



Guniyan Binba Conservation Park

Draft joint management plan
2019



Department of Biodiversity, Conservation and Attractions

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ISSN 978-1-921703-87-4

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The recommended reference for this publication is:

Department of Biodiversity, Conservation and Attractions 2019, Guniyan Binba Conservation Park draft joint management plan 2019, Department of Biodiversity, Conservation and Attractions, Perth.

This document is available in alternative formats on request.

Front cover artwork:

Nagulagun-buru - Saltwater Country by Martha Lee.

Yawuru dedication

The Yawuru story is one of resilience and pride. We recognise all the old people who carried the stories from Bugarrigarra, walked our lands, fished and hunted and survived from the water places.

Those who gave evidence in court and worked tirelessly to negotiate the Yawuru Native Title Global Agreement we acknowledge with pride. We owe the benefits of today to our senior people who have gone before us. In the face of policies and practices of successive governments who sought to destroy our culture and extinguish our traditional rights, Yawuru people across many generations continued to practice customary law, speak our language and draw on the wisdom and

knowledge of our traditions and customs. The Yawuru people have managed our country, including our waters, and cared for our society from time immemorial.

The senior people are the heroes of the Yawuru story and it is because of them that the younger Yawuru people living today are able to feel the pride and strength of being part of the community of Yawuru native title holders. While we are many individuals with strong associations to family it is the connection to each other as a community that gives us the strength to carve out our future destiny in a modern world to achieve mabu buru, mabu liyan, mabu ngarrangunil.

by Patrick Dodson, Nyamba Buru Yawuru Chair, October 2013

Invitation to comment on the draft joint management plan

This draft joint management plan has been released for a three-month period to provide the public with an opportunity to comment on the how the Guniyan Binba Conservation Park is proposed to be managed over the next ten years.

To ensure your submission is as effective as possible:

- be clear and concise
- refer your points to the page numbers or specific sections in the plan
- say whether you agree or disagree with any or all of the management objectives and strategies – clearly state your reasons, particularly if you disagree
- give sources of information where possible
- suggest alternatives for those aspects of the plan with which you disagree.

The draft joint management plan will be reviewed in light of the submissions according to the criteria outlined below. A summary of public submissions will be made available along with the final management plan.

The management plan may be amended if a submission:

- provides additional information of direct relevance to management
- indicates a change in (or clarifies) government legislation or management policy
- proposes strategies that would better achieve management objectives
- indicates omissions, inaccuracies or a lack of clarity.

The management plan may not be amended if a submission:

- clearly supports proposals in the plan or makes general or neutral statements
- refers to issues beyond the scope of the plan
- refers to issues that are already noted within the plan or already taken into consideration during its preparation
- is one among several widely divergent viewpoints received on the topic but the approach in the plan is still considered the best option
- contributes options that are not feasible (generally due to conflict with legislation or government policy)
- is based on unclear or factually incorrect information.

Submissions are welcome during the public comment period and can be made:

- online at www.dpaw.wa.gov.au/parks/management-plans/draft-plans-open-for-public-comment
- or by writing to:

Plan Coordinator Guniyan Binba Conservation Park
Department of Biodiversity, Conservation and Attractions
Parks and Wildlife Service
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Summary

This draft joint management plan has had several important precursors. In April 2006, the Federal Court of Australia determined Yawuru people to be the recognised native title holders for lands and waters around Broome.

Three years of negotiation with the State Government followed the determination, and in February 2010, two Indigenous land use agreements (ILUAs) were signed between Yawuru Registered Native Title Body Corporate (Yawuru RNTBC), the Government of Western Australia, and other parties. The agreements included the creation and joint management of the Yawuru conservation estate, which includes marine and terrestrial components.

This draft joint management plan is one of a suite of integrated and complementary conservation estate joint management plans being prepared in accordance with the ILUAs and the associated Joint Management Agreement. This plan being prepared under the *Conservation and Land Management Act 1984* (CALM Act), will apply to the Guniyan Binba Conservation Park¹, a component of the broader Yawuru conservation estate, an area which is to be managed for the purpose of conservation, recreation and traditional and customary Aboriginal use and enjoyment. This document has been prepared on behalf of the Conservation and Parks Commission of Western Australia, and Yawuru Park Council (Park Council), a body comprising representatives of Yawuru RNTBC, the Department of Biodiversity, Conservation and Attractions (the department), and the Shire of Broome. All the joint management parties have collaborated on the development of the draft joint management plan which describes proposed management of the Guniyan Binba Conservation Park for adoption in a final management plan after consideration of public submissions.

Section 1 of the draft plan introduces the management setting and highlights the relationship that Yawuru people have to their country. It also elaborates on the native title determination, relevant aspects of the ILUAs, joint management arrangements and the legislative context, including legal recognition of values of international and national significance. In this introductory section, the role of the *Yawuru cultural management plan*² as a key guiding document for the Yawuru conservation estate management plans is highlighted.

Sections 2 and 3 explain requirements for assessing the effectiveness of management and set out the vision that has been identified for the broader Yawuru conservation estate, including the Guniyan Binba Conservation Park.

Sections 4, 5, 6 and 7 of the document describe key cultural, ecological and socio-economic values and management issues.

Recognition of Yawuru cultural values and context of the area is a dominant feature of this management plan. The cultural significance of Broome was recognised in an expert report to the Federal Court during native title deliberations, and said to be comparable to a Jerusalem, Mecca or Varanasi for a significant part of Aboriginal Australia (Sullivan cited in Yawuru RNTBC 2011).

Parts of the Guniyan Binba Conservation Park are included within the West Kimberley National Heritage Area. The Willie Creek wetland complex, also partly within the Guniyan Binba Conservation Park is recognised as a nationally important wetland. Key values of the Guniyan Binba Conservation Park include:

- sandy beaches on which the flatback turtle, a threatened species, nests
- mangroves that provide a range of ecosystem services and important habitat for diverse fauna, including threatened species and bird species that are the subject of international agreements and
- coastal recreation opportunities within proximity to Broome.

Management to conserve and enhance these values over the life of this plan will primarily focus on implementing visitor information and education programs, and ensuring visitors are provided with well-defined sustainable pedestrian and vehicular access.

While management objectives and strategies are presented for each set of values identified in this plan, key performance indicators (discussed further in Section 2) are only specified for those values that have been identified as being of highest priority for management over the next 10 years, and include:

- a set of key Yawuru cultural values
- marine turtles and
- mangroves.

¹ Reserve 51162, a Class A Section 5(1)(h) Reserve covering 17, 573 hectares

² The term 'Yawuru cultural management plan' is used throughout this document to refer to the Walyjala-jala buru jayida jarringggun buru nyamba Yawuru ngan-ga mirli mirli (*Planning for the future: Yawuru cultural management plan*) (Yawuru RNTBC 2011).



Coconut Wells tidal area. Photo – Shire of Broome.

1.0 Introduction and management context

This draft joint management plan describes proposed management for the Guniyan Binba Conservation Park, one part of the Yawuru conservation estate that has recently been established around Broome (see Map 1).

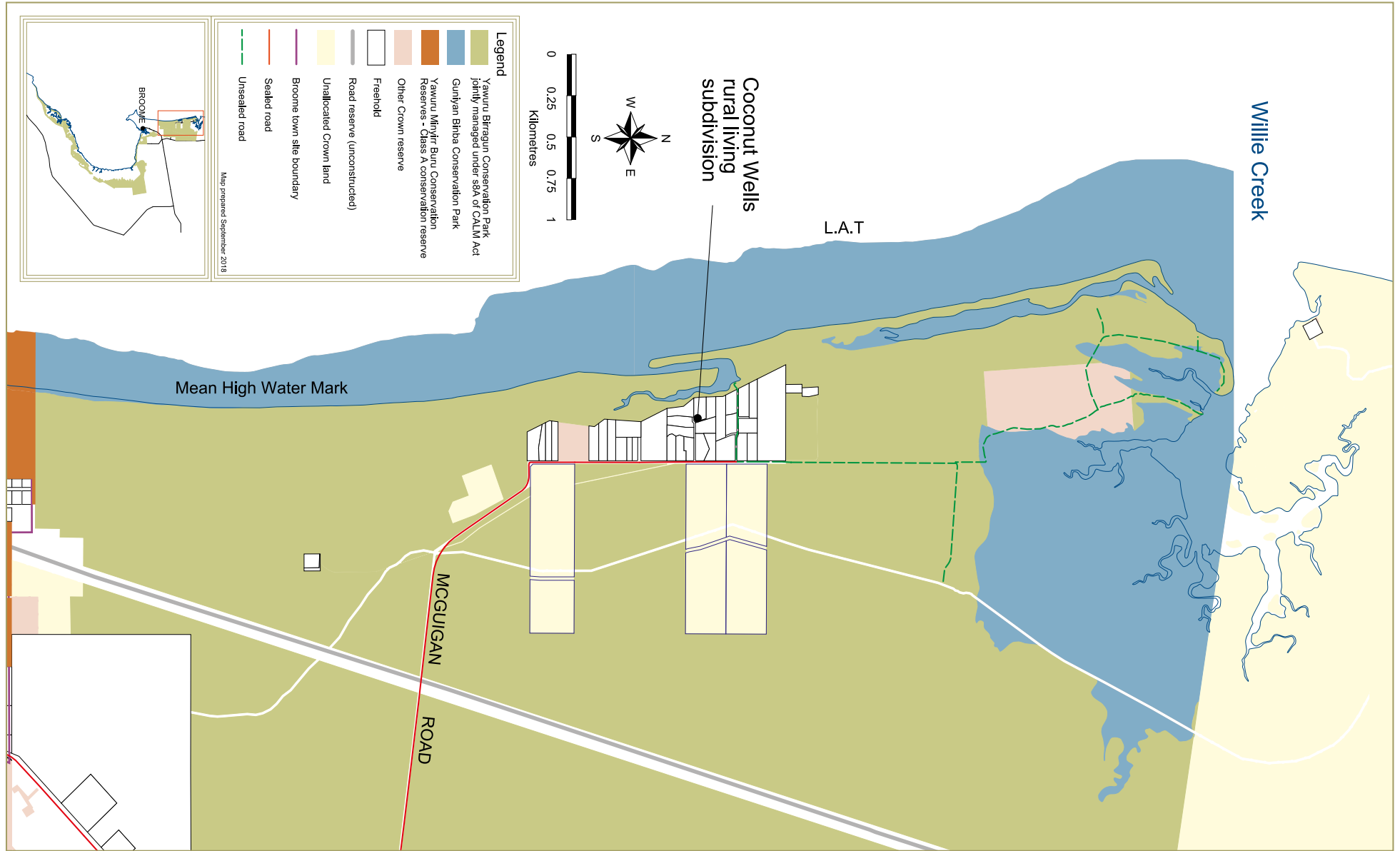
The Conservation Park comprises an intertidal area, located immediately north of the Broome town site, with the northern part of the reserve extending into Willie Creek. This plan is one of a suite of management plans that will apply to the Yawuru conservation estate (the different Yawuru conservation estate planning areas are shown in Map 2). The Yawuru conservation estate is managed by Yawuru RNTBC in partnership with several joint management partners. All the Yawuru conservation estate is jointly managed, although the management parties and arrangements vary across the conservation estate.

This draft plan has been prepared in accordance with Part V Division 1 of the CALM Act on behalf of Yawuru RNTBC, the Conservation and Parks Commission and the Shire of Broome; the parties that jointly hold 'care, control and management' of the Guniyan Binba Conservation Park.

