environment Protection Act 1986* (EP Act) in 2021 to improve regulatory efficiency and effectiveness and facilitate the implementation of the bilateral agreements under the EPBC Act.

Environmental Protection Act 1986

Part IV for the EP Act makes provisions for the EPA to undertake an EIA of significant proposals that will, or are likely to have, a significant effect on the environment if the project is implemented. The EPA uses environmental principles, factors, and associated objectives as the basis for assessing a proposal's impact on the environment. These underpin the EIA process and provide a systematic approach to organising environmental information for the purpose of the EIA and the structure for the assessment report. The EPA has 14 environmental factors, organised into five themes: sea, land, water, air and people.⁴

Assessment considerations

Under both assessment processes, a proposed action is referred for decision as to whether the action requires formal assessment and approval under the relevant legislation. If approval is required, then the proposed action proceeds to the assessment and approval stages. Proponents are required to produce documentation describing the proposal, the potential environmental impacts and how these impacts would be managed. In undertaking assessments and making approval decisions, a number of matters must be considered, including:

- all adverse impacts (direct and indirect) of the proposed action
- economic and social matters
- legislative principles including the precautionary principle, the principles of intergenerational equality and ecologically sustainable development
- community and stakeholder comments
- the report which recommends whether the action should/should not be approved and any conditions that should be attached to the approval
- comments from other Australian Government or state and territory government ministers (if any)
- confidence in the proponent's proposed mitigation measures
- whether other statutory decision-making processes can mitigate the potential impacts of the proposal on the environment.

Separate decisions to approve or not approve project proposals sit with the relevant Minister; the Australian Minister for the Environment (EPBC Act) or the Western Australian Minister for Environment (EP Act). If a project is granted approval, specific conditions may be imposed. This can include the preparation of cultural heritage management plans, which may also require Ministerial approval, or the requirement for changes to development footprints to avoid cultural sites or adjustment to air emissions, visual or auditory impacts.

Should the **Murujuga Cultural Landscape** be added to the World Heritage List, the impact assessment process will take into greater consideration the cultural attributes that convey the site's potential Outstanding Universal Value. Guidance on how best heritage protection and management can occur will be taken from the *Guidance and Toolkit for Impact Assessment in a World Heritage Context* resource manual.⁵

Table 1: Legislative context – principal Australian, Western Australian, and local government legislation for the Murujuga Cultural Landscape.

* DBCA has responsibilities for the management of weeds, feral animals and fire preparedness on unallocated Crown land under the *Conservation and Land Management Act 1984*.

Murujuga Cultural Landscape	Murujuga National Park	Dampier Archipelago conservation estate	WA unallocated Crown land* and other Crown reserves	Local government land	Dampier Archipelago waters	Port lands and waters	Industrial lands	Australian Department of Defence leased land
Australian Government legislation	<i>Environment Protection and Biodiversity Conservation Act 1999</i>							
	<i>Aboriginal and Torres Strait Islander Heritage Protection Act 1984</i>							
					<i>Underwater Cultural Heritage Act 2018</i> <i>Protection of the Sea (Prevention of Pollution from Ships) Act 1983</i> <i>Navigation Act 2012</i>			
Western Australian Government legislation	<i>Aboriginal Cultural Heritage Act 2021</i>							
	<i>Environmental Protection Act 1986</i>							
	<i>Land Administration Act 1997</i>							
	<i>Biodiversity Conservation Act 2016</i>							
	<i>Mining Act 1978</i>							
	<i>Conservation and Land Management Act 1984</i>		<i>Planning and Development Act 2005</i>		<i>Fish Resources Management Act 1994</i>	<i>Port Authorities Act 1999</i>	<i>North West Gas Development (Woodside) Agreement Act 1979</i> <i>Dampier Solar Salt Industry Agreement Act 1967</i> <i>Iron Ore (Hamersley Range) Agreement Act 1963</i>	
				<i>Local Government Act 1995</i>				

Planning approach

As well as legislation and statutory regulations, the protection and management of the **Murujuga Cultural Landscape** is influenced by several national, state, regional and local policies, plans and strategies. While there are individual management plans in place or being developed, the *Murujuga Cultural Landscape Strategic Management Framework* provides management objectives and strategies for the management of the whole of the **Murujuga Cultural Landscape**.

The strategies outlined in this document address primarily those issues that are of strategic importance to the overall integrity of the **Murujuga Cultural Landscape's** National Heritage values and potential Outstanding Universal Value and therefore require a strategic, coordinated and consistent approach by the management agencies.

This framework gives direction and guidance to the Murujuga Aboriginal Corporation, Western Australian and local government agencies in the formulation of their policies and in the development of other planning instruments. It also provides a commitment by all parties to manage and protect the attributes which support and convey the potential Outstanding Universal Value of the property to meet Australia's obligations under the World Heritage Convention.

Preparation of this framework has been guided by the information in the documents prepared for the nomination of the **Murujuga Cultural Landscape** for World Heritage listing, existing management arrangements and government policies, consultation between the Murujuga Aboriginal Corporation and the government agencies involved. Consultation with the local community and stakeholders was also undertaken during the development of the nomination. In addition, a number of experts and government agency officials were consulted on the nomination and the proposed management arrangements for the property.



