

# CREATE RANGER PARKS

A proposal to change lives and protect nature for all Western Australians



Create Ranger Parks is an historic opportunity to create Indigenous ranger jobs with new national parks that all Western Australians can enjoy. Help protect nature and change lives.

Authors and acknowledgements

The Create Ranger Parks proposal was authored by Dr Carol Booth, Jane Seman, Emma Pringle, Suzannah Macbeth, David Mackenzie, Linda Goncalves and John H. Collins from the organisations behind this community-based initiative. The design was provided by Adam Cannell and Tom Wilson at Kiosk Creative Services. Maps and data were provided by Lucinda Douglass and Joel Turner of Centre for Conservation Geography. Photography provided by Glenn Campbell, Australia’s Golden Outback, David Blood, the Broad family, Simon Nevill, Jiri Lochman, Yamatji Marlpa Aboriginal Corporation and Track Care WA.

This proposal arises from almost three years of conversation and consultation with a diversity of stakeholders and experts, from Traditional Owners to pastoral lease holders, scientists, government and departmental representatives, and business operators. Among many people and organisations who have contributed their ideas and information to Create Ranger Parks, the authors would like to thank the staff and board members at Yamatji Marlpa Aboriginal Corporation including Jose Kalpers and Olivia Norris; Rob Thomas, Hamish Morgan and Ian Rawlings at Central Desert Native Title Services; Dave Whitelaw of Conservation Management; the staff at Social Ventures Australia including Stephanie Shorter, Brendon Ferguson and Ben Gollow; staff at The Pew Charitable Trusts including Paul Sheridan, Ed Giles, Dr Barry Traill, Patrick O’Leary, Sophia Walter, Michelle Grady and Tim Nicol; the members of the Malgana, Gnulli and Yamatji Wajarri Native Title Claim Working Groups; Brian Moyle from the Wildflower Society; Bruce Brinkley and Alistair Gordon at the WA 4WD Association; Greg Burrows and Richard McLellan from Northern Agriculture Catchment Council; John Oxenham and the Share Our Dream Aboriginal Corporation; Dr Eddie van Etten of Edith Cowan University; Reconciliation WA; Conservation Council of WA; Bush Heritage Australia; Australia’s Golden Outback; and Track Care WA; as well as Tony Brandis, Bianca McNeair, David Green, Noel Dodd, Gaven Poland, Darren Capewell, Mathew Cross, Richard Nelly, and Vaughan, Jai and Kaiden Lane.

CreateRangerParks@outbackwa.org.au

CreateRangerParks.org.au

February 2017  
(First published November 2016)

Cover photo: Exploring granite outcrops on the proposed Woolgorong Ranger Park, Glenn Campbell.



Printed on 100% recycled material



SUPPORTED BY:







Looking out from the top of Burringurrah (Mount Augustus) in a national park that will be dramatically expanded under the Create Ranger Parks proposal.

# Contents

<b>1. Overview</b>	
An historic opportunity to change lives, create jobs and protect nature	1
Independent economic assessment of the Create Ranger Parks proposal	2
<b>2. From pastoral leases to parks for people</b>	
A rich history – a unique heritage	3
Diversifying for regional development	3
Parks for people: the location of the proposed Ranger Parks	4
<b>3. The Create Ranger Parks proposal</b>	
So how does it work?	7
Foundational principles	8
<b>4. Parks for people</b>	
More parks for people	10
Preserving our cultural heritage	10
Safeguarding remarkable natural places	11
<b>5. Indigenous rangers</b>	
A great success story delivering multiple benefits	15
What do rangers do?	15
Case study – Nyangumarta Warrarn Rangers	16
An investment in human potential: the benefits of Indigenous ranger programs	17
What makes an Indigenous ranger program a success?	19
<b>6. Regional development</b>	
Contributing to regional prosperity	21
Developing regional tourism	21
Supplying goods and services	21
Fostering Aboriginal economic activity	21
<b>7. Working with the community</b>	
Working to protect our shared heritage	23
Local knowledge and involvement	23
Aboriginal cultural sites	23
Magnifying our impact through the community	23
Case study – Track Care	24
<b>8. Benefits and costs of creating Ranger Parks</b>	
A regional initiative with multiple benefits	27
Benefits for Western Australians	27
Supporting programs that build a stronger Western Australia	28
The costs and savings of creating Ranger Parks	29
<b>9. What you can do</b>	31
<b>References</b>	32
<b>Appendix 1. Cost Benefit Analysis of the ‘Create Ranger Parks’ Regional Development Program</b>	33





# 1. Overview

## An historic opportunity to change lives, create jobs and protect nature

Twenty years ago, the Western Australian Government purchased specially selected pastoral leases with a positive and visionary goal – to help diversify and strengthen regional economies, improve the lives of Outback families, and protect the state’s most remarkable Outback landscapes for future generations.

Since then, these 66 remarkable properties have been forgotten and neglected. Instead of contributing to local prosperity, these unique places have suffered from the impact of feral animals and wildfires, which in turn have caused hardship for neighbouring pastoral leaseholders. Employment opportunities have gone begging, and all Western Australians are missing out on new camping and tourism experiences in some of our most beautiful landscapes.

These former pastoral lease properties present a unique opportunity that will mean a win for everyone. Western Australia needs the government to finish what it started 20 years ago and create an extensive network of protected parks, managed by Indigenous rangers, to create real jobs and real change.

The Create Ranger Parks proposal will provide sustainable, local employment and proven health and social outcomes for Indigenous communities in remote locations where jobs are often hardest to find. It will strengthen regional economies with new business opportunities and diversified activities, and safeguard important natural assets. And it will resolve long-standing conflict between government and pastoral leaseholders over the lack of management of the former pastoral lease properties – all simply by creating new parks that will allow people to experience more of our incredible country.

### Rangers + Parks

**Create Ranger Parks** is a name that conveys the two great success stories central to this proposal – Indigenous **Rangers** and **Parks** for conservation. It is envisaged that these properties will ultimately become national parks or conservation parks. While the properties are referred to by their former pastoral lease names in this proposal, it is hoped that an appropriate Aboriginal name will be found for each of the proposed Ranger Parks.



Kaiden and Jai Lane enjoying the wildflowers on the proposed Lochada Ranger Park.

## Independent economic assessment of the Create Ranger Parks proposal

An economic analysis by Social Ventures Australia Consulting found that the economic benefits of the Create Ranger Parks proposal would far outweigh the costs. Their research has found that, for every \$1 invested, \$3.70 worth of value would be created for all Western Australians, of which \$2.30 would be a direct benefit for government. This conservative estimate does not include significant potential income derived from tourism ventures or carbon credits in association with the Ranger Parks.