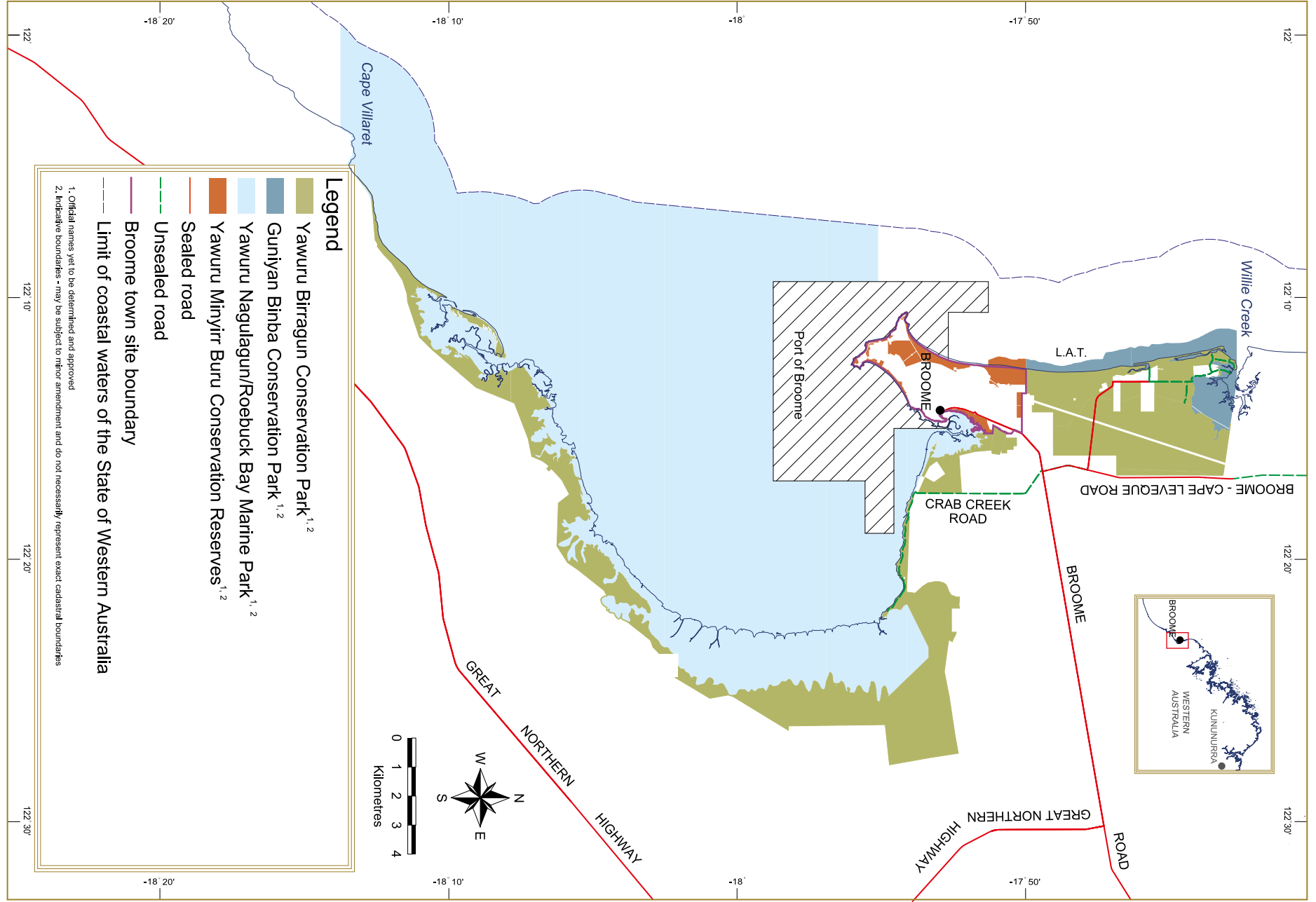
While different parts of the Yawuru conservation estate are subject to differing tenure and management arrangements, the values of the terrestrial and marine areas are intrinsically linked. Planning and management will be integrated, complementary and as seamless as possible across the various components of the conservation estate.

Some Yawuru names (e.g. for places, plants and animals) are used throughout this plan in italicised text. Yawuru names for places have been included throughout this plan as well as official names; the Yawuru place names are however not official or formally recognised. It should be noted that Yawuru language can be spelt in alternative ways. A glossary of Yawuru language names used in this plan is provided on page 41.





Map 1: Location of Guniyan Binba Conservation Park and surrounding tenure.



Map 2: Yawuru conservation estate components

1.1 *Yawuru buru, Yawuru ngarrungunil* – Yawuru country, Yawuru people

For thousands of years Yawuru people have lived along the foreshore of Roebuck Bay, across the pindan plains, as far inland as the *Walgarr* (the Edgar Ranges) and along the fringes of the Great Sandy Desert. Yawuru country is land and sea moulded by the cycle of seasonal change, and it is a living cultural landscape with which Yawuru people have a dynamic and enduring relationship.

In Yawuru law everything comes from *Bugarrigarra*, the time when creative beings traversed the country, naming the landscape, defining the languages and setting down rules and customs. Created and given form by *Bugarrigarra*, country is the source of spirit, culture, language, and it is where spirits return on death. From *Bugarrigarra* Yawuru people have responsibility to look after the country and to ensure that their traditions are passed on to future generations. Every time Yawuru people go out on country, hunting and fishing, they live culture – these activities are an expression of culture and enable Yawuru people to reconnect with country, spirit places, ancestors and *Bugarrigarra*.

The relationship of Yawuru people to country is at the heart of their cultural responsibilities and being. This is expressed through *liyan*. *Liyan* comes from Yawuru peoples' connection to country, ancestors and Yawuru way of life. It reflects a sense of belonging to Yawuru society, and represents the feeling people hold, individually and collectively, particularly when Yawuru people are on their country.

'Liyan is about relationships—with country, family, community. It is what gives meaning to people's lives. Yawuru peoples' connection to country and joy of celebrating our culture and society is fundamental to having good liyan.'

Patrick Dodson (Yawuru RNTBC 2011)



Yawuru Country Manager, Pius Gregory, working on country in Willie Creek. Photo - Nyamba Buru Yawuru Ltd.

Mabu liyan (good *liyan*) expresses Yawuru peoples' emotional strength, dignity and pride. The guiding principle for good management of Yawuru country is that Yawuru people must maintain good, clear *liyan* with the country within the modern, ever-changing world. To ensure Yawuru people can keep *mabu liyan* they have to:

- visit country
- respect spirits abiding in country
- continue cultural traditions
- respect *Bugarrigarra*
- look after all the plants, animals and other resources that are part of country
- maintain and protect sacred places
- foster a relationship with country
- assume cultural responsibility as individuals and collectively for the future use and management of Yawuru country and
- achieve balance between keeping things as they are and developing the country.

Yawuru people want to generate an understanding of how they feel about and relate to country, with respect for *Bugarrigarra* and cultural traditions and practices, and how non-Yawuru people can respect this.

For countless generations Yawuru people managed country sustainably, relying on their intimate knowledge of the natural environment, and applying customary law and practices passed down from ancestors. Ancestors hold the collective communal wisdom and knowledge passed through families and Yawuru responsible leaders. This knowledge is passed on to their children when they go hunting, fishing, gathering and camping, as Yawuru people have always done. Understanding the subtle changes in country and following the seasons is part of Yawuru cultural heritage and provides Yawuru people with a guide to where and how to harvest and look after the resources of country. Because Yawuru activities change in response to the annual cycle of the seasons, Yawuru people believe their way of living has minimal impact on the environment. They want to use this knowledge to guide and inform successful conservation and management of Yawuru land and sea.

In recent times Broome has undergone massive transformation as population, infrastructure, housing and industry have expanded. Yawuru people, the native title holders of their country, are aware of the many challenges such changes present for managing country and, in a mutually respectful partnership with others, are well placed to meet them.

1.2 The Broome Community

Broome, located on the west coast of the Kimberley, has a unique cultural and natural history. The Shire of Broome has a resident population of approximately 16,000, 28% of whom are Indigenous.

Broome has a strong, creative and multicultural heritage descended from Asian pearling crews, European settlers and other Aboriginal people from across the Kimberley who have visited and settled in Yawuru country over many centuries.

In the mid-1800s, rich pearl shell beds in Roebuck Bay drove colonial settlement. The town site of Broome was gazetted on 21 November 1883 and it grew to be an international pearling capital. Over time the role of pearling as a backbone industry for the town has dwindled, however the cultured pearl industry is important for tourism. Broome is a popular tourist destination and hosts up to 40,000 visitors annually. Broome is also an entry point to the Kimberley region for visitors from Australia and overseas.

Since the 1970s, Broome has become more accessible and has grown in population and general wealth. The port supports cruise ships and the beef export industry as well as operating as a base for the West Kimberley oil and gas industry. Broome is now the administrative and service centre for the Kimberley and in tandem with industry growth, facilities and services for residents have also grown. Industries include health, education, administration, recreation, capital works, and services for the Aboriginal communities.



1.3 Native title determination and Indigenous land use agreements

With the High Court decision in *Mabo and Wik*, the Commonwealth Government introduced the *Commonwealth Native Title Act 1993* (Native Title Act).

Subsequently, Yawuru began a 12-year journey to lodge and determine their native title rights by way of court action and negotiations with the State Government. On 28 April 2006, the Federal Court of Australia determined Yawuru people to be the recognised native title holders of the lands and waters in and around Broome.

In February 2010, the Yawuru RNTBC, the Government of Western Australia, Shire of Broome and other relevant parties signed two ILUAs – the *Yawuru Prescribed Body Corporate Indigenous Land Use Agreement* and the *Yawuru Area Agreement Indigenous Land Use Agreement* (National Native Title Tribunal 2010a, 2010b). An ILUA is an agreement under the Native Title Act between a native title group and others about the use and management of land and waters. These resolved compensation issues and clarified that native title remained for the Yawuru people, as well as heritage issues about land required for the future development of Broome. The ILUAs provide for the establishment and joint management of the Yawuru conservation estate.

More information on native title, the Yawuru people's journey for native title determination and the ILUAs can be found on the website for the National Native Title Tribunal (National Native Title Tribunal 2010c) and in the *Yawuru cultural management plan*.

'History hasn't always been kind to Yawuru people. We had no say when our land, our home, was taken from us and we were pushed towards the edges. But we stayed strong and true to our culture. We can now take our rightful place in the Broome community.'

Gajai Frank Sebastian (Yawuru RNTBC 2011)



Dianne Appleby explains the cultural importance of Gundurung (mangroves) in the Guniyan Binba Conservation Park. Photo – Kandy Curran.

1.4 *Walyjala-jala buru jayida jarringgun buru nyamba Yawuru ngan-ga mirli mirli* (Planning for the future: Yawuru cultural management plan)

The *Yawuru cultural management plan* was developed by the Yawuru RNTBC, as agreed in the ILUAs, to provide a foundation document to guide planning and management of the Yawuru conservation estate.

The plan addresses Yawuru customs, practices and customary law, and provides detail on Yawuru policies, visions and requirements to be considered during the development of management plans for the Yawuru conservation estate.

As a comprehensive articulation of the aspirations and responsibilities of Yawuru native title holders, the *Yawuru cultural management plan* is an authoritative information source for the various joint management partners and the wider community. The development of the *Yawuru cultural management plan* involved all facets of the Yawuru organisational system and it will remain a key document for the joint management of the Yawuru conservation estate.

The *Yawuru cultural management plan* was a primary information source for many of the culturally based concepts and values outlined in this draft joint management plan. Copies of the *Yawuru cultural management plan* may be obtained through Nyamba Buru Yawuru Ltd (contact details available at the end of this document).



The cultural management plan for Yawuru coastal country and the Yawuru Conservation Estate. Photo – DBCA.

1.5 Holistic management across Yawuru conservation estate

While this management plan is one of a suite of joint management plans that will apply to the Yawuru conservation estate, the cultural, ecological and socio-economic values of the Yawuru terrestrial and marine conservation reserves are implicitly linked.

As such, a well-integrated management approach capable of protecting and managing the values in a culturally appropriate manner across the Yawuru conservation estate is required. Management objectives, strategies, performance measures and targets identified in this draft joint management plan will be complementary to those for the other Yawuru conservation estate management plans.

The various components of the Yawuru conservation estate are subject to varying tenure arrangements and therefore a suite of management plans will apply to the various components of the Yawuru conservation estate (shown on Map 2)³:

- *Guniyan Binba Conservation Park management plan (this plan)
- *Yawuru Birragun Conservation Park management plan
- *Yawuru Minyirr Buru Conservation Park management plan
- *Yawuru Nagulagun/Roebuck Bay Marine Park management plan.

The other management plans have been completed. These plans are all informed by the *Yawuru cultural management plan*.

³ *Some names not yet official.

1.6 Joint management arrangements for the Guniyan Binba Conservation Park

The Guniyan Binba Conservation Park, a Class 'A' Section 5(1)(h) CALM Act reserve, has been placed under the joint care, control and management of Yawuru RNTBC, the Conservation and Parks Commission and the Shire of Broome.