Aerial view of Nganjarli Art Viewing Trail in Murujuga National Park. © FUZZ Digital

Strategic management

Objectives

World Heritage inscription is the highest level of recognition afforded to a heritage place. It places a responsibility in Australia to apply the highest standards of management practice. Management objectives for the **Murujuga Cultural Landscape** have been derived from the World Heritage Convention and the Operational Guidelines which together provide the basis for management and guidance in the formulation of operational management strategies. These objectives are consistent with, and complemented by, the *Australian World Heritage Management Principles* set out in the EPBC Regulations.

The primary objectives for the strategic management of the **Murujuga Cultural Landscape** are to:

- protect, conserve and present the potential Outstanding Universal Value of the property
- integrate the protection of the property into a comprehensive planning program
- give the property a function in the life of the community
- strengthen appreciation and respect of the property's potential Outstanding Universal Value, particularly through educational and information programs
- keep the community broadly informed about the condition of the attributes that convey the property's potential Outstanding Universal Value
- take appropriate scientific, technical, legal, administrative and financial measures necessary for achieving these objectives.

In achieving these primary objectives, due regard is to be given to:

- providing essential services to communities within and adjacent to the property
- allowing for use of the property which does not have a significant impact on the attributes of Outstanding Universal Value, its integrity and authenticity
- recognising the role of current management agencies in the protection of the property
- the involvement of the local community in the planning and management of the property.

Management arrangements

This strategic management framework provides the overarching structure to meet the obligations set out in the World Heritage Convention and Operational Guidelines:

- ensure the Outstanding Universal Value, including the conditions of integrity and/or authenticity at the time of inscription, is maintained or enhanced in the future
- adequate long-term legislative, regulatory, institutional and/or traditional protection and management is in place to ensure its safeguarding

- legislative and regulatory measures at national and local levels provide for the conservation of the property and protection against development and change that might negatively impact the Outstanding Universal Value including the integrity and/or authenticity of the property
- the boundary is clearly delineated
- a buffer zone is not required as the **Murujuga Cultural Landscape** has legal protection, both within and beyond the boundaries of the place under the EPBC Act
- each part of the nominated property has an appropriate management plan or system (or a plan is in preparation) that specifies how the attributes which support and convey the Outstanding Universal Value of the property will be protected and preserved.

The *Murujuga Cultural Management Plan* is the key foundation document guiding planning and management to protect the potential Outstanding Universal Value of the **Murujuga Cultural Landscape**.

The **Murujuga Cultural Landscape** comprises national park and nature reserves, unallocated Western Australian Crown land, leasehold and freehold land. Each of these places is individually controlled and managed under various statutory and management regimes that provide specific legal protection.

This regime is translated into protective measures under management plans and associated strategies and programs. The Murujuga Aboriginal Corporation and relevant Australian and Western Australian government agencies will work together to ensure that each plan contains policies to promote integration and consistency with other planning documents across the **Murujuga Cultural Landscape**, to protect the property's values, and among other things, ensure tourism development opportunities are available to meet projected future demands.

The management plans have been prepared to meet the EPBC Act requirements for National Heritage and will be revised to ensure EPBC Act World Heritage requirements are also met, should the nominated property be World Heritage listed. The plans also satisfy the Western Australian regulatory requirements and are reviewed and revised as required. Table 2 shows the interaction between the *Murujuga Cultural Landscape Strategic Management Framework* and the individual management plans.

Partnerships with non-government organisations, community groups and industry stakeholders support the protection and transmission of the heritage values to the broader community.

Table 2: Murujuga Cultural Landscape management system.

Murujuga Cultural Landscape	Murujuga National Park	Dampier Archipelago conservation estate	WA unallocated Crown land and other Crown reserves	Local government land	Dampier Archipelago waters	Port lands and waters	Industrial lands	Australian Department of Defence
National Planning	Murujuga Cultural Landscape Strategic Management Framework (2022)							
Traditional planning	Murujuga Cultural Management Plan (2016)							
Western Australian State Planning	Murujuga Rock Art Strategy (2019)							
	Murujuga National Park Management Plan (2013)	Draft Joint Management Plan for the Dampier Archipelago (in preparation) Dampier Archipelago Nature Reserves Management Plan (1990)		State Planning Strategy 2050		Pilbara Ports Authority Cultural Heritage Management Plan 2022-2024	Burrup Peninsula Land Use Plan and Management Strategy (1996) Management by industrial lessees through Cultural Heritage Management Plans	Defence Heritage Strategy (2017)
Western Australian local planning				City of Karratha Local Planning Strategy 2020 City of Karratha Local Planning Scheme No.8				

Administration and consultation arrangements

The proposed **Murujuga Cultural Landscape** World Heritage property will be administered through a system of existing governing bodies, landowners, and managers with cultural, management and operational responsibilities for parts of the nominated property. In addition to state and local level arrangements, a national strategic approach to World Heritage governance (Table 3) will apply to the whole property.

Should the **Murujuga Cultural Landscape** be added to the World Heritage List, a property-specific advisory committee will be established, and will include representatives of Ngarda-Ngarli, relevant government agencies, other landowners/managers, relevant scientific experts, and members of the community. The committee will provide advice on the implementation of the *Murujuga Cultural Landscape Strategic Management Framework* and on matters relating to the protection, conservation and management of the property. This committee will help to identify initiatives and opportunities to promote and present the property's Outstanding Universal Value, to enhance the stewardship and connection of the community to the World Heritage area. Executive support will be provided by the Western Australian Government.