The cost of the Create Ranger Parks proposal was estimated at a yearly average of \$11.5 million, which would result in an annual direct benefit

### Benefits for Western Australians

1. Creation of 212 Indigenous ranger jobs
2. Proven health and social benefits in remote communities
3. Savings in priority areas of government expenditure
4. Greater government efficiencies via a public-private partnership model
5. Increased accountability and standards in land management
6. Increased regional development opportunities
7. Five million hectares of new parks for people
8. Improved relationships with pastoral leaseholders
9. Protection of the ‘jewels’ of Western Australia’s Outback
10. Support for existing policies, plans and initiatives

## Join us to Create Ranger Parks

Create Ranger Parks is a visionary community proposal which needs your support to succeed. Lend your name, or the support of your organisation, at [CreateRangerParks.org.au](https://CreateRangerParks.org.au)

to Western Australia of \$42.7 million and an annual direct benefit to government of \$26.5 million.

Importantly, it is estimated that the proposal would create 212 remote and regional ranger jobs.



The Fat-tailed Dunnart is a tiny carnivorous marsupial, weighing between 10 and 20 grams.



## 2. From pastoral leases to parks for people

### A rich history – a unique heritage

These lands bear the signs of close to 50,000 years of human habitation. Middens, scatterings of tools, rock shelters, burial sites and engravings tell of the first Australians, who used fire to improve productivity.

Fences, homesteads, dams and windmills tell of the Europeans who came with sheep and cattle from the 1860s on, enticed by the glowing reports of explorers. And old mine workings, shacks and machinery recall yet another influx of people, lured by gold in the late 1800s.<sup>1</sup>

The pastoralists settled first along the coast, then moved inland along the major river valleys. Initially, sheep flocks were managed by shepherds (often Aboriginal people) close to water. Then as fences were built and wells sunk, grazing spread and stock multiplied. Sheep numbers in the rangelands peaked at 5.5 million in 1934.

The history of Western Australia's pastoral industry has been tumultuous, with booms when wool and beef attracted high prices, and great hardships when prices fell or droughts descended. Sheep numbers in the Murchison fell from 840,000 in the mid-1930s to about 250,000 in 1940 after one savage drought, by the end of which about three-quarters of the saltbush and a quarter of the wattles were lost.

Early expectations about the carrying capacity of the country had been far too rosy. Inquiries held in response to downturns concluded that many pastoral leases were not viable.<sup>2</sup>

Calamity faced the industry in 1991 when world wool prices plunged and the Reserve Price Scheme was abandoned. According to the 1993 report of the Wool Industry Task Force, 30 to 60 percent of the pastoral wool enterprises had no future.<sup>3</sup> A significant restructure of the regional economy was required.



Colin Broad at the Warriedar homestead, 1955.

### Diversifying for regional development

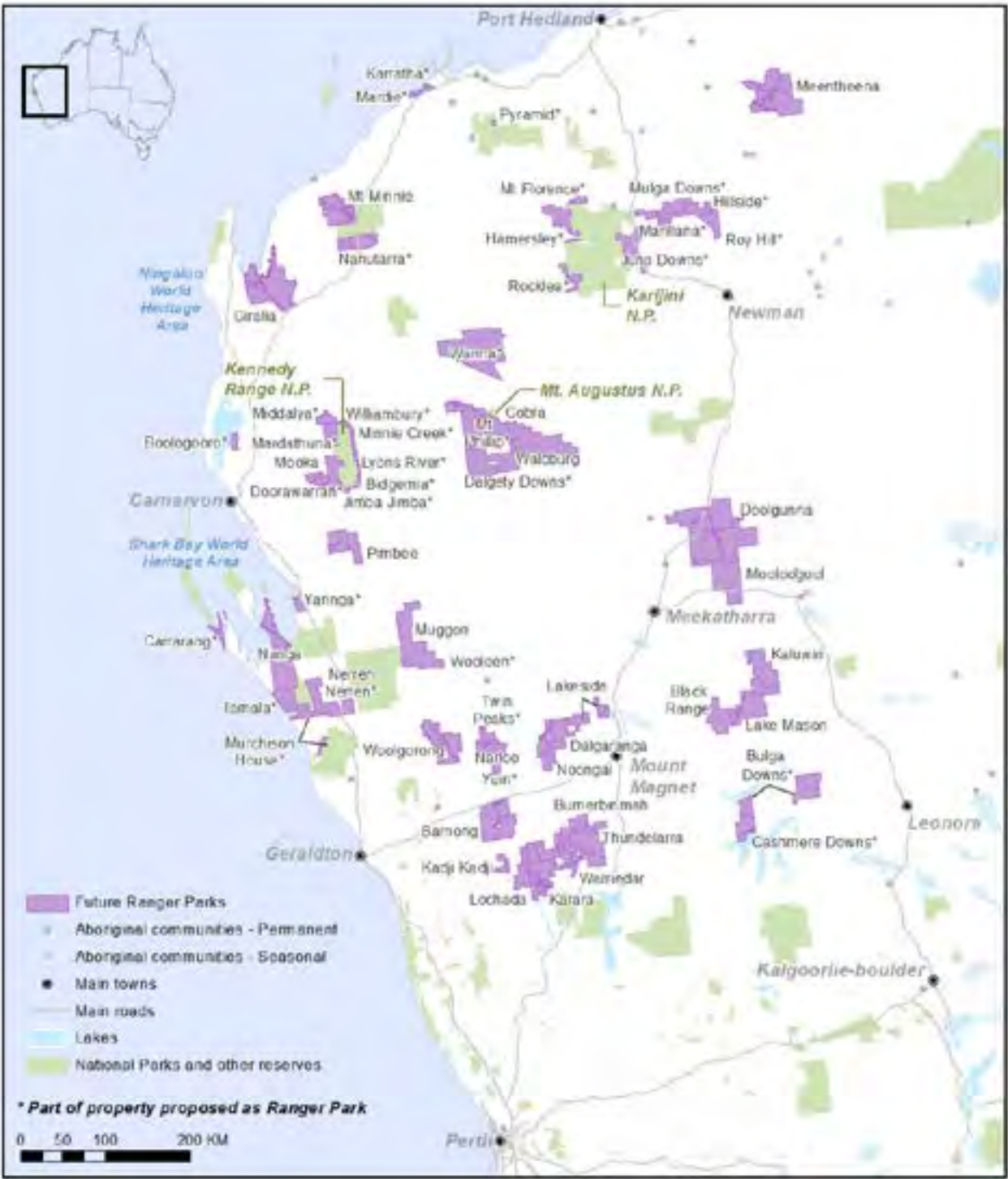
In 1997, the development of a strategy with long-term solutions was proposed for the Gascoyne-Murchison region. A major focus was to rejuvenate the regional economy by establishing conservation reserves and encouraging new tourism enterprises.<sup>4</sup> More than 90% of the region's vegetation types had less than 10% of their original area protected; many had none.