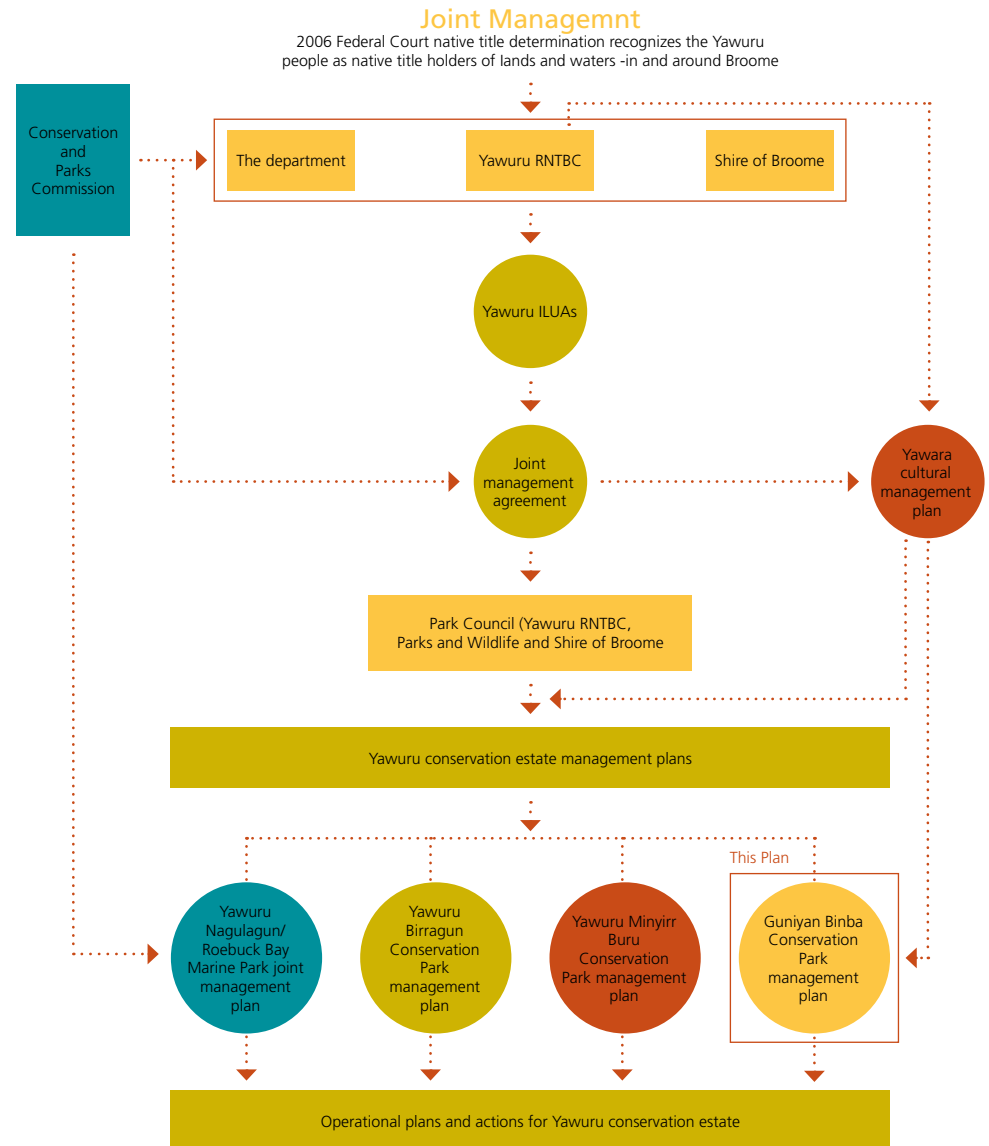
The landward boundary of the Guniyan Binba Conservation Park is at the High Water Mark and the seaward boundary extends to Lowest Astronomical Tide. This reserve is to be managed for the purposes of 'conservation, recreation and traditional and customary Aboriginal use and enjoyment'. In addition, management plans for any CALM Act land, such as the Guniyan Binba Conservation Park, shall have the objective of 'protecting and conserving the value of the land to the culture and heritage of Aboriginal persons...' (as described in section 56(2) of the CALM Act).

The Joint Management Agreement, forming part of the ILUAs, describes various management arrangements for the Yawuru conservation estate including management principles, roles and responsibilities for each party, decision-making processes and administrative functions. In accordance with the Joint Management Agreement, the Park Council has been established to facilitate joint management of the conservation estate. The Park Council comprises representative members from the Yawuru RNTBC, the department and the Shire of Broome, with administration of the conservation estate having regard to the differing joint management arrangements and associated responsibilities. As relevant to the differing joint management arrangements, the Park Council's role (shared with the Conservation and Parks Commission of Western Australia) includes:

- preparation of management plans for the jointly managed areas, ensuring these are consistent with the vision and policies set out in the *Yawuru cultural management plan*
- strategic monitoring of implementation of the joint management plan(s) and
- assessment of the effectiveness of joint management.

Figure 1 depicts the joint management relationship.

Figure 1: Joint management relationships



1.7 Legislative context

The plan has been prepared in accordance with Part V Division 1 of the CALM Act and the Joint Management Agreement. The plan has been developed through collaboration of all the joint management parties and has been informed by the *Yawuru cultural management plan*.

It will guide management of the Guniyan Binba Conservation Park for 10 years from the date of gazettal, or until it is replaced with a new plan. The plan may be amended if necessary, in accordance with section 61 of the CALM Act, following decision of the Park Council.



Flat Rock, Willie Creek. Photo – Sarah Mullineux, DBCA.

Management of the Guniyan Binba Conservation Park needs to consider the Yawuru native title rights to hunt and gather for personal, domestic or non-commercial communal purposes in the conservation estate as recognised in the native title determination. The CALM Act, the *Biodiversity Conservation Act 2016*

(Biodiversity Conservation Act), and associated regulations include provisions for Aboriginal people to take flora and fauna and undertake a range of other activities for Aboriginal customary purposes.

In management of the Guniyan Binba Conservation Park, a range of legislative requirements apply or could apply in addition to requirements of the legislation that is administered by the department. This includes, for example, legislation applicable to fisheries management (e.g. *Fish Resources Management Act 1994*), maritime transport, and heritage protection. Some specific requirements are highlighted in relevant sections throughout this plan.

The Guniyan Binba Conservation Park includes values that have been recognised as 'matters of national environmental significance' and therefore given additional protection under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Any matter that will have or is likely to have a significant impact on a matter of national environmental significance, requires assessment and approval under the EPBC Act. More specifically some of the relevant Guniyan Binba Conservation Park values are:

- areas included in the West Kimberley National Heritage Area
- migratory species
- values the subject of national or international agreements such as the Japan—Australia Migratory Birds Agreement, the China—Australia Migratory Birds Agreement or the Bonn Convention
- nationally threatened species and
- listed marine species (including crocodiles, marine turtles and birds).

Parts of the Guniyan Binba Conservation Park included within the boundary of the West Kimberley National Heritage Area are shown in the figure below. The listed area includes the intertidal zone of the Dampier Coast where dinosaur tracks and associated fossils are exposed in the Broome Sandstone (see *Geology, geomorphology and hydrology*). These tracks and fossils provide valuable insights into the ecology of the Mesozoic (DSEWPC 2011a). Broome Sandstone occurs in the Guniyan Binba Conservation Park, although, to date, no dinosaur tracks or fossil have been found in exposed areas. Over time, with shifting sand and soil movements, dinosaur track ways and fossils may become exposed in the Broome Sandstone layer and will require adequate protection if exposed in the future.

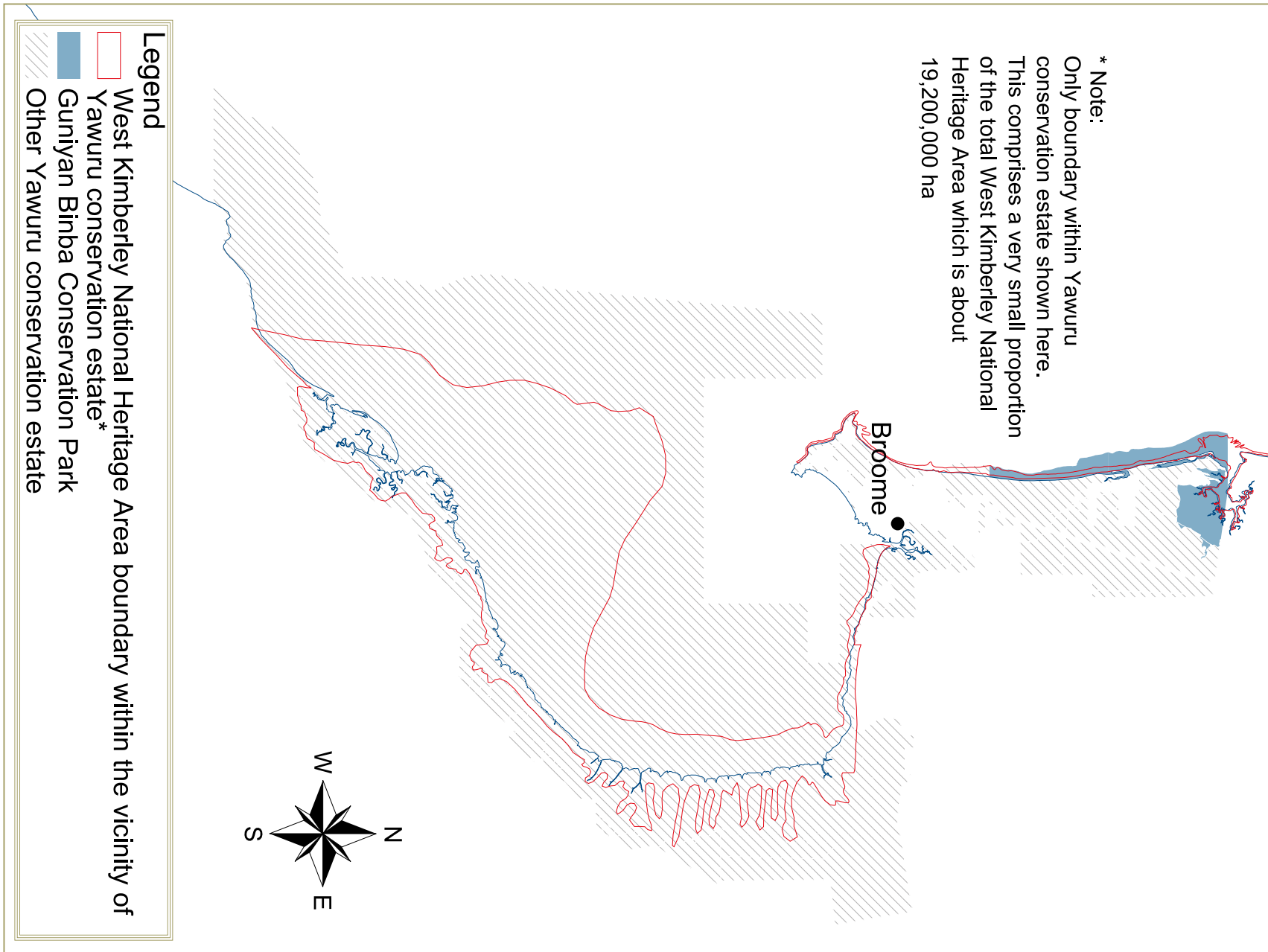


Figure 2: West Kimberley National Heritage Area boundaries near the Guniyan Binba Conservation Park

2.0 Performance assessment

Mechanisms to assess the implementation and effectiveness of management are important components of an adaptive management framework and signal where approaches may need to be altered if management objectives are not being met.

Sections 4, 5, 6 and 7 describe the main cultural, ecological and socio-economic values of the Guniyan Binba Conservation Park and a set of Key Performance Indicators (KPIs) each comprising performance measures, targets and reporting requirements, have been identified for some of these values. The KPIs presented throughout the plan reflect those values that were identified during the planning process as being of highest priority for management. These, and/or other measurable outcomes will be used for performance assessment of this management plan.

As a relatively newly created conservation reserve, description of baseline conditions will be important in this initial management plan, and this is reflected in that the plan includes KPIs that are focused on assessing achievement of management outputs (e.g. availability of baseline data and reports) as well as management outcomes (e.g. protection of a particular value). Protocols for measuring and reporting on KPIs (e.g. details of the data required, calculation methods and data presentation) will be identified in the research and monitoring program to be developed for the Yawuru conservation estate.

A portfolio will be maintained showing evidence of those areas where the management plan is being successful and those where changes are needed. The following are examples of evidence of implementation of this plan that may be used for assessment purposes:

- specific, quantitative monitoring of significant assets
- series of photographs, mapping or other imagery which show whether spatial and temporal changes have occurred
- checklists
- surveys
- incident investigation reports or records and/or
- other written documents or forms.



Aerial photography - Coconut Wells Lagoon. Photo - Nearmap aerial photography October 2018.

3.0 Vision and goals

The vision for the Guniyan Binba Conservation Park is:

Yawuru people and their partners working together with the wider community to restore, protect and maintain the cultural, natural and recreational values of the Guniyan Binba Conservation Park for the enjoyment and benefit of present and future generations of Yawuru people and the wider population.

A set of strategic goals has been developed for the Guniyan Binba Conservation Park. These recognise Yawuru people are the native title holders, the legally stipulated purposes for the reserve, and its values of international and national conservation significance. These strategic goals provide a link between the vision statement and the desired outcomes expressed through the objectives identified in this plan.