The Australian Government has an overarching management frameworkⁱⁱ to guide best practice management of Australia's World Heritage properties. This includes the Australian World Heritage Advisory Committee, which provides a forum for World Heritage property managers to share information on best practice management and provide advice to the Australian Government, state and territory governments on issues affecting Australia's World Heritage properties. The Australian World Heritage Advisory Committee includes representatives from each Australian World Heritage property. Membership will automatically be extended to the **Murujuga Cultural Landscape** World Heritage Advisory Committee should it be added to the World Heritage List.

ii <https://www.dcceew.gov.au/parks-heritage/heritage/about/world/management-australias-world-heritage-listed/managing-world-heritage-australia>



Petroglyph image of a kangaroo. J. McDonald © Centre for Rock Art Research and Management

Table 3: Governance arrangements for the Murujuga Cultural Landscape.

National governance	Australian World Heritage Advisory Committee Murujuga Cultural Landscape World Heritage Advisory Committee						
Ngarda-Ngarli governance	Murujuga Aboriginal Corporation Board of Directors Circle of Elders Murujuga Aboriginal Corporation						
Australian Government agencies	Department of Climate Change, Energy, the Environment and Water						
							Department of Defence
Western Australian Government agencies	Department of Water and Environmental Regulation Environmental Protection Authority						
	Department of Biodiversity, Conservation and Attractions	Department of Planning, Lands and Heritage		Department of Primary Industries and Regional Development Department of Biodiversity, Conservation and Attractions	Pilbara Ports Authority	Department of Jobs, Tourism, Science and Innovation DevelopmentWA	
Joint Management Body	Murujuga Park Council						
Local government agency			City of Karratha				

Managing potential threats

Ensuring that the cultural attributes of the **Murujuga Cultural Landscape** are protected and managed is of the utmost importance to Ngarda-Ngarli, the Murujuga Aboriginal Corporation and the Australian and Western Australian governments.

Monitoring the state of conservation and the effectiveness of management plans and mitigative strategies are integral to the *Murujuga Cultural Landscape Strategic Management Framework*.

Table 6.1 of the nomination dossier identifies the key indicators to measure the state of conservation of the **Murujuga Cultural Landscape**. The indicators, which relate to the attributes of potential Outstanding Universal Value and factors affecting the **Murujuga Cultural Landscape**, provide the baseline for periodic reporting against the pressures identified in Section 4 of the nomination dossier. Policies and strategies for managing major potential threats to the nominated property are outlined below.

Development on the southern Burrup Peninsula

The **Murujuga Cultural Landscape** is located within a rich mining, oil and natural gas resource development region on the west coast of Australia that is of strategic and economic importance to Western Australia and Australia.

While located outside of the nominated property, it is acknowledged that current and future industrial developments have the potential to impact the attributes of the **Murujuga Cultural Landscape**. Impacts may arise from loss of land access for cultural practices, industrial air emissions, water pollution, the need for additional infrastructure and alterations to natural water flow and habitat destruction. However, as current and future industrial developments are managed under a comprehensive suite of Australian and Western Australian environmental protection, planning, heritage and safety legislation, the impact on the nominated property is not considered significant.

Development proposals that could affect the nominated property are subject to comprehensive assessment and approval requirements and are regulated under stringent management systems and compliance conditions. In deciding if a proposed action should be approved and determining what conditions should be imposed, environmental, social and economic factors are considered, having regard for legislative principles including the precautionary principle, the principles of intergenerational equality and ecologically sustainable development. Industrial developments will continue to be assessed and regulated under this legislative framework on a case-by-case basis.



In the event that the **Murujuga Cultural Landscape** is inscribed on the World Heritage List, Australia's obligations under the World Heritage Convention will also be considered in assessing any new development proposals and associated impact assessments and in monitoring current industry.

Industrial air emissions

The Murujuga airshed encompasses the entire Burrup Peninsula and includes the population centres of Dampier and Karratha and surrounding areas. Currently, the most significant sources of air emissions within the Murujuga airshed are derived from liquid natural gas production, adjacent to the nominated property. Shipping operations mainly associated with the loading of iron ore and liquid natural gas at Dampier Port also release emissions into the Murujuga airshed.

Industrial air emissions and their potential impact on the longevity and stability of the petroglyphs have generated considerable concern for the Ngarda-Ngarli and broader community.

The Murujuga Rock Art Strategy and Murujuga Rock Art Monitoring Program have been developed and implemented to provide a scientifically rigorous approach to monitoring, analysing and managing the petroglyphs, while being informed by Law, knowledge, and practices of Ngarda-Ngarli. These initiatives will not only help to protect the petroglyphs but will contribute to the management of the other tangible cultural features of the **Murujuga Cultural Landscape**.

The Murujuga Rock Art Monitoring Program is designed to provide the best scientific evidence for the assessment, approval, management and compliance responsibilities of governments, industry, and the Murujuga Aboriginal Corporation, under Australian and Western Australian legislation. The program consists of non-invasive field monitoring and high-resolution laboratory measurements to gain a comprehensive understanding of:

- the condition of the petroglyphs
- the physical, biological, and chemical processes that affect their condition
- the existing and potential future impact of industrial output on their condition.

This will inform the development of an Environmental Quality Management Framework and an agreed Environmental Quality Criteria including standards and guidelines. The guidelines will be the lower threshold of a detectable change, or early warning indicator, that would trigger an investigation (beyond routine monitoring), and the standards will be the threshold of unacceptable change in petroglyph condition, with scientifically based limits of 'acceptable' change.