With \$6 million from the state and \$7.4 million from the Commonwealth, the Western Australian Government bought from willing sellers 32 whole and 28 part pastoral leases for the reserve system.<sup>5</sup> These were selected because they contain ecosystems with little existing protection, host threatened species and habitats, or will improve existing reserves.

But the intentions for these former pastoral lease properties have not been realised, and they remain in limbo as unallocated Crown land.

These properties are rich in human stories. The Create Ranger Parks proposal aims to ensure that this cultural heritage is conserved and the stories are shared.

### Parks for people: the location of the proposed Ranger Parks







*Breakaway country typical of the Murchison region.*



# 3.The Create Ranger Parks proposal

Create Ranger Parks is a new model for conservation that bundles proven success stories in an innovative program to bring about reliable social and economic outcomes. It combines public parks for conservation with Indigenous ranger programs in a low-cost public-private partnership approach to deliver multiple benefits in regional and remote Western Australia. This proposal arises from three years of conversation and consultation with a diversity of Traditional Owners, stakeholders and experts.

## So how does it work?

### Step 1 Indigenous rangers

Government contracts qualified and preferably locally-based non-government organisations that have a track record in delivering good land management and training. Their 10 year mission is to work with Traditional Owners to develop skilled and well-managed Indigenous ranger teams drawn from remote and regional communities, and to establish park infrastructure. This new, low-cost, public-private partnership approach to land management would be carefully introduced over time. It would start with a demonstration of 1 million hectares on properties where capacity and requests for ranger jobs are strongest, and would then extend to the remainder of the Ranger Parks network. After 10 years, or sooner if standards are met, ranger groups would assume full management responsibility. Each group is required to be accountable within state-wide development and conservation strategies set by government, in consultation with stakeholders in regional and metropolitan areas. Junior ranger programs to be established in remote and regional schools.

### Step 2 New parks

Finish the job started 20 years ago. Diversify regional land use and secure the opportunity that these former pastoral lease properties offer by declaring them joint-vested national parks or conservation parks. The Ranger Parks would be vested in Traditional Owner groups and government, and proceed only with Traditional Owner consent after the signing of Indigenous Land Use Agreements. All Ranger Parks would be gazetted within two terms of government with at least half listed as fully-protected A-class parks.

### Step 3 Regional and remote development

Identify and develop sustainable tourism, cultural and other regional development opportunities associated with the new Ranger Parks. Assign ‘preferred supplier status’ to nearby businesses, giving them an edge to win contracts to establish and service the Ranger Parks. Ensure infrastructure that is shared with neighbours receives priority attention.

### Step 4 Working together, managing country

Ensure that Ranger Parks are consistent with local and regional plans and aspirations. The Ranger Parks should complement, not compete with, existing projects, proposals and businesses. In genuine collaboration with surrounding neighbours, control weeds, feral animals and fire. Restore degraded areas, maintain infrastructure and protect natural and cultural values. Work with community groups to protect and restore our shared heritage.

### Step 5 Parks for people

Create opportunities for all Western Australians to enjoy these remarkable natural places by providing access, camping facilities and other infrastructure in ways that sustain the local plants and animals. Cater for different visitor demands, from well-serviced camp grounds through to wilderness experiences.

### Step 6 Evaluate and improve

Ensure high standards in delivering social, economic and conservation outcomes by establishing a comprehensive and transparent evaluation and auditing program. Reliable, independently gathered information will be needed to fine tune this innovative approach to park management.

## Foundational principles

In creating Ranger Parks, broad ownership and involvement will be important and key principles will be established. These include:

**Public access** – Ranger Parks will, like other parks in Western Australia, be open to the public. They are for all Western Australians to experience and enjoy.

**Aboriginal consent** – The Ranger Parks will not go ahead without the consent and involvement of Traditional Owners.

**Complementary approach** – The Ranger Parks should complement, not compete with, local projects, proposals and businesses.

**Budget boosting** – With funding to manage existing parks already inadequate, and the Ranger Park model generating significant savings in other priority areas of the state budget, Ranger Parks will not be funded from the state’s existing conservation budget.



Waterhole on the proposed Cobra Ranger Park.

**Public accountability** – Evaluating and meeting goals and standards is central to the Ranger Parks approach. Key Performance Indicators will be set, including measures such as working collaboratively with neighbouring landholders.

**Local focus** - Good neighbour relationships are vital and local knowledge is important in making the Ranger Parks valued regional assets. Using local people and local services will be an established priority.

**Existing arrangements** – Retaining any existing arrangements with people and businesses on the former pastoral lease properties will be an important part of Ranger Parks. While transitions may occur over time, collaboration and mutual agreement are at the heart of the Ranger Parks approach.

**Community involvement** – Ranger Parks will magnify their positive impact by working closely with volunteer and community groups to undertake programs such as citizen science and heritage restoration.



Wildflowers are a major tourism drawcard for Western Australia.





*Parks provide us with space to rejuvenate and take time out from our busy lives.*

## 4. Parks for people

### More parks for people

Ranger Parks will create opportunities for all Western Australians to enjoy some of our state's most remarkable natural places.

They will be parks for people – offering new camping and recreational facilities, places of exceptional beauty, dramatic landscapes for exploring, rich bird watching sites, and heritage sites of great cultural interest.

In modern society, having the ability to 'get away from it all' is becoming increasingly important to our physical and mental wellbeing.

Parks provide spaces to relax and rejuvenate, to reconnect with family and have fun with friends. Spending time in nature has been shown to reduce stress, keep our minds healthy and prevent anxiety and depression.

Parks also enable and encourage physical activity, helping us to stay healthy, fight obesity and prevent chronic conditions. Creating Ranger Parks will provide visitors with the opportunity to engage in a range of activities, including hiking, camping, horse-riding, fishing, cycling, surfing, four-wheel driving, rock climbing, scuba diving and outdoor education.

### Preserving our cultural heritage

Many Ranger Parks contain important Indigenous cultural and pastoral heritage sites that need restoring and safeguarding for the future.