The strategic goals for management of the Guniyan Binba Conservation Park are to:

- uphold and respect Yawuru people's culture and knowledge of country
- provide for sustainable traditional and customary Aboriginal use and enjoyment
- protect and conserve the value of the land to the culture and heritage of Aboriginal persons
- conserve features recognised as being of special, international and national conservation significance
- conserve biodiversity and maintain ecological integrity and
- provide for recreation that is consistent with conservation of the area's cultural and ecological values.



4.0 Plan implementation

Day to day and on-ground management to implement this management plan for the Guniyan Binba Conservation Park is carried out by the department, through the Yawuru joint management program and the Yawuru Rangers who are trained and employed by the department.

The joint management partners will strategically monitor implementation of the management plan through the Park Council as described in the joint management agreement.

This plan describes proposed management of the Guniyan Binba Conservation Park at a broad strategic level, for the next 10 years or until it is replaced with a new management plan. To help facilitate implementation of the plan, linked and collaboratively developed operational level plans and documents that detail more specific and frequently adapted guidance consistent with the plan may also be developed as necessary.

Management strategies in this plan have been prioritised as high (H), medium (M) and low (L) to indicate their relative importance, although all are intended to be implemented over the life of the plan. The prioritisation of strategies is based on the best available information at the time the plan is developed and may change during the life of the plan.

'...the Broome region, in religious terms, [is] intensely crowded. It may not be an exaggeration, and may give some indication of its uniqueness, to say it is something of a Jerusalem, Mecca or Varanassi [for] a significant part of Aboriginal Australia'

Sullivan cited in Yawuru RNTBC 2011



5.0 Guniyan Binba Conservation Park Yawuru cultural values

Information in this section has been obtained from the *Yawuru cultural management plan* and discussions with Yawuru representatives.

The values described in this section are those that Yawuru RNTBC identified in Section 2.3 of the *Yawuru cultural management plan* (Yawuru RNTBC 2011). Further details about Yawuru cultural values and concepts are available in the *Yawuru cultural management plan*.

Yawuru cultural values stem from the relationship between Yawuru people and Yawuru country. As with the country itself, these values arise from *Bugarrigarra*, which gave form to the land and seascape, determined law and gave Yawuru people the responsibility for looking after Yawuru country.

The Broome area contains significant places for many Aboriginal people as recorded in the secret and sacred narratives, sometimes called 'songlines'. In Yawuru country the *Bugarrigarra* laid down three traditions of law which hold esoteric knowledge of country and guide customary practices. The Northern Tradition is allied with the northern areas and the people who live there, particularly the Bardi. The Southern Tradition is associated with the lands and peoples further south and inland including the Karajarri, Nyikina, Mangala and Nyangumarta. The third tradition arises in Broome itself and travels east toward the desert and Uluru in central Australia. Knowledge and practices of all traditions is shared with groups outside Yawuru country. The cultural significance of the area was recognised in an expert report to the Federal Court during the first Yawuru native title:



5.1 Living cultural landscape

According to Yawuru law everything comes from *Bugarrigarra*, the creative epoch in which the world was given form and meaning.

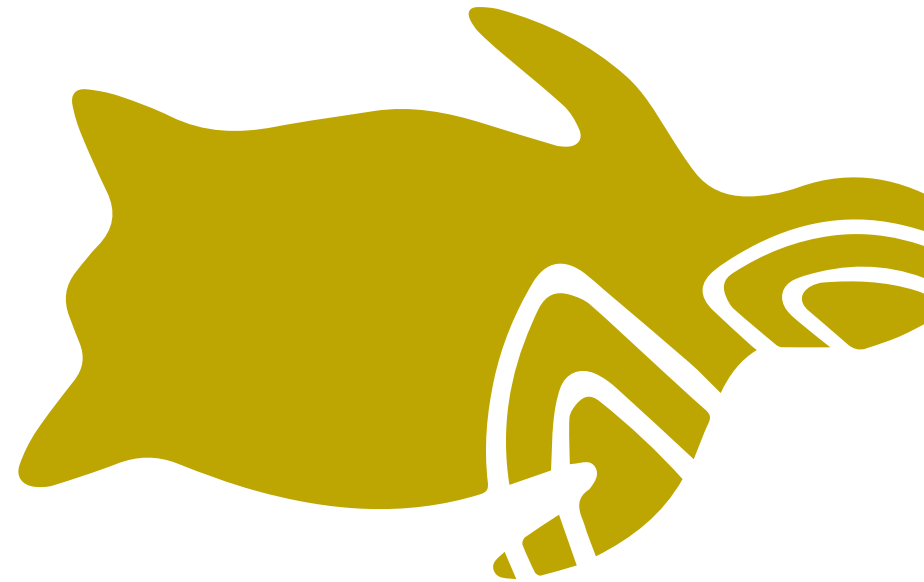
During this time, ancestral beings travelled through country, naming places and creating the features of the land, waters and skies, introducing rules and rituals associated with particular areas, the regional languages, the seasons and their cycles. *Bugarrigarra* narratives form an intricate network of 'songlines' and 'dreaming' tracks, which traverse Yawuru country.

In this way Yawuru *buru*, or 'Yawuru country', means much more than just the physical land to which Yawuru people belong. *Buru* is the physical expression of *Bugarrigarra*, in which the features of Yawuru country were formed. As *Bugarrigarra* beings created and named places they endowed them with significance. The associated narratives and rituals recount their activities and link Yawuru people to particular areas of country for all time. These narratives ascribe metaphysical meaning to all aspects of physical reality; the landscape, under the ground, the sky, the water, the diverse plants and animals, and ecosystems.

Like all living things, Yawuru people are believed to arise from country. Certain places in Yawuru country have *rayi*, a life-giving essence that creates Yawuru spirit-children. This connection of a spirit-child to a specific place, its *bugarri*, is typically discovered through dreams or unusual events. Throughout life a Yawuru person remains connected to their *rayi* place, the place that gave them life.

Other metaphysical beings are known to be linked with certain places but can also move around and be unpredictable. *Jurru* are snake-like beings associated with salt water and fresh water and protect Yawuru country.

Bugarrigarra is not detached from contemporary life. It continues to exist and is the spiritual force that shapes ongoing cultural values and practice, relationships, obligations and responsibilities. Life since colonial times has contributed to the continuing evolution of the living cultural landscape that is Yawuru country. The influence of the pearling industry was particularly strong, bringing Aboriginal and Asian people together as indentured labour, living and working together and intermarrying. These events and other heritage areas such as burial sites, contemporary camping places, mission areas and places of work that shaped the lives of Yawuru people have become part of the story.



'When we die our rayi return to that place in our country. When we visit places, we know the rayi of our ancestors are there, guiding us and looking after country, watching the behaviour of our people.' (Yawuru RNTBC 2011).

Summary of management arrangements for living cultural landscape

Management objectives	<ol style="list-style-type: none"> 1. To ensure that activities within the Guniyan Binba Conservation Park do not adversely affect opportunities for Yawuru people to have ongoing cultural connection and expression. 2. To promote increased understanding of Yawuru values and concepts of living cultural landscape. 3. To protect and conserve the value of the Guniyan Binba Conservation Park to the culture and heritage of Yawuru people. 	
Management strategies	<ol style="list-style-type: none"> 1. Carry out or support cultural mapping projects that spatially and conceptually characterise Yawuru cultural values within the Guniyan Binba Conservation Park. 2. Ensure cultural heritage sites are protected. 3. Assess human activities that may inhibit the protection of the area as part of a living cultural landscape and implement management strategies to address any problems as necessary. 4. Develop and implement education and interpretation programs to inform visitors to the Guniyan Binba Conservation Park about the value of the area as a Yawuru living cultural landscape. 5. Develop and implement methodology to assess Yawuru's level of satisfaction that opportunities for ongoing cultural connection of Yawuru people are not significantly disrupted due to management activities (or a lack of appropriate management activities) (e.g. questionnaire, survey). 	<p>H</p> <p>H</p> <p>H</p> <p>H</p> <p>H</p>
Key performance indicators		
Performance measures	<ol style="list-style-type: none"> 1. The Yawuru community's level of satisfaction that opportunities for ongoing cultural connection of Yawuru people are not significantly disrupted due to management activities (or a lack of appropriate management activities) in the Guniyan Binba Conservation Park. 2. Yawuru people's complaints relating to reduced opportunities for ongoing cultural connection because of management activities (or a lack of appropriate management activities) in the Guniyan Binba Conservation Park. 3. Information, education and interpretation programs for the Guniyan Binba Conservation Park incorporates, in a prominent place, material about Yawuru values and concepts of living cultural landscape. 	
Targets	<ol style="list-style-type: none"> 1. The Yawuru community's level of satisfaction that opportunities for ongoing cultural connection of Yawuru people are not significantly disrupted due to management activities (or a lack of) is high. 2. The number of unresolved complaints from Yawuru people relating to reduced opportunities for ongoing cultural connection because of management activities (or a lack of appropriate management activities) in the Guniyan Binba Conservation Park per reporting period declines over the life of the plan. 3. Yawuru community's level of satisfaction that visitors have been provided with opportunities to increase their understanding about Yawuru values and concepts of living cultural landscape. 	
Reporting requirements	Annually	

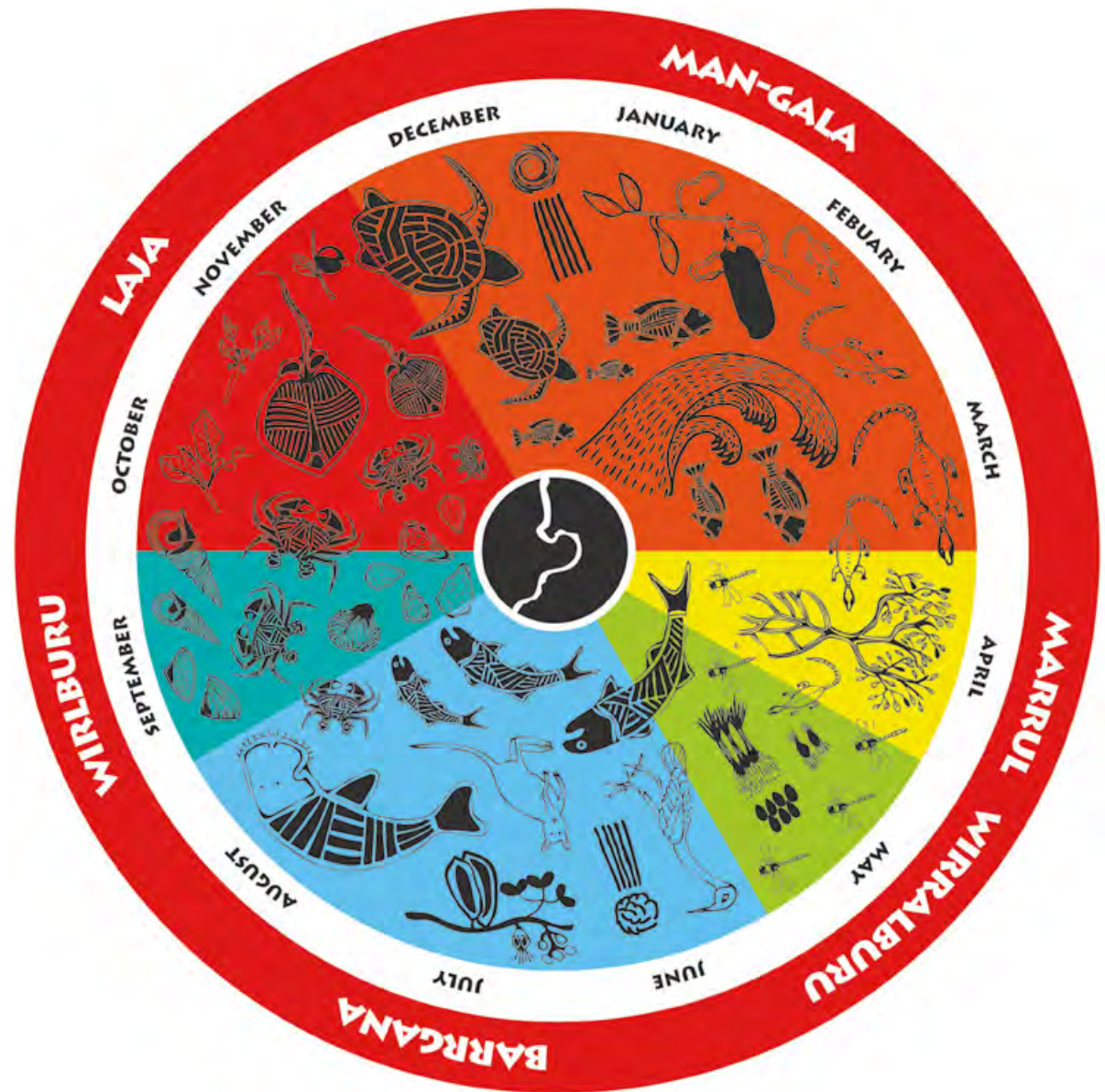
5.2 Traditional ecological knowledge

Like many Indigenous peoples across the globe, Yawuru people have a deep understanding of the flora, fauna, landscape features, seasons and cycles that make up their country, and changes that have occurred over time.