Below Image of Southern Burrup Peninsula. © C. Walker



Climate change

The *IUCN World Heritage Outlook 3*⁶ identified climate change as the most common current and potential threat to the future conservation of the Outstanding Universal Value of natural World Heritage properties. In most affected World Heritage properties, climate change, through direct impacts and exacerbating other compounding threats, is causing a decline in values. Across Australia, climate change, and projected increases in the frequency and severity of extreme weather events related to climate change, pose a significant risk to the values of places on the National Heritage places and World Heritage properties.

The report *The Future of Our Pasts: Engaging Cultural Heritage in Climate Action*⁷ identified climate change as one of the most significant and fastest-growing threats to people and their cultural heritage worldwide. To date, however, cultural heritage has had limited representation in the reports of the Intergovernmental Panel on Climate Change (IPCC), which are the world standard in climate science and research. The ICOMOS report emphasises that all heritage, from World Heritage properties to indigenous languages and practices, to small archaeological sites that may not yet have been recorded, holds information integral to understanding the climate system, environmental responses to changes and impacts of climate change.

The Australian National University's 2009 report *Implications of climate change for Australia's World Heritage Properties: A preliminary assessment*⁸ identified that there is little information available on the potential impacts of climate change on the cultural values of Australia's World Heritage properties. The potential impacts on cultural values may include excessive erosion from extreme weather events, changes to vegetation from drought, changes in rainwater acidity, and heat and soot from intense fires. In addition, storm-surge and saline intrusion into coastal regions is likely to affect low-lying, coastal cultural values. The report identifies that the preservation of unique cultural values, including petroglyphs, Aboriginal middens and archaeological sites, will be highly dependent on the maintenance and protection of their underlying landforms from climate change impacts.

The cultural heritage values of the **Murujuga Cultural Landscape** may be at risk from the impacts of climate change, including changes to ecosystems, increased incidence of extreme heat events and bushfires, changing cyclone risk and rising sea levels, and increased evaporative demand. The impacts of climate change are unlikely to significantly impact the integrity of the nominated property by worsening existing threats, given the **Murujuga Cultural Landscape** has been subject to extreme climatic change over an extensive period. The proven longevity of the cultural landscape under these conditions is evidence of the high natural resilience of the nominated property.

Planning for the sustainable future of the nominated property needs to consider:

- the risks posed by climate change
- the available adaptation strategies to support future planning
- how to build community awareness of the need to adapt.

This needs to take into account the cultural context, including the traditional knowledge and understanding of the complex interaction between people and the environment that Ngarda-Ngarli can draw upon to develop adaptation strategies.

The Western Australian Government has prepared the *Western Australian Climate Policy (2020)*⁹, which is a plan to position Western Australia for a prosperous and resilient low-carbon future. The policy supports the Western Australian Government's commitment to adapting to climate change and working with all sectors of the economy to achieve net zero greenhouse gas emissions by 2050. The policy draws together a suite of climate change actions that are underway and sets out new commitments to support the vision of a resilient, low-carbon future. These include initiatives to support the net zero transition across the public sector, initiatives for low-carbon energy, mining and agriculture, and commitments to guide decarbonisation across the rest of the economy.



Storm clouds merging over the Murujuga Cultural Landscape. © A. Stevens

Other initiatives being progressed by the Western Australian Government include:

- The EPA's *Environmental Factor Guideline Greenhouse Gas Emissions* (2020)¹⁰ which sets out when and how greenhouse gas emissions will be considered by the EPA in the EIA process to ensure projects are assessed and conditioned in an effective, consistent and equitable manner. When greenhouse gas emissions are considered in the EPA's assessment of proposals, proponents will be required to develop a greenhouse gas management plan to demonstrate their contribution towards the aspiration of net zero emissions by 2050.
- The *Greenhouse Gas Emissions Policy for Major Projects* (2019)¹¹ that guides government decision-making for major projects that are assessed by the EPA under the EP Act. The policy requires projects with significant emissions to set timeframes and emissions reduction targets to support Western Australia's aspiration of net zero emissions by 2050. The policy aims to facilitate flexible approaches to greenhouse gas reduction that promote innovation, emerging best practice technologies and potential new industries and opportunities for Western Australia.
- The *Clean Energy Future Fund* (2020)¹², which supports the implementation of innovative clean energy projects which contribute to significant, cost-effective reductions in greenhouse gas emissions.

The Australian Government is developing a comprehensive range of policies, strategies, programs and information to reduce Australia's greenhouse gas emissions and meet its obligations under the Paris Agreement. This includes developing and coordinating Australia's domestic climate change policy, developing *Australia's Long-term Emissions Reduction Strategy*¹³ and administering the Climate Solutions Package to deliver on Australia's 2030 Paris Agreement commitments.

In 2021, the Australian Government released the *National Climate Resilience and Adaptation Strategy 2021-2025*¹⁴, which aims to position Australia to better anticipate, manage and adapt to our changing climate. The strategy sets out what the Australian Government will do to support efforts across all levels of government, businesses and the community, to better anticipate, manage and adapt to the impacts of climate change.