As the traditional lands of Aboriginal Australians for tens of thousands of years, Ranger Parks are rich in cultural heritage. Creating Ranger Parks would protect 190 registered Aboriginal sites and parts of another 276 sites.<sup>6</sup> Importantly, they would also offer opportunities for maintaining the practices and connections of the world's most enduring cultures, and for sharing some aspects of these cultures with visitors.

There are also important examples of Western Australia's pastoral heritage on the Ranger Parks properties. Grand pastoral homesteads, shearing sheds, grave sites, dams, windmills and other historic sites are important reminders of an era that laid the foundations for our modern state. Without care, maintenance and involvement of neighbours and community groups, this heritage value could be lost forever.



*The world's largest rock, Burringurrah (Mount Augustus) is twice the size of Uluru and sits on the northern boundary of five Ranger Parks in the Gascoyne region.*



Safeguarding remarkable natural places

Among the dazzling wildflowers, wetlands and cragged vistas of the Ranger Parks lies an abundance of plants and animals that are incredibly special. The former pastoral lease properties were selected because they are home to threatened species and unique landscapes that should be conserved for future generations.

Ranger Parks will help to protect species and habitats unique to Western Australia, including many which are on the edge of survival such as northern quolls, bilbies and night parrots. Protection for world heritage sites at Shark Bay, wetlands of national importance, important bird areas and special breeding locations will be improved. Ranger Parks will connect reserves, buffer marine areas and build resilience against future threats, as well as safeguarding the vistas, wildlife and heritage that make Western Australia so special.

Ranger Parks will increase the area set aside for conservation in Western Australia from just 7% of the state to 9%, an increase of 5 million hectares.<sup>7</sup> While this in itself is impressive, what is even more noteworthy is the fact that many of the Ranger Parks are situated within bioregions that currently enjoy little or no protection in existing reserves. Increased protection of many of these bioregions is a national priority. For example, Ranger Parks will increase protection of the Tallingering subregion twelvefold from less than 2% to 24%, and the Fortescue subregion tenfold from less than 1% to 10%.<sup>8</sup>

Ranger Parks contain many rare and important species that are not found within any existing national park or nature reserve. A species of lily known as *Thysanotus sp. Lochada* is found only on one hill in the proposed Lochada Ranger Park<sup>9</sup> and a species of wattle, *Acacia woodmaniorum*, survives within a range just 10km wide on the proposed Karara Ranger Park.<sup>10</sup> What's more is that very few of the proposed Ranger Parks have been surveyed in detail and it is likely that many more unique and interesting species are yet to be discovered.

In addition to the abundance of flora, Ranger Parks will offer protection to a range of animals, from tiny underground crustaceans known as *Mangkurtu kutjarra* that have called the proposed Roy Hill Ranger Park home since pre-Gondwanan times<sup>11</sup>, to the elusive Night Parrot that has been sighted at the proposed Meentheena Ranger Park<sup>12</sup>, as well as a number of threatened and endangered mammals such as the Bilby, the Black-flanked Rock-wallaby and the Northern Quoll.



Little Red Kaluta, found in Ranger Parks in the Pilbara.





*Old cattle yards on the proposed Doolgunna Ranger Park.*



## 5. Indigenous Rangers

### A great success story delivering multiple benefits

The cornerstone of Ranger Parks are Indigenous rangers, recruited from local communities, whose traditional cultural practices have cared for our land for over 50,000 years.

Indigenous rangers are uniquely suited for management of the Ranger Parks. Many have a deep, cultural commitment to their country and can combine traditional knowledge with modern science to bring about conservation on a large scale. It's a new way forward to manage and protect the Outback places that make Western Australia so special.

Existing Indigenous ranger programs in areas of the Kimberley and other parts of Australia are a proven success. They offer real jobs and opportunities for sustainable economic independence in remote areas where jobs are often hardest to find. Recent reports show that ranger programs are producing unmatched results for Aboriginal people.<sup>13</sup>

### What do rangers do?

Indigenous rangers undertake a wide range of work, combining western scientific and traditional Aboriginal knowledge. Much of the rangers' core business in Ranger Parks will involve managing major threats to wildlife, protecting cultural heritage and maintaining infrastructure. Following established trends elsewhere in Australia, the rangers may also offer cultural tourism opportunities or secure government contracts to deliver services in remote locations.

Ranger work includes:

- managing fire and preventing wildfires
- monitoring and protecting threatened species
- controlling invasive species – feral animals and weeds
- biosecurity surveillance
- tourism management and growth
- restoring, mapping and protecting cultural heritage sites.

Ranger groups funded by the federal Working on Country program, which began in 2007, currently employ nearly 800 rangers and manage millions of hectares of land.

***“Integral to the success of ranger programs has been that they are led by the local community and supporter by community ownership and actions.”***

***- David Mackenzie, The Pew Charitable Trusts***

Rangers undertake difficult but vital work caring for nature and tackling the pressing challenges of damaging wildfires, uncontrolled feral animals and noxious weeds. Not only are they successfully protecting and managing our shared natural heritage but they are also transforming remote communities and offering hope to younger Aboriginal people.

64% of these rangers were managing threatening processes such as feral animals. 41% were managing weeds of national significance – weeds that present a serious threat to Australian agriculture and ecosystems. And 35% of rangers were working to protect threatened species.<sup>14</sup>

Additionally, almost half of the existing Indigenous ranger groups in Australia have progressed to delivering services on a fee-for-service basis.



*Nyangumarta Rangers on country in the Nyangumarta Warrarn Indigenous Protected Area, Western Australia.*



### Case study - Nyangumarta Warrarn Rangers

The Nyangumarta Warrarn Ranger group, based at Bidyadanga, south of Broome, Western Australia, was established in 2014 under the federal Working on Country program to manage the Nyangumarta Warrarn Indigenous Protected Area. The Indigenous Protected Area includes both desert and coastal areas.

In 2016, the ranger group employs eight rangers – both men and women – mentored by elders who accompany the rangers onto country to pass on their history and knowledge of the land.<sup>15</sup> This traditional cultural knowledge passed on by elders complements practical land management skills, developed through vocational training delivered by Greening Australia, and western scientific knowledge, contributed by visiting scientists.

In turn, rangers pass on their knowledge to the younger generation of Nyangumarta people and work alongside scientists to enhance knowledge and understanding of vegetation and bush tucker.