Developed over millennia, this knowledge is deeply embedded within Yawuru culture and is often expressed through the stories and law that govern the relationships between people and country. Having used this knowledge to not only live off the land, but to sustain this lifestyle for thousands of years, there is much for conservation science and land management to gain from traditional ecological knowledge.

As with other aspects of Yawuru life and resource harvesting, knowledge of resources is largely underpinned by the six Yawuru seasons and the life cycles of individual species (see Figure 3). Cultural rules and responsibilities established from this knowledge provide guidance on the use of country, such as what and when particular species should be harvested, how to tell when they are 'fat' or 'ready', who should not eat certain resources, and not wasting resources.

Figure 3: Yawuru seasons



Summary of management arrangements for traditional ecological knowledge

Management objective

1. To apply Yawuru traditional ecological knowledge and integrate it with conservation science and land management.

Management strategies

- | | |
|---|---|
| 1. Document (e.g. in a database) the most important elements of Yawuru traditional ecological knowledge and investigate opportunities for integrating this with conservation science and land management. | H |
| 2. Develop processes and protocols for consulting and integrating Yawuru traditional ecological knowledge in the management of Yawuru conservation estate. | H |
| 3. Develop and implement education and interpretation programs to inform visitors to the Guniyan Binba Conservation Park about Yawuru traditional ecological knowledge. | H |
| 4. Develop and implement methodology to assess Yawuru's level of satisfaction that traditional ecological knowledge is being consulted and adopted into management (e.g questionnaire, survey). | H |

Key performance indicators

Performance measures

1. Yawuru community level of satisfaction that traditional ecological knowledge is being consulted and adopted into management of the Guniyan Binba Conservation Park.
2. Documented evidence that traditional ecological knowledge about the Guniyan Binba Conservation Park has been consulted and adopted.
3. Information, education and interpretation programs for the Guniyan Binba Conservation Park incorporates, in a prominent place, material about Yawuru traditional ecological knowledge and how this has been integrated with conservation science and land management.

Targets

1. Yawuru community is satisfied that traditional ecological knowledge is being consulted and adopted into management of the Guniyan Binba Conservation Park.
2. All documents relating to the Guniyan Binba Conservation Park contain evidence that traditional ecological knowledge has been consulted and adopted.
3. Level of awareness of Yawuru traditional ecological knowledge among visitors to the Guniyan Binba Conservation Park is high.

Reporting requirements

Annually.



5.3 Enjoyment of country and customary practices

Although Yawuru country extends more than a hundred kilometres inland, Yawuru people consider themselves to be saltwater people as they would travel and live along the coast, exploiting the resources of *nagulagun buru* – their sea country – according to seasons.

Therefore, the ability to have access to the coast and sea within the conservation estate for customary practices is particularly important.

As the recognised Yawuru native title holders, Yawuru people have the right to enjoy Yawuru country and maintain their customary practices.

Summary of management arrangements for enjoyment of country and customary practices

Management objectives	1. To recognise and support Yawuru peoples’ right to continue customary practices and to benefit from their country consistent with the purpose for the conservation estate.	
Management strategies	1. Assess factors that may inhibit Yawuru peoples’ rights to enjoy country or maintain their customary practices and implement management actions to address issues as necessary.	H
	2. Develop and implement education and interpretation programs to inform visitors to Guniyan Binba Conservation Park about Yawuru rights, as the recognised Yawuru native title holders, to enjoy Yawuru country and maintain their customary practices.	H
	3. Develop and implement methodology to assess Yawuru’s level of satisfaction that they have been able to continue customary practices and benefit from country (e.g questionnaire, survey).	H

Key performance indicators

Performance measures	<ol style="list-style-type: none"> 1. Yawuru community’s level of satisfaction that they have been able to continue customary practices and benefit from country consistent with the purpose for the Guniyan Binba Conservation Park. 2. Yawuru people’s complaints relating to their ability to continue customary practices and benefit from country consistent with the purpose for the Guniyan Binba Conservation Park. 3. Information, education and interpretation programs for the Guniyan Binba Conservation Park incorporates, in a prominent place, material about Yawuru peoples’ rights to enjoy country, maintain customary practice and how this should be respected.
Targets	<ol style="list-style-type: none"> 1. The Yawuru community’s level of satisfaction that they have been able to continue customary practices and benefit from country consistent with the purpose of the Guniyan Binba Conservation Park is high. 2. The number of unresolved complaints from Yawuru people relating to their ability to continue customary practices and benefit from country consistent with the purpose for the Guniyan Binba Conservation Park per reporting period declines over the life of the plan. 3. Level of awareness of Yawuru peoples’ rights to enjoy country, maintain customary practice and how this should be respected, among visitors to the Guniyan Binba Conservation Park, is high.
Reporting requirements	Annually.

5.4 Responsibility for country

Yawuru customary law and responsibility for country is derived from *Bugarrigarra*. Through this Yawuru people maintain the right to 'speak for and look after' Yawuru country.

The relationship of Yawuru people to their country is dynamic and the country is animated and often unpredictable. The country itself, and the forces that lie within, must be respected and it is the responsibility of the Yawuru people to use its resources sustainably and ensure the protection of the country and family and others who visit. This goes to the heart of maintaining good *liyan* with the country. If Yawuru people or others do the wrong thing there will be serious consequences for Yawuru people and their families.

Central to this responsibility is looking after sacred and significant areas. To Yawuru people, significance refers to cultural heritage in the broadest terms and includes the intangible values of country and heritage. Such areas include:

- cultural (*Bugarrigarra*) areas (sites, tracks, areas), which may have cultural access restrictions
- registered sites
- areas next to cultural sites
- *rayi* sites (birth and origins – where child spirits arise from the country)
- burial sites
- seasonal hunting, fishing and harvest areas for specific species
- traditional camping areas
- water sites

'The people, the land, and the Law are three aspects of the same thing. We have a duty to look after them all and looking after one means looking after the other two as well'.

Joseph Nipper Roe Ngulibardu (Yawuru RNTBC 2011)

- historical sites and
- archaeological sites.

A Yawuru Ranger Program that has been established as agreed within the ILUAs will help Yawuru people with fulfilling their responsibilities for country. Through the Yawuru Ranger Program, members of the Yawuru community are trained and employed by the department to patrol and undertake on-ground works in the Yawuru conservation estate.



Gundurungu is the fruit from the grey mangrove, *Avicennia marina*. It is soaked in mangrove mud for 3-7 days to remove toxins, then roasted and eaten. Photo – Kandy Curran.

Summary of management arrangements for responsibility for country

Management objective	<ol style="list-style-type: none"> To facilitate and maintain the opportunity for Yawuru people to carry out their roles and responsibilities as protectors and managers of their country and culture. 	
Management strategies	<ol style="list-style-type: none"> Continue to develop the Yawuru Ranger Program and authorisation of officers for enforcement activities. Establish additional agreed cultural protocols for the management of the Guniyan Binba Conservation Park as required. Ensure management activities comply with and facilitate adherence to the agreed cultural protocols, consistent with the Yawuru Cultural Management Plan. Develop and implement sustainable harvest strategies for vulnerable species subject to customary harvesting. Develop and implement education and interpretation programs to inform visitors to the Guniyan Binba Conservation Park about significant Yawuru areas, culturally appropriate behaviours and personal safety. Investigate opportunities to increase the number of Yawuru RNTBC members involved in management of the Guniyan Binba Conservation Park. Develop and implement a methodology to assess Yawuru’s level of satisfaction that they have been able to undertake their role as protectors and managers of their country and culture in the context of jointly managed conservation estate (e.g. questionnaire, survey). 	<p>H</p> <p>H</p> <p>H</p> <p>H</p> <p>H</p> <p>H</p> <p>H</p>

Key performance indicators

Performance measures	<ol style="list-style-type: none"> Yawuru community’s level of satisfaction that they have been able to undertake their roles and responsibilities as protectors and managers of their country and culture, in the context of jointly managed conservation estate. Yawuru people’s complaints relating to their ability to undertake their roles and responsibilities as protectors and managers of their country and culture. Information, education and interpretation programs for the Guniyan Binba Conservation Park incorporates, in a prominent place, material about Yawuru people’s roles and responsibilities as protectors and managers of their country and culture. Visitors to the Guniyan Binba Conservation Park behave appropriately and safely around significant Yawuru areas. 	
Targets	<ol style="list-style-type: none"> The Yawuru community’s level of satisfaction that they that they have been able to undertake their role as protectors and managers of their country and culture is high. The number of unresolved complaints from Yawuru people relating to their ability to undertake their roles and responsibilities as protectors and managers of their country and culture per reporting period declines over the life of the plan. Level of awareness of Yawuru peoples’ roles and responsibilities as protectors and managers of their country and culture, among visitors to the Guniyan Binba Conservation Park, is high. No reports of inappropriate or unsafe visitor behaviour. 	
Reporting requirements	Annually.	



6.0 Guniyan Binba Conservation Park ecological values

6.1 Geology, geomorphology and hydrology

The oldest outcropping rock in the area is the Broome Sandstone, a formation deposited in a shallow sea environment about 145 million years ago during the late Mesozoic.

The Broome Sandstone contains numerous fossils, including those of extinct plants and the greatest variety of dinosaur footprints of any area in the world (DSEWPC 2011a; Kenneally *et al.* 1996). These provide valuable insights into the ecology of the Mesozoic and are features contributing to formal recognition of national significance of the West Kimberley National Heritage Area (which includes the Guniyan Binba Conservation Park) (DSEWPC 2011a).

Other exposed rocks in the area are younger Quaternary deposits. An extensive platform of Quaternary limestone with low cliffs is found from Coconut Wells through to Barred Creek beyond the northern boundary of the Yawuru conservation estate (Kenneally *et al.* 1996). The limestone is covered by sand dunes in places.

The shelly white sand beaches and high dunes along Cable Beach have formed under a contemporary high energy depositional regime. Significant seasonal reworking of sediment and landform change is a natural occurrence in this highly dynamic coastal environment.

The embayment of Willie Creek is a dominant feature of the local geomorphology. Both Willie Creek and Coconut Wells are barred embayments. Deposits (initially of sand and then later changing to limestone) created a barrier near the mouth of Willie Creek earlier in the Holocene, establishing low energy conditions under which *galji* (fine carbonate mud) accumulated behind the barrier (Semenuik 2008). At Coconut Wells the barriers of sand and limestone have formed a linear lagoon parallel to the shore (Semenuik 2008). Detailed descriptions of the evolution and features of these wetland complexes (i.e. natural units or aggregates of wetland units) are available in reports by the Semenuik Research Group (2011) and Semenuik (2008)

Both marine water (e.g. tides, waves, currents) and freshwater (i.e. rainfall, creeks, groundwater seepages) features and dynamics are critical to the maintenance of habitat in the Guniyan Binba Conservation Park. Tidal ranges, which are very large and can reach up to 9 metres, are a major factor affecting the coastal environment. Surface fresh water flow to the coast is highly seasonal and associated with the heavy rainfall over *man-gala* (the wet summer). Because the landscape around Broome is mainly flat, surface water generally flows to the coast in sheets rather than in well-defined channels. Some small temporary streams do flow over *man-gala*, for example, into Willie Creek.

For the purposes of this management plan, ecological values of the Guniyan Binba Conservation Park are further discussed under two broad habitat groupings, that is, the *jani* (beach) habitats along the coast, and the habitats associated with the *Wirrjinmirr*/Willie Creek wetland complex.



6.2 *Jani* (beach)

Shelly white sand beaches (*jani*) are a significant component of the Guniyan Binba Conservation Park. North of Coconut Wells the *jani* are adjacent to and sometimes overlie an extensive limestone platform (Kenneally *et al.* 1996).

Fauna associated with the *jani* of the Guniyan Binba Conservation Park include various crabs (e.g. ghost crabs, sand bubbler crabs), bivalves and other invertebrates that live in the seabed sediments, and marine turtles. Migratory bird species which are the subject of various international agreements (e.g. the Japan—Australia Migratory Birds Agreement, the China—Australia Migratory Birds Agreement and the Republic of Korea—Australia Migratory Birds Agreement) may also visit the area.