Murujuga rangers monitor rock art using drones. © Department of Water and Environmental Regulation

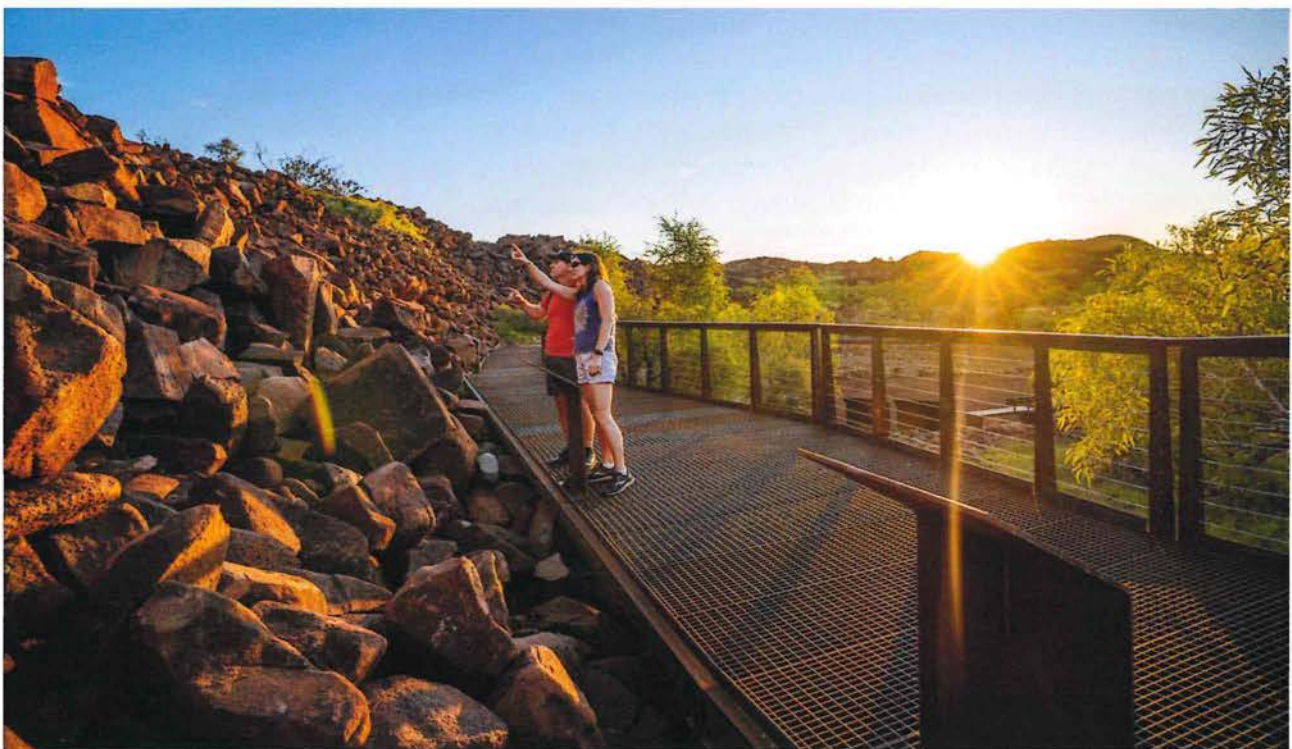
Promotion and presentation

Promotion

The current number of visitors to the **Murujuga Cultural Landscape** is relatively low, with an estimated 52,066 visits to Murujuga National Park and 30,500 visitsⁱⁱⁱ to the Dampier Archipelago Nature Reserves in 2020–21¹⁵. Visitation to the area is increasing, with visit numbers in 2020–21 being nearly double those in 2016–17. Visitation projections vary, with DBCA forecasting visitation numbers to the Murujuga National Park to be around 65,000–85,000 in 2031–32. Other projections suggest visitor numbers for the proposed Murujuga Tourism Precinct may reach up to 300,000 visitors 10 years post-construction. Visitation levels and the scope and extent of the proposed Murujuga Tourism Precinct will be carefully assessed and managed through the existing legislative framework.

Should the **Murujuga Cultural Landscape** be inscribed on the World Heritage List, it is anticipated this will contribute to increased international exposure and create promotional opportunities for Ngarda-Ngarli, as well as the local and regional communities near the property. Increasing visitation will place extra responsibility on the managers to provide additional visitor opportunities without compromising the Natural Heritage and World Heritage values. The Murujuga Aboriginal Corporation has developed Murujuga Cultural Protocols, with input from the Circle of Elders, to promote respect and understanding of Ngurra, and to ensure cultural safety. There are general protocols for visitors, and research protocols for people working on Murujuga¹⁶.

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iii A 'visit' is a measurement unit involving a person going onto the land or waters of a park; re-entry would be counted as an additional visit.



Visitors at Nganjarli Art Viewing Trail, Murujuga National Park. ©FUZZ Digital

Interpretation

The appropriate presentation and interpretation for the potential Outstanding Universal Value of the **Murujuga Cultural Landscape** is a priority for the Murujuga Aboriginal Corporation and the Australian and Western Australian governments. The focus will be on presenting the cultural heritage of the **Murujuga Cultural Landscape** so public awareness, understanding and support for its heritage values and its management become a function in the life of the community, and recreation and tourism do not diminish or threaten the National Heritage place or World Heritage property.

Scientific research

Scientific research is an important component of management and is considered central to the successful implementation of the *Murujuga Cultural Landscape Strategic Management Framework* through evidence-based decision making. In recent years several major scientific research projects have been undertaken which have contributed to increased understanding of the cultural heritage values of the **Murujuga Cultural Landscape** and supported the management of the nominated property. It is inevitable that there will be ongoing scientific interest in Murujuga.