***“Going and working out on country with my other Nyangumarta Rangers and wearing our uniforms makes me feel really proud for who I am and what I do when in the uniform.”***

***- Charmaine Wright, Nyangumarta Warrarn Rangers***

The rangers' work on country includes: monitoring and protecting cultural sites; mending the fence along Eighty Mile Beach to protect areas of sensitive ecology; undertaking research in collaboration with universities, the local high school and government departments; completing first aid training to assist others when out on country; and undertaking bird and turtle surveys and monitoring.<sup>16</sup> The rangers are also involved in management of the Eighty Mile Beach Marine Park.



An investment in human potential: the benefits of Indigenous ranger programs

*“Living and working on country is like medicine for my people. Being a ranger is meaningful work that makes us feel good about ourselves. It is vital that our young people know their country and care for it. Ranger jobs are giving us hope for the future.”*

- Nyaparu Rose, CEO, Nyangumarta Warrarn Aboriginal Corporation

As real and culturally meaningful jobs in areas where employment is difficult to find, ranger jobs bring great benefits – not only to individual rangers, but also to their families and communities.

A study of federally-funded ranger programs shows that they are an employment success, with retention rates of 80% and a growing proportion of women employed as rangers. 34% of all positions and nearly 50% of casual ranger jobs are held by women.<sup>17</sup>

The Menzies School of Health Research found a link between participation in land and sea management activities and better health outcomes in Aboriginal communities.<sup>18</sup> Studies show significant reductions in alcohol-related problems and welfare dependency in association with ranger programs, as well as improved levels of education and health.

But it’s not just individual rangers who benefit. There’s less social unrest and substance abuse in communities, kids are more motivated at school because they see meaningful role models who offer hope and inspiration, and ranger programs provide an opportunity for the whole community to reconnect with their cultural heritage and priorities. Some communities have established junior ranger programs to encourage children and teenagers to spend time in the bush, connecting with older generations who can thus fulfill obligations to pass on knowledge and culture.



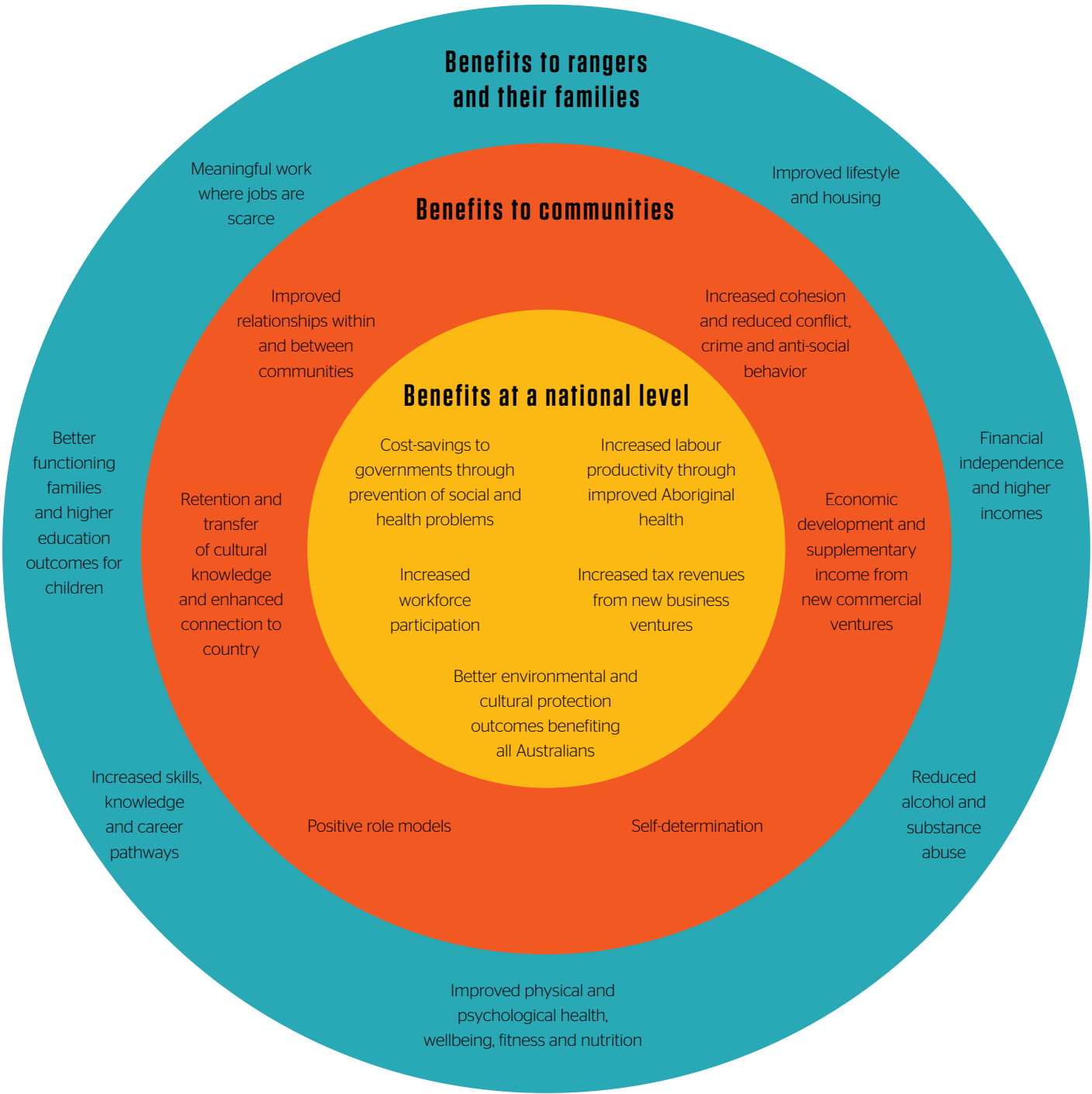
An important role of Indigenous rangers is caring for cultural sites, such as this Aboriginal painting on the proposed Doolgunna Ranger Park.

The economic case is just as compelling. An analysis commissioned by the Office of Prime Minister and Cabinet found that a \$35.2 million investment from government generated social, economic, cultural and environmental outcomes valued at \$96.5 million.<sup>19</sup> That’s a three-to-one return on investment.

And let’s not forget the environmental benefits. Under the Create Ranger Parks proposal, these rangers will be managing and protecting this incredible land and controlling feral animals and noxious weeds, ensuring future generations can enjoy these protected areas and the quality of life they provide.

Rangers are one of the great success stories of recent times. They are working to close the gap between Aboriginal and non-Aboriginal Australians, and have emerged as a real win for everyone.

Benefits of ranger programs<sup>20</sup>





What makes an Indigenous ranger program a success?