6.2.1 Marine turtle nesting habitat

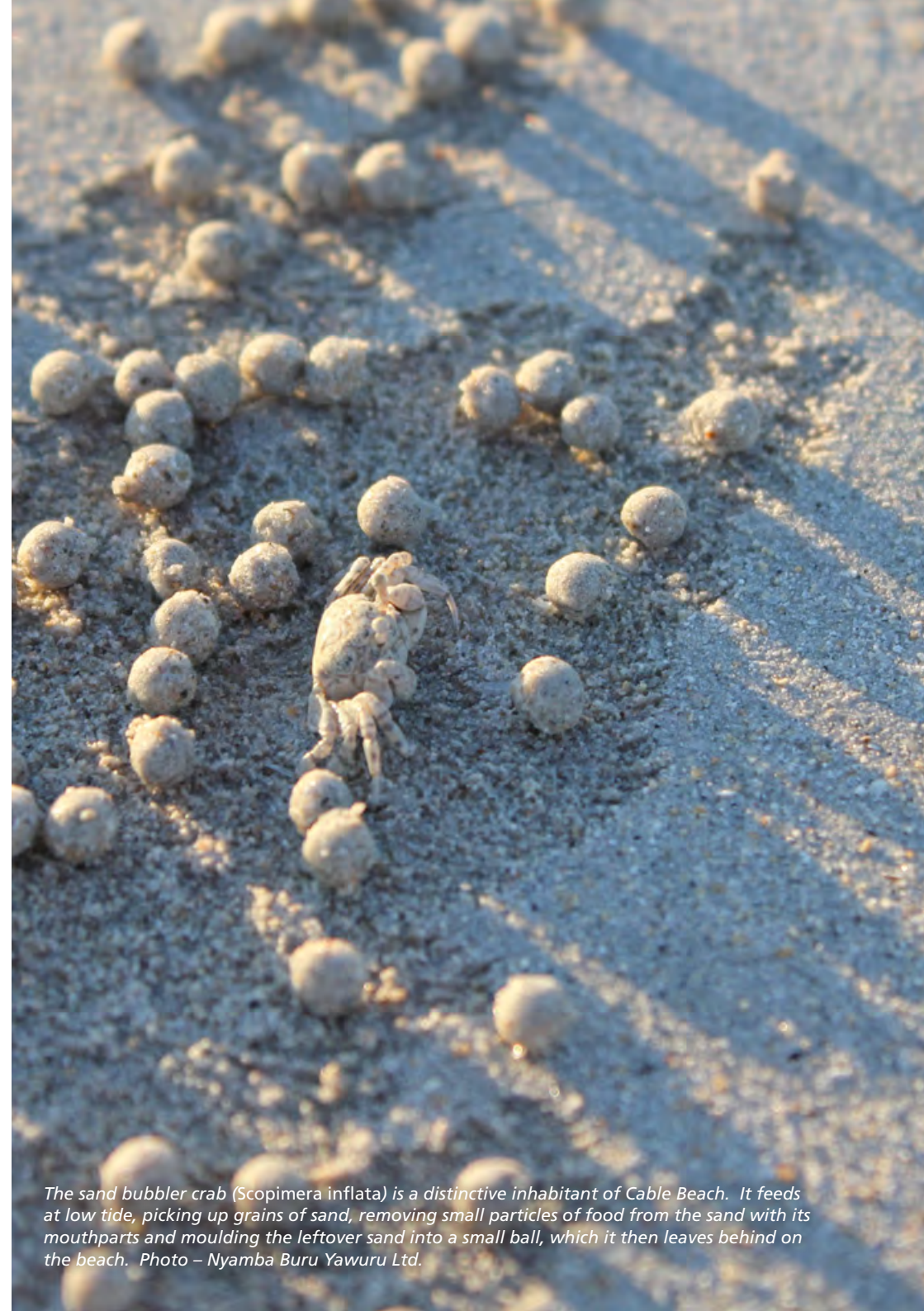
The flatback turtle (*Natator depressus*) is known to nest on Cable Beach with some regularity. The flatback turtle is a threatened species listed as ‘rare or likely to become extinct’ and ‘vulnerable’ under the Biodiversity Conservation Act and the EPBC Act respectively.

The peak nesting period is from November to December and the peak hatching period is from February to March.

A program to monitor turtle nesting activity on Cable Beach has been conducted since 2006, although this has been largely focused on the more heavily used beach within the Broome town site and there has been little monitoring done in the Guniyan Binba Conservation Park⁴. Monitoring of turtles in the Guniyan Binba Conservation Park is also needed to obtain a useful record of turtle nesting activity, trends and success, and to better inform management decisions about the area. Because flatback turtles nest every one to five years, monitoring needs to be continued for several years to determine population trends.

Green turtles (*gurlibil*) (*Chelonia mydas*), also a threatened species, may very occasionally nest on the beaches in the area, but monitoring to date indicates this is rare (Conservation Volunteers Australia recorded one green turtle nest on Cable Beach during the 2006-07 monitoring period).

⁴ Monitoring of nesting turtles also occurs in other parts of the Yawuru conservation estate; on beaches at the southern part of Roebuck Bay.



The sand bubbler crab (*Scopimera inflata*) is a distinctive inhabitant of Cable Beach. It feeds at low tide, picking up grains of sand, removing small particles of food from the sand with its mouthparts and moulding the leftover sand into a small ball, which it then leaves behind on the beach. Photo – Nyamba Buru Yawuru Ltd.



Flatback turtles regularly nest on Cable Beach in November and December. Photo – Heather Beswick



Flatback turtle hatchlings emerge from eggs in February and March and make their way across the beach and into the water. Photo - Nyamba Buru Yawuru Ltd



Yawuru Ranger Jason Richardson installs signage advising visitors not to drive on or disturb sand dunes near turtle nesting sites. Photo – DBCA.

6.2.2 Existing and potential pressures on ecological values associated with the *jani* of the Guniyan Binba Conservation Park

***Jani* occur in naturally dynamic environments and are landforms that are subject to regular seasonal changes. Tropical cyclones or other severe weather events can result in dramatic, longer lasting changes.**

The key management issues associated with ecological values of *jani* are:

- inappropriate vehicle and pedestrian access affecting ecological values of the area and the adjacent Yawuru Birragun Conservation Park and
- potential for disturbance of turtles, shorebirds and other fauna for which *jani* provide important habitat.

Driving vehicles on Cable Beach, including parts of the beach within the Guniyan Binba Conservation Park is a long-established part of recreational use in the area, and a recreational opportunity that is provided for under this management plan (see *Guniyan Binba Conservation Park recreation and tourism values*). Most vehicles access the beaches of the Guniyan Binba Conservation Park via the beach at the southern boundary of the reserve. However, in order to get their vehicles onto the beach, people have also illegally created tracks through sensitive dune, limestone and saltmarsh landforms of the adjacent areas, now part of the Yawuru Birragun Conservation Park. This proliferation of informal four-wheel-drive vehicle and pedestrian tracks through environmentally and culturally sensitive areas is a significant management issue within the adjacent Yawuru Birragun Conservation

Park. In addition, a small proportion of vehicles drive and park too high up the beach, causing damage to adjacent foredunes and vegetation.

Vehicles being driven on the beaches of the Guniyan Binba Conservation Park can also impact on fauna that this area provides habitat for, including marine turtles that nest on the beach, invertebrates that inhabit intertidal sediments and migratory shorebirds (Commonwealth of Australia, 2012, 2017); (Foster-Smith *et al.* 2007); (McFarlane 2008, 2009 & 2010); (Randall *et al.* 2006). Vehicle access on beaches during turtle nesting and hatching periods can directly result in death or injury of turtles, interfere with nesting or hatchling emergence success (e.g. through sand compaction) and impede movement of hatchlings to the sea (e.g. by creating deep ruts in which hatchlings can become entrapped). Turtle nesting success can potentially also be affected by other human activities and it is important that beach users have access to information about how they can avoid disturbing turtles (e.g. turtle watching code of conduct, information about the impacts of artificial lights). Vehicle access to the beach is currently restricted from 1 October until 28 February, between 8pm and 6am in order to protect nesting turtles. These restrictions will be maintained over the life of the plan.

Turtle nests may also be subject to predation (e.g. by sand goannas, dogs and cats), although more study is needed to explore the local prevalence and conservation implications of this issue.

6.3 The Wirrjinmirr/Willie Creek wetland system

The Guniyan Binba Conservation Park includes part of the *Wirrjinmirr/Willie Creek* wetland complex, a wetland system that is included in the Directory of important wetlands in Australia (DSEWPC 2011b).

Parts of this wetland complex, including some associated freshwater lakes and soaks, fall within the adjacent Yawuru Birragun Conservation Park, but the northern part of this wetland system lies outside the boundary of the Yawuru conservation estate. A detailed description of the evolution and features of Willie Creek is available in reports by the Semeniuk Research Group (2011) and Semeniuk (2008). Elements of the *Wirrjinmirr/Willie Creek* wetland complex within the Guniyan Binba Conservation Park include intertidal sand and mudflats, mangroves and salt flats.

Estuarine crocodiles (*inygurra*) (*Crocodylus porosus*) are occasionally seen at Willie Creek, and in tidal creeks and mangroves elsewhere in the Yawuru conservation estate. Broome is at the historical southern extent of the distribution of estuarine crocodiles in Western Australia (Australian Museum 2010), although confirmed sightings are now regularly recorded from the Pilbara further south. The estuarine crocodile is specially protected under the Biodiversity Conservation Act.



The *Wirrjinmirr/Willie Creek* wetland system, part of which lies in the Guniyan Binba Conservation Park. Photo - DBCA.



Soils where mangroves grow often have low oxygen levels. Therefore, instead of absorbing oxygen through roots, Gundurung (mangroves) use pneumatophores to absorb oxygen from the air. Photo – Kandy Curran.

6.3.1 Gundurung (mangroves)

Mangroves comprise trees and shrubs from a variety of plant families that have a range of adaptations for survival in the highly dynamic intertidal zone.

A pattern or zonation can be seen in the way that species are distributed throughout larger stands of mangroves. This is reflective of small differences in environmental conditions such as salinity, frequency of inundation, substrate characteristics, and also differences in the adaptations and environmental tolerances of various species. Zonation is evident in the mangrove at *Wirrjinmirr/Willie Creek* as described by Semeniuk (1983). Mangroves provide a range of ecosystem services and important habitat for diverse marine and terrestrial fauna. They provide a source of nutrients and organic matter to surrounding waters and help to buffer wave action, decreasing susceptibility to erosion and increasing shore stability (McKenzie *et al.* 2009; Pedretti & Paling 2000). They are a nursery and breeding area for some fish and crustaceans (Pedretti & Paling 2000).

6.0 Guniyan Binba Conservation Park ecological values

The mangroves provide important habitat for bats and birds. Threatened bird species, for example the curlew sandpiper (*Calidris ferruginea*), great knot (*Calidris tenuirostris*) and Eastern curlew (*Numenius madagarscariensis*) have been recorded in the area, as have several other bird species that are the subject of international agreements. Several bird species recorded as occurring in the area are virtually confined to mangroves (Johnstone 1990). Within and around the Yawuru conservation estate these are likely to include the mangrove kingfisher (*Halcyon chloris*), mangrove golden whistler (*Pachycephala melanura*), white-breasted woodswallow (*Artamus leucorhynchus*), white-breasted whistler (*Pachycephala lanioides*) and the dusky flyeater (*Gerygone tenebrosa*) (Johnstone 1990). Other bird species found on the Dampier Peninsula regularly use mangroves to feed, nest or shelter; these include the mangrove heron (*Butorides striata*), little bronze cuckoo (*Chrysococcyx minutillus*), brown tailed flycatcher (*Microeca tormenti*), mangrove robin (*Eopsaltria pulverulenta*), grey fantail (*Rhipidura phasiana*), yellow white-eye (*Zosterops lute*), and red headed honeyeater (*Myzomela erythrocephala*) (Johnstone 1990). Many mangrove birds have disjunct distributions because of large breaks in the mangrove vegetation (Johnstone 1990). Mangroves are also important for shorebirds that use this habitat for roosting during high spring tides (Bennelongia 2009), and species such as brahmny kites (*Haliastur indus*) and black-necked storks (*Ephippiorhynchus asiaticus*) which nest in dense mangroves (Johnstone 1990). Some bat species recorded from the area include Gould's wattled bat (*Chalinolobus goudii*), the yellow-bellied sheath-tail bat (*Saccolaimus flaviventris*), the hoary wattled bat (*Chalinolobus nigrogriseus*) and the little broad-nosed bat (*Scotorepens greyii*).



Flame-backed fiddler crabs (*Uca flammula*) are commonly found in sandy and muddy mangroves of the Guniyan Binba Conservation Park. Both males and females are bright red, but the males have one large claw which they wave in the air to attract females and to warn off other males. Photo – Kandy Curran.