The Murujuga Aboriginal Corporation is the central organisation for developing and managing all scientific research within the **Murujuga Cultural Landscape**. The Murujuga Aboriginal Corporation has a leadership role in linking the many different researchers, consultants, universities, agencies and other organisations working on Ngurra and in linking research to the *Murujuga Cultural Management Plan*, under the governance and direction of the Circle of Elders. The Murujuga Research Protocols¹⁷ have been developed as a set of governing regulatory laws and principles to ensure that research is conducted in a respectful and culturally appropriate manner. The protocols apply to all organisations and researchers involved with scientific research on Murujuga and form the basis on which to build ethically and mutually beneficial research partnerships.

It is recognised that there remain gaps in knowledge, and it is important that independent scientific research is fostered to inform best-practice management and to support programs to counteract potential threats to the potential Outstanding Universal Value, including the integrity and authenticity of the **Murujuga Cultural Landscape**. Facilitating increased levels of scientific research is directly related to Australia's obligations under the World Heritage Convention to encourage scientific research into the identification and conservation of the potential World Heritage values of the **Murujuga Cultural Landscape**.



Murujuga Elders, rangers and researchers work together to care for Country. © A. Stevens

Financial arrangements

The Australian and Western Australian governments provide substantial and ongoing funding to ensure the effective protection, conservation, presentation, and transmission to future generations of the National Heritage values and potential Outstanding Universal Value of the **Murujuga Cultural Landscape**. Funding from a range of other sources also supports broader protection and management of the area, including funding provided by industry agreements made with the Murujuga Aboriginal Corporation.

Should this nomination be successful, the Australian and Western Australian governments will consider funding arrangements consistent with the *Australian World Heritage Intergovernmental Agreement 2009*. A Project Agreement for World Heritage Management is currently in place between the Australian Government and states of Australia, including Western Australia. This agreement supports existing World Heritage property advisory arrangements and property executive officers, to ensure that Australia continues to meet its obligations under the World Heritage Convention, consistent with the EPBC Act. This includes an annual Australian Government financial contribution to each property under the agreement.



Geometric motif within the Murujuga Cultural Landscape. © A. Stevens

Implementation and review

Implementation of the *Murujuga Cultural Landscape Strategic Management Framework* will be supported by the Murujuga Aboriginal Corporation, Australian and Western Australian governments.

The strategic management framework will be current for 10 years from the date of its approval by the signatory parties and will be reviewed after five years. A 10-year timeframe has been selected as a medium-term planning horizon that provides a realistic period within which the management objectives and strategies can be implemented and their effectiveness in achieving desired outcomes evaluated. In addition, the five-year review will:

- identify reasons for lack of achievement or implementation
- assess new information that might affect management
- propose changes and new objectives and strategies where appropriate.

Existing management plans that contribute to the overall protection of the nominated property will undergo a review process within 10 years of their approval. One aim of the reviews will be to ensure the management plans reflect the duties and obligations of signatories to the World Heritage Convention and to facilitate the consistent, coordinated and complementary management of the **Murujuga Cultural Landscape** at strategic policy and operational levels. The reviews also provide an opportunity to incorporate any changes in international best practice on protection and management, including any future revisions to the Operational Guidelines.

Integrated monitoring framework

Managing a World Heritage property includes requirements to monitor the condition of its Outstanding Universal Value and reporting on that information. State of conservation and effectiveness monitoring and reporting are essential in conserving and transmitting World Heritage for future generations. The Operational Guidelines provide guidance on monitoring and reporting on the state of conservation of World Heritage properties.

World Heritage monitoring and reporting combines international and national perspectives (see Figure 3), in addition to individual property and regional oversight and provides information for ongoing adaptive management.

Below Aerial view of Nganjarli Art Viewing Trail, Murujuga National Park. © FUZZ Digital





Figure 3: International and Australian monitoring of Outstanding Universal Value.

The Australian Government provides quarterly notification reports to the World Heritage Centre of proposed developments within or outside an Australian World Heritage property that may impact on a property's Outstanding Universal Value. Periodic reporting is one of the core conservation monitoring mechanisms of the World Heritage Convention. Every six years, the State Parties are invited to submit to the World Heritage Committee a periodic report on the application of the World Heritage Convention in their territory.

Evaluation of management effectiveness

Evaluating the management effectiveness of the *Murujuga Cultural Landscape Strategic Management Framework* will be an important part of the ongoing protection the **Murujuga Cultural Landscape** and requires collaboration of the Murujuga Aboriginal Corporation, all levels of government, and stakeholders, with the Circle of Elders, Murujuga rangers, DBCA staff and the Murujuga Park Council all actively involved in the continual review and refinement of the framework. The property-specific advisory committee will also have an important role in assessing management effectiveness, analysing and acting on the results. UNESCO's *Enhancing our Heritage Toolkit*⁸ will be used to guide and improve this process.