The Create Ranger Parks proposal has been developed based on analysis of the features critical to success in existing ranger programs, as identified in various independent evaluations.<sup>21</sup>

**Success factors for ranger programs**

**Indigenous ownership**  
Integral to the success of ranger programs has been that they are led by the local community and supported by community ownership and actions.

**In-built flexibility**  
A range of full time, part time and casual positions provides options for different circumstances and the flexibility for rangers and organisations to pursue other economic opportunities made possible by ranger work.

**Focus on cultural heritage and environment**  
Ranger work is meaningful for Traditional Owners due to its focus on caring for culture and country, keeping them connected with their land and engaged with community elders.

**Adequate resourcing**  
Ranger jobs are 'real jobs' and accordingly must be adequately resourced to ensure that rangers are paid at award rates.

**Funding stability**  
Funding certainty is needed to foster investment in training, encourage long-term planning, attract co-funders and partners, pursue long-term conservation and cultural heritage projects and in some cases supplement funding with fee-for-service work.

**A two-way learning model**  
Ranger programs work best when they apply both western scientific and traditional Aboriginal knowledge, and provide opportunities for cross-cultural sharing and learning.



Ranger Parks hold the potential for cultural tourism and Aboriginal enterprises.



Darren Capewell and Matthew Cross of the Malgana Working Group and Malgana Elder Gaven Poland.



# 6. Regional development

## Contributing to regional prosperity

As the dust settles on the mining jobs boom, Western Australia needs to create other, more sustainable economic opportunities, particularly in regional areas. As part of the solution, the state would do well to consider the assets – spectacular scenery, glorious wildflowers and rich cultural and natural heritage – currently languishing on the proposed Ranger Parks.

Ranger Parks could boost regional economies not only through ranger jobs but by employing regional businesses for the supply of goods and services, and facilitating new businesses, including tourism ventures and Indigenous services.

## Developing regional tourism

Opening 5 million hectares of Ranger Parks could substantially enhance regional tourism. Nature tourism is already a major pillar of the state's economy, and protected areas are the main basis for Western Australia's tourism profile.<sup>22</sup> They attracted over 14 million visits in 2009-10.

The Ranger Park status of these properties could have powerful brand value – adding cultural and conservation significance to the raw appeal of landscape and nature.

A 2008 analysis of the tourism potential of the proposed Ranger Parks in the Gascoyne Murchison area (by the Sustainable Tourism Cooperative Research Centre) concluded that many had good potential “in terms of spectacular and unique landscapes, cultural heritage artefacts and wilderness style experiences”.<sup>23</sup> Their primary strength, the CRC said, is offering “a true outback experience”.<sup>24</sup> The expansive landscapes, distinctive geological formations and the rich Aboriginal and pastoral heritage could combine to form a “unique product”.<sup>25</sup>

Ranger Parks offer tremendous potential to entice tourists inland. Currently, tourism is focused on the coast – in 2008 the Kalbarri, Shark Bay and Ningaloo areas attracted 110,000 visitors, but only

4000 - 6000 went inland.<sup>26</sup> Achieving the tourism potential of Ranger Parks will require developing a wide variety of potential attractions, on and off the parks, based on wildflowers, wildlife, Aboriginal cultural heritage, pastoral and mining heritage, drive trails, geological features, Outback adventure and volunteer opportunities.

## Supplying goods and services

Regional businesses would benefit from Ranger Parks. This proposal has a strong focus on developing business opportunities and local jobs. This includes a ‘preferred supplier’ policy favouring local supply of services, equipment and goods for work on the Ranger Parks. Apart from Indigenous ranger jobs, local work opportunities would arise from additional conservation and tourism projects.

## Fostering Aboriginal economic activity

Ranger Parks can be a seed for future economic sustainability for Aboriginal communities. Skills and experience gained by Indigenous rangers would increase their capacity to participate in the external economy, and create more jobs and business opportunities in remote communities.

Existing Indigenous ranger programs have frequently led to other economic opportunities, with about 40% of ranger groups delivering additional services on a commercial basis.<sup>27</sup>

Opportunities associated with Ranger Parks are likely to include ecotourism, fire management services, feral animal and weed control, cultural heritage work, and support for researchers. Potential contractors include government agencies, research institutions, tourism organisations, mining companies, pastoralists and conservation organisations.

This potential has been enhanced by procurement policies. The federal government has a target of 3% of procurement contracts to be with Aboriginal businesses by 2020, worth around \$135 million each year.<sup>28</sup> Western Australia has also committed to fostering Aboriginal businesses through the 2012 Open and Effective Competition Policy.<sup>29</sup>



Natural and cultural heritage are a major drawcard for international and domestic visitors alike.



# 7. Working with the community

## Working to protect our shared heritage

For over a century, the former pastoral lease properties proposed here as Ranger Parks have been an important part of regional communities. The Create Ranger Parks proposal intends that they will remain so in future.

The most effective way to protect the natural and cultural heritage of these properties is by continuing the community tradition and collaborating with neighbours, volunteer and community groups and other stakeholders.

One foundational principle of the Create Ranger Parks model is respect for the knowledge of Traditional Owners, pastoralists, government agencies and scientists. It will be important to develop management processes to ensure knowledge is shared and management is collaborative.

## Local knowledge and involvement

Many pastoralist neighbours have been critical of the Western Australian Government for poor management of the former pastoral lease properties. A 2010 parliamentary inquiry prompted by these concerns found that relationships with neighbouring pastoralists were poor in many areas and that the properties and local people would benefit from a high level of community involvement.<sup>30</sup>

Creating Ranger Parks will allow a fresh start. Good neighbour relationships will become a top priority and a key performance indicator for Ranger Park managers. This will entail respecting local knowledge, ensuring that neighbours have a voice in shaping management priorities and collaborating to meet shared goals.

The Create Ranger Parks model envisions active involvement by neighbours and other locals in park management processes. This is considered important for tapping into local knowledge and integrating Ranger Parks into local communities.

Recognising that the proposed Ranger Parks are part of a mosaic of properties with varying land uses, the model includes a commitment to

contribute to local and regional strategies, particularly where on and off-park biosecurity goals overlap with conservation priorities.

Effective management of feral animals, weeds and fire on Ranger Parks will also reduce the damage on neighbouring properties. Although the priorities in managing for nature differ to some extent with managing for livestock, park managers and neighbouring pastoralists could benefit greatly from working together on shared goals. Feral camels, for example, can be a major scourge for both pastoralists and park managers in dryer areas, and tenure-blind cooperative approaches make sense to benefit the whole landscape.