6.3.2 Salt flats

Bare salt pans occur behind the stands of *gundurung* (mangroves). The salt pans are formed through high evaporation rates during the dry season leaving the sediment extremely saline and essentially uninhabitable by vegetation, although some highly salt-tolerant algae may be present (Adam 2009; Connolly & Lee 2007; Oldmeadow 2007). *Bundu* (saltmarsh of samphire flats and saline grasslands) which border the salt flats, occur in areas straddling or above the high tide mark and are therefore very infrequently inundated by tides.

6.3.3 Existing and potential pressures to ecological values associated with the Wirrinmirr/Willie Creek wetland complex

Pressures can arise from activities or developments that would result in direct physical disturbance of the tidal wetland system or in disturbance to the ecological processes that maintain it. Natural events such as cyclones and storms can cause dramatic short-term changes to mangroves. Of disturbances arising from human activity, the most significant pressures stem from any activities or developments that would substantially change the normal hydrological and sedimentary regimes operating within the wetland system.

Both marine water and freshwater dynamics are important in sustaining mangrove communities. Freshwater inflows into the high intertidal zone have a strong influence on the distribution and diversity of mangroves, so species occurring in these areas can be especially sensitive to changes in the normal freshwater regimes (Gillanders 2007; Semeniuk 1983). Surface and subsurface freshwater inputs are important, serving to dilute the hypersaline salt flats and establish conditions that are more suitable to the growth of certain mangroves (Semeniuk 1983). Where subsurface seepages continue throughout wet and dry seasons, as is often the case around Broome, this can be a particularly influential factor in the distribution of mangroves (Semeniuk 1983).

Anoxic, sulfide rich, low pH sediments found in wetland areas are associated with potential acid sulfate soils. These are soils which, when disturbed or subjected to prolonged drying and aeration, have the potential to generate increased acidity and mobilise heavy metals which may be harmful to flora, fauna and human health. The Willie Creek wetland system is not known to be notably affected by pollutants.

Summary of management arrangements for ecological values

Management objectives	<ol style="list-style-type: none"> 1. To ensure the ecological processes (e.g. geomorphic and hydrological) that sustain habitats in the Guniyan Binba Conservation Park are not significantly adversely affected by human activity in the Guniyan Binba Conservation Park. 2. To ensure turtles and other fauna are not significantly adversely affected by human activity in the Guniyan Binba Conservation Park. 3. To maintain the condition of mangroves within the Guniyan Binba Conservation Park.
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Management strategies	<ol style="list-style-type: none"> 1. Carry out research and monitoring to improve understanding of the ecological values of the area, and to collect baseline data to facilitate future assessments of management effectiveness (e.g. a turtle monitoring program, monitoring of mangrove diversity and extent, and any monitoring required in accordance with approved recovery plans). H 2. Provide information for visitors, to help raise awareness about fauna sensitive to disturbance and promote a code of conduct that minimises this (e.g. turtle watching code of conduct). H 3. If required, implement strategies to minimise the effects of threatening processes on habitats in the Guniyan Binba Conservation Park. M 4. Maintain access restrictions to provide seasonal protection to turtles and their nests. M 5. Based on monitoring outcomes, determine the need for further access restrictions if necessary, to protect flora and fauna and implement as required (e.g. establish temporary control areas under section 62 of the CALM Act where necessary to provide seasonal protection to turtles or nesting shorebirds). M 6. Avoid significant disturbances of potential acid sulfate soils. M
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Key performance indicators

Performance measures	<ol style="list-style-type: none"> 1. Availability of data on marine turtle nesting within the Guniyan Binba Conservation Park (e.g. numbers and locations of nests, false crawls, disturbances). 2. Level of disturbance of marine turtles within the Guniyan Binba Conservation Park (e.g. by vehicles, feral predators). 3. Mangrove species diversity, spatial extent and canopy cover (%).
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Targets	<ol style="list-style-type: none"> 1. A series of annual turtle monitoring reports (including records of disturbance) are available for the Guniyan Binba Conservation Park over the life of this management plan. 2. No significant disturbance of marine turtles within the Guniyan Binba Conservation Park. 3. No loss of mangrove species diversity, spatial extent or canopy cover (%) as a result of human activity in the Guniyan Binba Conservation Park.
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Reporting requirements	<ol style="list-style-type: none"> 4. Review progress every two years.
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Cooking on fires on the beach is an Aboriginal customary tradition that continues: 'People always cook their fish or crab on the beach, day or night. We cook the whole fish on the coals. We don't waste anything. We still want to be able to take our families fishing and cook our fish and shellfish on the beach.'

Neilo McKenzie (Yawuru RNTBC 2011)

7.0 Guniyan Binba Conservation Park history and heritage values

7.1 History

7.1.1 Aboriginal occupation and custodianship

The Yawuru conservation estate is part of country that Yawuru people have been a part of for thousands of years before the arrival of the early European explorers.

Archaeological records from the area include numerous middens and artefacts that provide evidence of Aboriginal peoples' long occupation. A range of other types of Aboriginal heritage sites also occur in the area.

Historically, Aboriginal people would regularly camp throughout the dunes which provide an array of important bush tucker and other resources. The explorer Phillip King charting the west coast of the Dampier Peninsula in 1821 noted:

"...the smoke of the fires have been noticed at intervals of every four to five miles along the shore, from which it may be inferred that this part of the coast is very populous" (quoted in Kenneally *et al.* 1996).

The *Wirrjinmirr*/Willie Creek area is at the northern boundary of Yawuru country and much of the coastline surrounding this area marks the travels of the creative beings of the tradition of law allied with people who live in these northern areas (i.e. the Northern Tradition). The *Wirrjinmirr* area is associated with law grounds, *Bugarrigarra* sites, ceremonial sites, historic living areas and *jila*.

Some Yawuru people and their families worked and lived on the various pastoral leases the area was previously managed under (e.g. Hill Station and later Waterbank Station).

The *Yawuru cultural management plan* identifies various cultural values associated with *gundurung* (mangroves). They are an important source of *mayi* (food) including fish, *gundurung* fruit which is collected at the end of *marrul* (April—May), crabs, oysters, mangrove shellfish and fruit bats (YRNTBC 2011).

More discussion of Yawuru cultural values including heritage values is provided in *Guniyan Binba Conservation Park Yawuru cultural values*.



Shrubby samphire (Tectocornia spp.) is found growing on samphire flats and saline grasslands behind stands of gundurung (mangroves) and is a good bush food. Photo – Kandy Curran.

7.1.2 European explorers

Europeans began exploring the coastline in the 1600s. Some of the first explorers to the region included the Dutch mariner Abel Tasman in 1644, and Englishman William Dampier, initially as a buccaneer aboard the *Cygnets* in 1688 and later aboard the *Roebuck* (after which Roebuck Bay was named) (Green 1981; Kenneally *et al.* 1996).

Later European visitors included the Frenchmen Nicholas Baudin and Louis de Freycinet in 1801—02, who gave French names to several places along the Kimberley coast (DSEWPC 2011c).

7.1.3 Pearling

The Broome area is synonymous with pearling and this has been a major foundation of the area's heritage values.

Well before the arrival of European pearlers Yawuru people had a long tradition of harvesting pearl shell. This was carved with decorative designs and worn on ceremonial occasions or used for trading with other Aboriginal groups (Yawuru RNTBC 2011). During the 1870s, European pearlers who had been operating out of Cossack and Roebourne travelled north to Broome in search of new pearling beds to exploit for mother-of-pearl. By the first decade of the 20th century Broome was producing most of the world's supply of mother-of-pearl and was recognised as the pearling capital of the world (DSEWPC 2011c). In the 1960s the industry developed into the cultured pearl farming industry which was and continues to be a major contributor of pearls to the world market (DSEWPC 2011c).

Aboriginal people have been an integral part of Broome's pearling story, with many having been kidnapped for forced labour on the luggers and on shore when the industry was first established (Green 1981; Yawuru RNTBC 2011). As the pearling industry developed, Asian men (from Japan, China, Philippines, Malaysia and Indonesia) were brought to Broome to work in the industry as indentured labour, and Broome became unique in Australia for being a predominantly Asian town during the late 19th to mid-20th century (DSEWPC 2011c). In the semi-permanent pearling lugger 'lay-up' camps, including at Willie Creek, Asian workers interacted and developed relationships with Aboriginal people who supplied water and wood for the pearling vessels, and a fascinating cultural and racial fusion emerged (Yawuru RNTBC 2011).

7.1.4 Pastoral history

During the 1860s settlers from the south began to explore the region for locations to raise sheep and cattle.

These early pastoral endeavours failed in the face of sustained Aboriginal resistance and harsh environmental conditions. The area was not colonised by pastoralists until the late 1890s (DSEWPC 2011c). Conflict between Aboriginal people and the European pastoralists was common throughout the early days of the pastoral industry. Hostilities gradually declined as pastoralists began to take advantage of an Aboriginal workforce to help run their stations, and as Aboriginal people adapted to the new circumstances so that they could live on or near their traditional country, fulfil their custodial duties and maintain their traditional way of life as much as was possible (DSEWPC 2011c).

The areas adjacent to the Guniyan Binba Conservation Park (and now part of the Yawuru Birragun Conservation Park) were previously part of Hill Pastoral Station, which later became Waterbank Pastoral Station. Government purchased the station in 1996 for alternative land uses. Some Yawuru people were born, grew up and worked on the local pastoral stations, but as occurred elsewhere throughout the State, they were forced to leave or walked off the stations in the late 1960s and early 1970s when station owners were required to pay Aboriginal workers equal wages (Yawuru RNTBC 2011). Station work and life features strongly in the memories of many Yawuru people and is a major and important part of Yawuru heritage and contemporary identity.

7.1.5 Communications history

A telegraph cable, laid between Java and Broome in 1889, came ashore at what was to become known as Cable Beach.

The cable linked Broome with England (via Singapore, India, Aden, Egypt, Malta and Gibraltar) and was also connected to the Australian Overland Telegraph Line from the south. The telegraph cable functioned until 1914 when the operations were transferred to Cottesloe in Perth.



7.2 Heritage legislation

The heritage significance of some sites within the Guniyan Binba Conservation Park has been formally recognised through registration under heritage protection legislation.

Many Yawuru cultural heritage sites, including a number within or adjacent to the Guniyan Binba Conservation Park, are now formally recognised on the register of sites maintained under the *Aboriginal Heritage Act 1972*. However, registered sites do not represent a comprehensive record of the actual sites in the area. Under the *Aboriginal Heritage Act 1972*, Aboriginal heritage sites and objects are protected whether they have been entered on the register or not, and it is an offence to alter a site or object without prior approval under the Act.

Changes to the CALM Act in 2012 included that CALM Act management plans must have the objective of 'protecting and conserving the value of the land to the culture and heritage of Aboriginal persons' (as described in section 56(2) of the CALM Act).

The Guniyan Binba Conservation Park is included within the boundary of the West Kimberley National Heritage Area – see 1.7 *Legislative* context for further information.

There are currently no sites within the Guniyan Binba Conservation Park listed on the *State Register of Heritage Places* established under the *Heritage of Western Australia Act 1990*.

7.3 Existing and potential pressures on history and heritage values

Potential cultural heritage management issues for the Guniyan Binba Conservation Park largely arise from poor understanding and appreciation of the area's history and heritage values.

Information, interpretation and education initiatives are an important part of cultural heritage conservation, and such initiatives are critical to managing cultural heritage values of the Guniyan Binba Conservation Park.

Summary of management arrangements for history and heritage values

Management objectives	1. To conserve non-Aboriginal heritage values.	
Management strategies	1. Identify important non-Aboriginal heritage sites.	H
	2. Provide materials and opportunities (e.g. interpretive signage, brochures and other media, tour products) for visitors to enhance their understanding and appreciation of the cultural heritage and historical context of the area.	H
	3. Ensure that Yawuru people have a primary and active role in the conservation and communication of their cultural heritage, and that Yawuru intellectual property is recognised.	H
	4. Assess factors that may diminish or have adverse effects on cultural heritage sites or the value of the Guniyan Binba Conservation Park to the culture and heritage of Aboriginal people and implement management actions to address these as necessary.	H
	5. Ensure management activities are consistent with Yawuru cultural protocols.	H

8.0 Guniyan Binba Conservation Park recreation and tourism values

Broome and surrounds, including the Guniyan Binba Conservation Park, offer visitors to Broome and those who have chosen to live there, a range of highly valued opportunities for nature-based recreation and cultural tourism.

Broome is the largest town in the Kimberley Region and is expected to accommodate the most significant amount of the region’s anticipated population growth over the next 25 years (Western Australian Planning Commission 2015). Consequently, the number of residents engaging in recreational activities in the Yawuru conservation estate is likely to increase over the life of this plan. Broome is a popular tourist destination and commonly used as a gateway for visitors wanting to explore the wider Kimberley area, and a sustained or increased level of visitation to the Guniyan Binba Conservation Park by tourists is also likely. Visitation data for the Yawuru conservation estate is currently insufficient to provide a good picture of visitor use numbers and patterns, however it is likely that visitation to the Guniyan Binba Conservation Park would mirror fluctuations in the local population cycle, with a significant increase in visitation through the dry season. The Willie Creek Pearl Farm tourist operation, a popular attraction for visitors to Broome is located at Willie Creek but is outside of the boundaries of the Yawuru conservation estate.