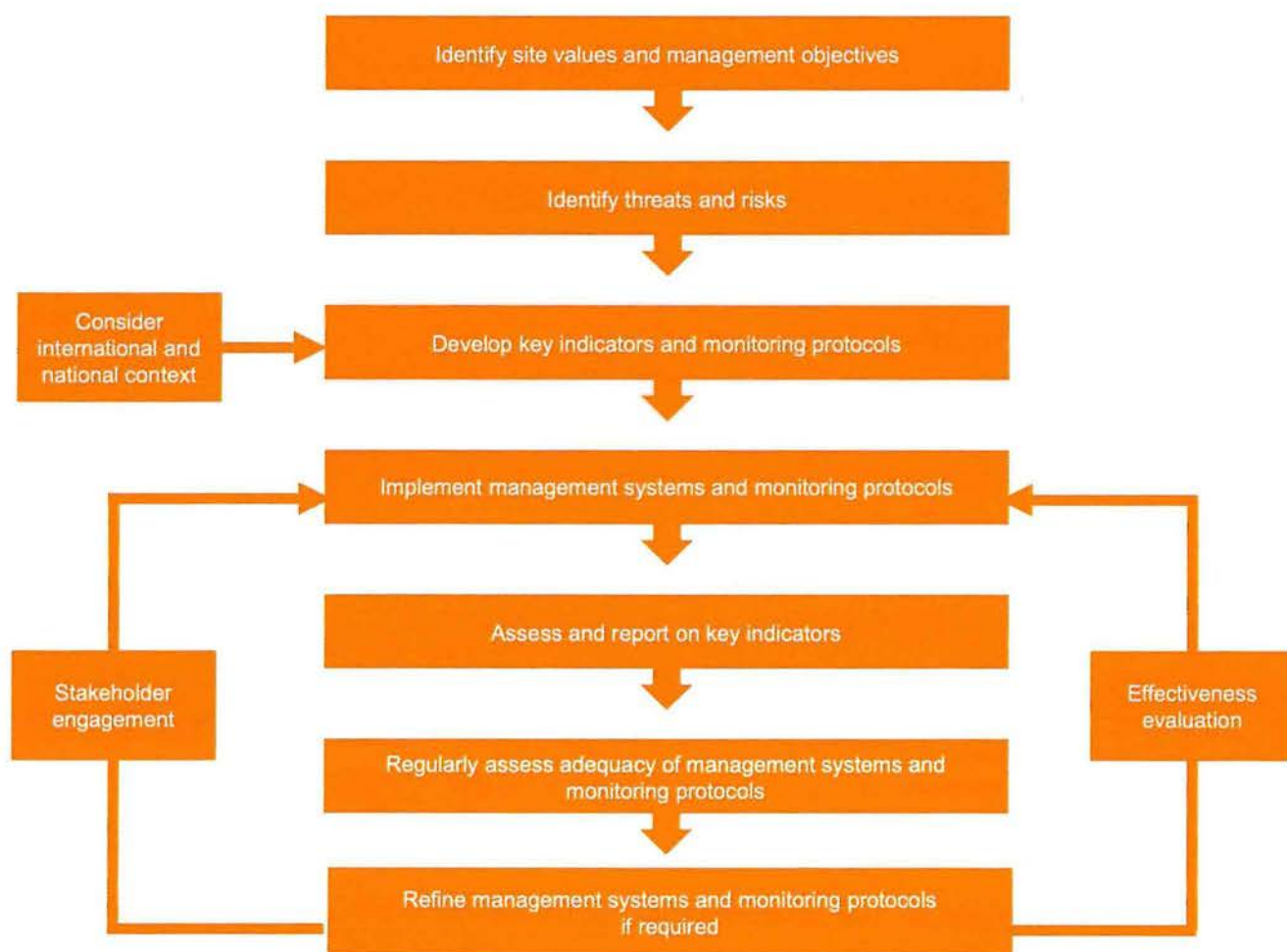


Figure 4: Integrated monitoring framework for the Murujuga Cultural Landscape.

A collaborative coordinated and property-wide approach to monitoring the **Murujuga Cultural Landscape** is integral to the effective adaptive management of the property. The *Murujuga Cultural Landscape Integrated Monitoring Framework*, summarised in Figure 4, is a comprehensive overarching framework that has been developed and is being implemented to:

- Provide best-practice monitoring processes and procedures that will improve the quality, efficiency, comprehensiveness, coordination and integration of monitoring programs conducted by the Murujuga Aboriginal Corporation, Australian and Western Australian government agencies, and other landowners/managers. While monitoring programs need to retain their separate objectives and purpose, it is important that they have consistent and complementary design, methods, analysis/evaluation and reporting, guided by the integrated monitoring framework.
- Ensure the data and information collected by the Murujuga Aboriginal Corporation, Australian and Western Australian government agencies and other landowners/managers are available to be collectively analysed and reported at local, state and national levels. It is not necessary for data and information from all monitoring programs to be collated in a single database, but rather that the data and information can be shared between users to ensure that the data and information are effectively used to support decision-making and improve management.

Appendix 1: Australian World Heritage Management Principles

1. General Principles

- 1.01 The primary purpose of management of natural heritage and cultural heritage of a declared World Heritage property must be, in accordance with Australia's obligations under the World Heritage Convention, to identify, protect, conserve, present, transmit to future generations and, if appropriate, rehabilitate the World Heritage values of the property.
- 1.02 The management should provide for public consultation on decisions and actions that may have a significant impact on the property.
- 1.03 The management should make special provision, if appropriate, for the involvement in managing the property of people who:
 - (a) have a particular interest in the property; and
 - (b) may be affected by the management of the property.
- 1.04 The management should provide for continuing community and technical input in managing the property.