## Aboriginal cultural sites

An important focus of Ranger Park management will be protecting Aboriginal cultural sites and natural values important to Traditional Owners. Although the Ranger Parks will be managed by Indigenous rangers, other Aboriginal people will need to be consulted to ensure that the right people are involved in management decisions to protect the Ranger Parks' 466 registered Aboriginal sites.

## Magnifying impact through the community

Under the Create Ranger Parks model, the involvement of other groups and stakeholders – such as four-wheel drive clubs, conservation groups, the tourism industry and science organisations – will be encouraged and nurtured. Such relationships have the potential to boost protection of natural and cultural values and to realise the potential of Ranger Parks for providing recreation and tourism opportunities.

Four-wheel drive clubs have a long history of contributing to track maintenance and preserving cultural sites in remote areas, including within proposed Ranger Parks. Conservation groups and scientists, including citizen science groups, will continue to help reveal and manage the outstanding natural values of these properties. And tourism bodies will be vital for developing tourism strategies and helping enhance Ranger Parks for visitors.

## Case study - Track Care

Track Care WA Incorporated was formed in 1997 by four-wheel drive recreationalists concerned that the tracks they loved using were at risk of being loved to death. Track Care's primary objective is to "maintain access for the future" so that off-road vehicle bush-tracks will remain accessible for four-wheel drive recreational purposes.

As well as helping to protect the environment and maintain tracks, Track Care members assist in conserving relics of Western Australia's pastoral heritage. Members use four-wheel drive vehicles to transport construction material to remote Outback areas and undertake work such as repairing dilapidated homesteads and other buildings.

One of Track Care's recent projects was restoration work on the former Woolgorong Station out-camp, 170 kilometres north-east of Geraldton. Taken up by Michael Morrissey in 1873, Woolgorong was one of the earliest pastoral leases in the Midwest. The out-camp was built in the late 1800s and was the original station homestead until 1907 when a new

homestead was constructed in a location more central to the property. Woolgorong is now one of the proposed Ranger Parks, having been purchased by the Western Australian Government for conservation.

Track Care members also work to maintain a balance between four-wheel drive recreation and conservation by working with non-government Outback land managers to achieve shared goals. The Canning Stock Route provides many such examples.

In 2014, with guidance from the leaseholder of Cunyu Station, electrified fencing was erected to protect Well 4B from large feral animals and water control bunds were installed to mitigate soil erosion along the track. In 2015, in conjunction with Birriliburu Rangers, a walk trail, fence and interpretive sign shelter was installed at Windich Springs together with a shelter and other signage on the track to Well 9. More cooperative work is planned for the area near Well 49 on the Canning Stock Route in conjunction with Ngurrara Rangers who are based in the small community of Djugerari (also known as Cherrabun) south-east of Fitzroy Crossing.



Woolgorong Station out-camp before and three years after project commencement. Volunteers blended the old with the new, installing new windows and doors alongside the original mud bricks and reconstructing the existing walls and roof.







Lawrence Hillary

*The Kennedy Range National Park will become an even more spectacular natural asset through the addition of parts of 9 surrounding pastoral leases.*



# 8. Benefits and costs of creating Ranger Parks

## A regional initiative with multiple benefits

When the Western Australian Government purchased specially selected pastoral leases for conservation 20 years ago, it had a positive and visionary goal – to help diversify and strengthen regional economies and protect our state’s unique Outback landscapes for future generations.<sup>31</sup> Back then, the benefits of this approach were clear.

Today, with proven knowledge of the multiple social and economic benefits of Indigenous ranger programs from around Australia and an opportunity

to implement the Create Ranger Parks proposal, the case to declare these former pastoral lease properties as parks is even more compelling.

This new, low-cost public-private partnership model of land management will provide real employment for remote and regional Aboriginal communities. It will strengthen our regions in a post-boom economy, save rare and important species, resolve long-standing conflict between government and pastoral leaseholders and create more parks that allow more people to experience our incredible Outback.

Create Ranger Parks will allow these properties to reach their full potential.

### Benefits for Western Australians

1.

Creation of 212 regional and remote jobs for Western Australian Aboriginal people.
2.

Proven health and social benefits in disadvantaged remote communities – including reduced rates of imprisonment and welfare dependence, stronger connections between elders and younger generations and a greater sense of pride and purpose.
3.

Savings in priority areas of government expenditure such as health, policing, corrective services, housing and welfare. For every \$1 invested, \$3.70 worth of value will be created for Western Australia, of which \$2.30 will be a direct benefit for government.
4.

Greater government efficiencies in delivering triple bottom line outcomes via a new public-private partnership model with non-government organisations.
5.

Increased return on investment, accountability and standards in land management.
6.

Increased regional development opportunities via tourism nodes and cultural enterprises within Ranger Parks.
7.

Five million hectares of new parks for people, showcasing Western Australia’s exceptional biodiversity.
8.

Improvements in relations with pastoral leaseholders due to new potential sources of income, improved shared infrastructure and greater input on park management priorities.
9.

The ‘jewels in the crown’ of Western Australia’s Outback will be protected, addressing shortcomings in reservation targets and protection of rare and endangered species. Almost 500 Aboriginal heritage sites will be offered protection and knowledge will be passed onto younger generations. Pastoral heritage will be preserved.
10.

Create Ranger Parks will support the implementation of existing policies, plans and initiatives, including Regional Development Commission Blueprints, ‘Closing the Gap’ in Indigenous disadvantage and the Western Australia Auditor-General’s Report on Suicide Prevention.



## Supporting programs that build a stronger Western Australia

Creating Ranger Parks will help deliver important government financial and policy objectives. Most notably, it will assist the government toward:

1. Meeting targets for procuring goods and services from Aboriginal-owned businesses by increasing the number of skilled fee-for-service businesses on the supply side.

2. Greater departmental savings by allowing activities in remote locations to be conducted by local, qualified work teams rather than spending taxpayer funds flying in departmental staff from Perth or regional centres.

3. Meeting a range of important government goals such as reducing reoffending rates and increasing prescribed burning to protect lives and property.

4. Advancing all six objectives of Royalties for Regions and corresponding Regional Development Commission Blueprints.

5. Improving school attendance and performance levels through the implementation of junior ranger programs in remote and regional schools.
6. Fulfilling threatened species program objectives and Western Australia’s national and international commitments to biodiversity conservation.

7. Meeting Council Of Australian Governments targets for Closing the Gap.

8. Progressing the Regional Services Reform program to improve the lives of Aboriginal people in regional and remote Western Australia.