People visiting the Guniyan Binba Conservation Park engage in a variety of activities including fishing, swimming, walking, nature appreciation, picnicking and spending time with family and friends. Many tourists and local residents in particular take their dogs into the area. The beaches of the Guniyan Binba Conservation Park are also occasionally used by people on horses. *Wirrjinmirr*/Willie Creek, which has numerous cultural values associated with it and is an area used for customary fishing, is also used by the broader community mainly for recreational fishing and sightseeing.

Driving on the beaches around Broome, both in town and in the Guniyan Binba Conservation Park, is a popular recreation activity for many visitors. Many local residents and tourists value the opportunity to drive their vehicles on the beach, for the recreational four-wheel-driving experience and because it provides convenient access for popular activities such as sunset picnics or fishing off the beach. The ability to drive on the beach also allows access to more isolated areas that people would be less likely to use if they were unable to take their cars. People also sometimes drive onto the Guniyan Binba Conservation Park beach to launch and retrieve small recreational boats.⁵

There is currently very little use of the Guniyan Binba Conservation Park for commercial tours. Tour operators proposing to undertake commercial tourism activities within the Guniyan Binba Conservation Park will require a licence issued under the CALM Act and must abide by specified conditions. Commercial operators may also require additional licences and approvals in accordance with other State legislation and local government laws, depending on the activities undertaken and the areas used. Allowing commercial tourism enterprises within conservation reserves can help to extend the range of services, facilities and experiences available for visitors. Commercial tourism activities must be compatible with the purpose of the reserve.

While reserve and management arrangements differ across the Yawuru conservation estate, the areas are implicitly linked and it is essential that management is well-integrated across the whole of Yawuru conservation estate. To this end, a whole of Yawuru conservation estate approach is also used for recreation planning purposes. Recreation and tourism management provisions in this plan have been developed to consider and complement those in other Yawuru conservation estate management plans, and *vice versa*. This is particularly important for adjoining parts of Yawuru Birragun Conservation Park and Yawuru Minyirr Buru (in town) reserve.

⁵ There is also a boat ramp on the Northern side of Willie Creek (outside of the conservation estate).



8.1 Recreation and tourism management issues

The main recreation and tourism management issues for the Guniyan Binba Conservation Park arise from:

- potential impacts of vehicle access on ecological, cultural and social values of the area
- littering and
- potentially conflicting activities/user groups, particularly on the beach areas closer to town (e.g. this area is shared by people in vehicles, launching boats, riding horses, walking and exercising dogs).



Shire of Broome rangers, Jane Gillmore and Ben Coles check that beach users are driving safely. Photo – Shire of Broome.

8.1.2 Vehicles

Most vehicles access the Guniyan Binba Conservation Park via the beach at the southern boundary of the reserve through Shire of Broome managed lands and then along the beach within Yawuru Minyirr Buru Conservation Park.

A few people do drive onto the beach via the Yawuru Birragun Conservation Park, often by informal inappropriately located tracks and trails. Within the Guniyan

Binba Conservation Park vehicles are most commonly seen in parts of the beach closer to town and near Coconut Wells. The numbers of vehicles on the beach within the Guniyan Binba Conservation Park increases considerably during the dry season, but numbers are nevertheless low compared to the numbers of cars regularly seen on the beach within closer proximity to town⁶. In recognition of historical recreational uses, the low numbers of vehicles on the Guniyan Binba Conservation Park beaches, and that vehicles continue to be permitted on the beach at the southern boundary of the reserve, licenced vehicles (i.e. licenced under the *Road Traffic Act 1974*) will be permitted within areas of the beach designated under the *Conservation and Land Management Regulations 2002* (CALM Regulations) within the Guniyan Binba Conservation Park. Recreation planning and development within the adjacent Yawuru Birragun Conservation Park will also consider sustainable, appropriate vehicle and pedestrian access into the Guniyan Binba Conservation Park (in conjunction with complementary recreation site developments e.g. near Willie Creek and Coconut Wells).

There are a range of issues associated with vehicle access on the beach that will require active monitoring and management. The driving of vehicles on the beach has the potential to adversely affect ecological and cultural values (as discussed in previous sections), cause a range of safety management issues, and diminish the recreational amenity of the area for non-vehicle-based users. The impacts of vehicle access on the ecological and cultural values will be monitored over the life of the plan. It will be important that the extent to which these issues are being effectively managed is assessed periodically, as needed over the life of this plan, based on this monitoring data.

Current access restrictions that apply to the Guniyan Binba Conservation Park to provide seasonal protection to turtles and their nests will be maintained. Based on the monitoring of vehicle impacts, the need for further vehicle access restrictions will be determined, and implemented if necessary, to protect flora and fauna (e.g. establishing temporary control areas under section 62 of the CALM Act to provide seasonal protection to nesting shorebirds and turtles). Access restrictions may also be required to protect visitor safety, for example due to the presence of crocodiles or Irukandji jellyfish or following cyclones.

The primary access and egress point for vehicles into the Guniyan Binba Conservation Park will continue to be via the beach at the southern boundary of the reserve unless a suitable alternative access point can be found and agreed upon by all the relevant parties. In addition, pedestrian and vehicle access between

⁶ A motor vehicle survey which was conducted during the peak tourist period in 2006 recorded about 900 vehicles across the day for the beaches close to town. On average, about a third of vehicles accessed the beach in the afternoon to view the sunset and set up for picnics and barbecues (Cable Beach Motor Vehicle Management Advisory Committee 2007).

the Yawuru Birragun Conservation Park and the Guniyan Binba Conservation Park will be defined at select locations. These access routes will generally be associated with recreation sites within (or yet to be developed within) the Yawuru Birragun Conservation Park, in the vicinity of Coconut Wells and Willie Creek. However, the vehicle access routes between the Yawuru Birragun Conservation Park and the Guniyan Binba Conservation Park are intended to support low-level use rather than to replace the current primary vehicle access (i.e. via the beach within Yawuru Minyirr Buru Conservation Park).

8.1.3 Horses and dogs

People have been permitted to take dogs and horses onto specified parts of Cable Beach near the town site of Broome for many years.

Local residents and tourists also take their dogs onto the beach within the Guniyan Binba Conservation Park. However, the overall level of use is significantly lower and fewer dogs are seen in the Guniyan Binba Conservation Park compared with the beach 'in-town'. Similarly, the beaches of the Guniyan Binba Conservation Park are only occasionally accessed by people on horses as this also mostly occurs on the town site beaches under permits issued and managed by the Shire of Broome. In recognition of the history of people taking dogs and sometimes horses into the Guniyan Binba Conservation Park, visitors will continue to be permitted to do so, in accordance with a designation made under the CALM Regulations.

People bringing dogs or horses into the Guniyan Binba Conservation Park will need to remain within the relevant designated area and observe any specified conditions (e.g. ensure the animal is controlled and faecal excrement removed). This will help with managing potential conflicts between differing user groups and activities, and minimise potential impacts on ecological values.

8.1.4 Litter

Litter left behind by visitors or washed up on the beach is a management problem within the Guniyan Binba Conservation Park.

Littering affects the visual amenity, can cause injury to fauna and be a source of environmental pollution. Information which raises visitor awareness of these effects may help with managing this problem and is an important component of a multi-faceted approach to litter management in the conservation estate.

8.1.5 Information, education and interpretation

Until relatively recently, much of the Yawuru conservation estate has been unallocated Crown land, and limited interpretation, information and education services have been made available for visitors.

Provision of information and interpretation material is important to improve the experience of visitors, promote awareness and understanding of natural and cultural values, and to gain support for the protection and management of these. Some communication topics and themes relevant to the Guniyan Binba Conservation Park are:

- the specific cultural and natural values of the area including:
 - Yawuru cultural and heritage values and the tripartite joint management arrangements
 - The relevant national heritage values
- behaviours and measures to avoid disturbance of flatback turtles during nesting season⁷, or other fauna sensitive to disturbance
- relevant safety matters, such as appropriate conduct for driving vehicles on the beach, crocodile and Irukandji jellyfish risk awareness.



Beach closures are occasionally required due to the presence of crocodiles on Cable Beach. Shire ranger Narelle Graue installs temporary signage advising of a crocodile sighting. Photo – Shire of Broome.

⁷ Including, for example, turtle watching code of conduct and information about the impacts of artificial lights.

Summary of management arrangements for recreation and tourism

Management objective

1. To provide visitors with a range of opportunities for recreation and tourism in the Guniyan Binba Conservation Park while ensuring these are consistent with and complementary to conservation of the cultural and ecological values.

Management strategies

- | | |
|--|---|
| 1. Provide information, interpretation and education to help improve visitors' experience and appreciation of the cultural, natural and historical values, and promote behaviour sensitive to the conservation of these values. | M |
| 2. Designate areas under the CALM Regulations within the Guniyan Binba Conservation Park where visitors can drive licensed vehicles onto the beach for recreational purposes (and to launch and retrieve vessels from the beach). | H |
| 3. Prepare and distribute information to visitors about acceptable conduct within the Conservation Park including the responsible driving of vehicles within the Conservation Park. | H |
| 4. Consolidate and formalise vehicle and pedestrian access locations, closing surplus access ways, with agreement from the Park Council. | H |
| 5. Carry out research and monitoring to evaluate visitation levels and patterns, and what, if any, effects recreation and tourism activities is having on key values and implement additional or alternative management measures if necessary. | H |
| 6. Designate the Guniyan Binba Conservation Park as an area where horses and dogs are permitted in accordance with the CALM Regulations and continue to support dog and horse access within the Guniyan Binba Conservation Park subject to appropriate ongoing management arrangements, and monitoring and review of these arrangements. | H |
| 7. Carry out regular visitor risk assessments and implement measures to mitigate safety issues as considered necessary. | H |
| 8. Implement litter management measures (including education, enforcement and clean-up components) to minimise littering and the effects of littering on the values of the Guniyan Binba Conservation Park | H |
| 9. Provide for commercial tourism activities that are compatible with the purpose and management of the Guniyan Binba Conservation Park and appropriately licensed (e.g. licence issued pursuant to the CALM Regulations, and other relevant legislation if necessary). | H |
| 10. Determine and develop appropriate management protocols for assessment, licencing and management of commercial activities and events. | H |





A female flatback turtle returns to the ocean after laying her eggs. Photo – Nyamba Buru Yawuru Ltd.

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Acronyms and abbreviations

- CALM Act.....*Conservation and Land Management Act 1984*
- The departmentDepartment of Biodiversity, Conservation and Attractions
- EPBC Act.....*Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)*
- ILUA.....Indigenous land use agreement
- KPIKey performance indicator
- Native Title Act.....*Commonwealth Native Title Act 1993*
- Biodiversity Conservation Act.....*Biodiversity Conservation Act 2016*
- Yawuru RNTBCYawuru Registered Native Title Body Corporate



Yawuru language glossary

Bugarri	<i>Dream; totem associated with a child</i>
Bugarrigarra	<i>The Dreaming; Dreamtime; history before time began; derived from bugarri=dream and garra=more than one</i>
bundu.....	<i>Saltmarsh (saline grasslands, samphire, mudflats)</i>
buru.....	<i>One's country; traditional country; land/earth/dirt/ground; can also mean time/place/season</i>
galji	<i>The fine grained soft carbonate mud that occurs around Broome</i>
gurlibil.....	<i>Turtle (green back)</i>
gundurung.....	<i>Mangrove; and also in particular the light green leaf mangrove Avicennia marina</i>
jani	<i>Beach</i>
jila.....	<i>'living water'; permanent fresh water sources</i>
jurru	<i>Mystical being; serpent like figure; snake</i>
linygurra	<i>Estuarine crocodile</i>
liyan.....	<i>Feelings that express emotional strength, dignity and pride</i>
Mabu.....	<i>Good; healthy; strong</i>
Man-gala.....	<i>Yawuru season: December to March; wet season</i>
Marrul	<i>Yawuru season: April to May</i>
mayi.....	<i>Bush foods; bush fruit</i>
nagula.....	<i>Ocean; sea country</i>
rayi	<i>Spiritual essence; spirit being; child-spirit</i>
Wilburu	<i>Yawuru season; warming up season: September to October</i>
Wirralburu	<i>Yawuru season: May</i>
Wirrjinmirr	<i>Willie Creek</i>

Source: Yawuru cultural management plan (Yawuru RNTBC 2011)



Copies of the Yawuru cultural management plan are available from:

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