2. Management Planning

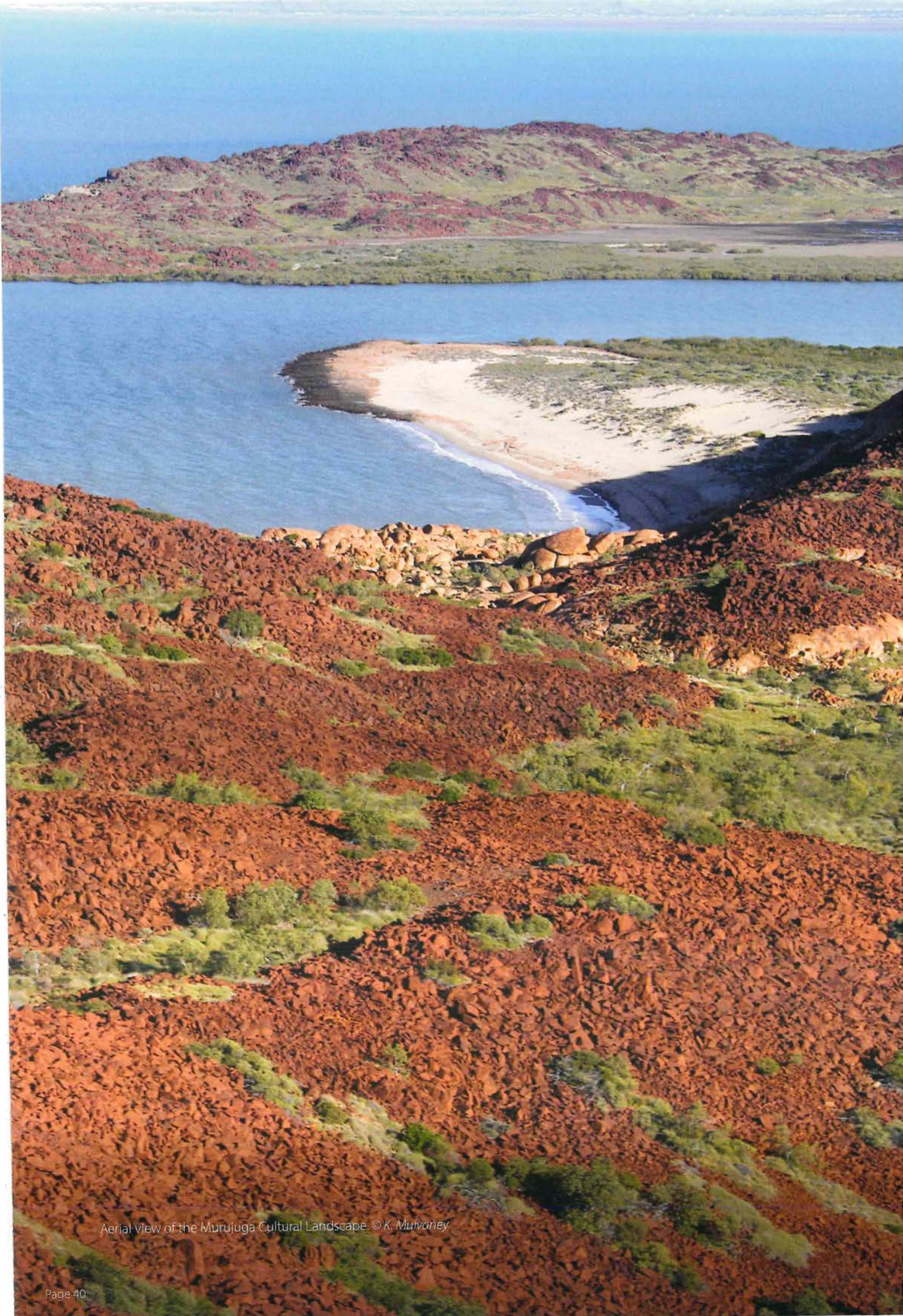
- 2.01 At least 1 management plan should be prepared for each declared World Heritage property.
- 2.02 A management plan for a declared World Heritage property should:
 - (a) state the World Heritage values of the property for which it is prepared; and
 - (b) include adequate processes for public consultation on proposed elements of the plan; and
 - (c) state what must be done to ensure that the World Heritage values of the property are identified, conserved, protected, presented, transmitted to future generations and, if appropriate, rehabilitated; and
 - (d) state mechanisms to deal with the impacts of actions that individually or cumulatively degrade, or threaten to degrade, the World Heritage values of the property; and
 - (e) provide that management actions for values, that are not World Heritage values, are consistent with the management of the World Heritage values of the property; and
 - (f) promote the integration of Commonwealth, State or Territory and local government responsibilities for the property; and
 - (g) provide for continuing monitoring and reporting on the state of the World Heritage values of the property; and
 - (h) be reviewed at intervals of not more than 7 years.

3. Environmental Impact Assessment

- 3.01 This principle applies to the assessment of an action that is likely to have a significant impact on the World Heritage values of a property (whether the action is to occur inside the property or not).
- 3.02 Before the action is taken, the likely impact of the action on the World Heritage values of the property should be assessed under a statutory environmental impact assessment and approval process.
- 3.03 The assessment process should:
 - (a) identify the World Heritage values of the property that are likely to be affected by the action;
 - and
 - (b) examine how the World Heritage values of the property might be affected; and
 - (c) provide for adequate opportunity for public consultation.
- 3.04 An action should not be approved if it would be inconsistent with the protection, conservation, presentation or transmission to future generations of the World Heritage values of the property.
- 3.05 Approval of the action should be subject to conditions that are necessary to ensure protection, conservation, presentation or transmission to future generations of the World Heritage values of the property.
- 3.06 The action should be monitored by the authority responsible for giving the approval (or another appropriate authority) and, if necessary, enforcement action should be taken to ensure compliance with the conditions of the approval.

Endnotes

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Aerial view of the Murujuga Cultural Landscape. © K. Mulvaney