9. Addressing long-running conflict with neighbouring properties through better resourcing and inclusive management.

10. Meeting the goals of the Commonwealth Indigenous Advancement Strategy and the Western Australian Aboriginal Economic Participation Strategy.



Maintaining Western Australia’s pastoral heritage is a priority of the Create Ranger Parks proposal.



The costs and savings of creating Ranger Parks

Social Ventures Australia Consulting leads the field in SROI (social return on investment) analysis of Indigenous ranger programs in Australia. It was commissioned to conduct a ten year forecast cost benefit analysis for the Create Ranger Parks proposal and to look at likely costs of setting up and running the ranger programs. See Appendix 1 for the full report.

It assumed that 25 ranger groups will be needed when all Ranger Parks are under management, with coordinators in each group and a central management team being established to support the programs and to seek out and develop partnerships to leverage third party investment and additional economic opportunities.

Consistent with staffing in other ranger programs around Australia, it estimated that 212 rangers (100 full-time equivalent rangers) will be required to effectively manage Ranger Parks each year. This amounts to four full-time equivalent rangers for each of the 25 ranger groups.

The research found that for every \$1 invested, \$3.70 worth of value would be created for Western Australians, of which \$2.30 would be a direct benefit to government. This estimate does not include potential income

and expenditure associated with tourism or other commercial ventures, or carbon credits earned through carbon sequestration on Ranger Parks.

The cost of the proposal was estimated at a yearly average of \$11.5 million, which would result in an annual direct benefit to Western Australia of \$42.7 million and an annual direct benefit to government of \$26.5 million.

“The benefits that accrue to government are vast and varied. They include rangers being skilled and trained, reduction in income support, increase in income tax, improved engagement with Indigenous communities and low cost land management.”

Social Ventures Australia, October 2016 32

Cost savings

Analysis of Working on Country programs has shown that they save government money by reducing the costs of public health, policing, corrective services, public housing and welfare in communities with these programs. For example, Social Ventures Australia Consulting estimated that the programs run by Kanyirninpa Jukurrpa in the western desert of the Pilbara have produced savings of \$13 million over five years due to less alcohol-

related crime and lower imprisonment rates, as well as services delivered such as protection of cultural heritage sites. Allen Consulting reported that the true cost of Working on Country programs was up to 23% lower than the budgeted cost due to reduced welfare costs and higher tax revenue. They reported that additional savings can come from improved health, reduced crime and stronger cultural associations.



Carrarang Ranger Park is the most westerly point of mainland Western Australia.



# 9. We can't do it without you

Create Ranger Parks is a visionary proposal to change lives, create jobs and protect nature.

As a community-based initiative, we need your support to make this vision a reality.

Please add your name, or the support of your organisation, to our supporter's page at **CreateRangerParks.org.au**

The greater the support, the more chance we have to make Ranger Parks another great success story.



CreateRangerParks.org.au

# References

1. Brandis AJ (2008) *Rescuing the Rangelands: management strategies for restoration and conservation of the natural heritage of the Western Australian rangelands after 150 years of pastoralism*. WA Department of Environment & Conservation, Perth.

2. Brandis (2008) (See note 1).

3. Brandis (2008) (See note 1).

4. Hughes M, Jones R (2011) From productivism to multi-functionality in the Gascoyne-Murchison Rangelands of Western Australia. *The Rangeland Journal* 32(2), 175-185.

5. Economics and Industry Standing Committee (2010) *The Department of Environment and Conservation's management of former pastoral leases*. Legislative Assembly, Parliament of Western Australia.

6. Department of Aboriginal Affairs (2016) Register of Aboriginal Sites. Government of Western Australia.

7. Western Australian Department of Parks and Wildlife (2014). Collaborative Australian Protected Areas Database (CAPAD) 2014. Commonwealth of Australia, <<https://www.environment.gov.au/land/nrs/science/capad/2014>>.

8. Collaborative Australian Protected Areas Database (CAPAD) 2014. Commonwealth of Australia, <<https://www.environment.gov.au/land/nrs/science/capad/2014>>.

9. Bush Blitz (2012) Charles Darwin Reserve, Kadji Kadji, Karara, Lochada Reserves Western Australia, 2009. A Bush Blitz survey report. Australian Biological Resources Study, Canberra.

Western Australian Herbarium (1998-) *Thysanotus* sp. Lochada (T.D. Macfarlane 4860). FloraBase - the Western Australian Flora, Department of Parks and Wildlife, <<https://florabase.dpaw.wa.gov.au/browse/profile/36076>>.

10. Bush Blitz (2012) (See note 9).

Western Australian Herbarium (1998-) *Acacia woodmaniorum* Maslin & Buscumb. FloraBase - the Western Australian Flora, Department of Parks and Wildlife, <<https://florabase.dpaw.wa.gov.au/browse/profile/30460>>.

11. Poore GCB, Humphreys WF (2003) Second species of *Mangkurtu* (Spelaeogriphaceae) from north-western Australia. Records of the Western Australian Museum 22, 67-74.

12. Davis RA, Metcalf BM (2008) The Night Parrot (*Pezoporus occidentalis*) in northern Western Australia: a recent sighting from the Pilbara region. *Emu* 108(3), 233-236.

13. Pew Charitable Trusts, Synergies Economic Consulting (2015) *Working for Our Country: A review of the economic and social benefits of Indigenous land and sea management*. Pew Charitable Trusts, <[http://www.countryneedspeople.org.au/working\\_for\\_our\\_country\\_report](http://www.countryneedspeople.org.au/working_for_our_country_report)>.

14. Australian Government Land and Coasts Caring for our Country Review Team (2012) *Report on the Review of the Caring for our Country Initiative*. Australian Government, <[http://smtp.auricht.com/docs/aclep/c4oc\\_report\\_on\\_review\\_2012\\_a.pdf](http://smtp.auricht.com/docs/aclep/c4oc_report_on_review_2012_a.pdf)>.

15. Rose N (2016) interviewed on SBS Radio, 18 February 2016, <<http://www.sbs.com.au/yourlanguage/aboriginal/en/content/indigenous-ranger-programs-under-threat>>.

16. Nyangumarta Rangers (2016) Nyangumarta News 1(1), <[http://ymac.org.au/wp-content/uploads/2016/07/Nyangumarta-News-July-2016\\_Resize-medium.pdf](http://ymac.org.au/wp-content/uploads/2016/07/Nyangumarta-News-July-2016_Resize-medium.pdf)>.

17. Pew Charitable Trusts, Synergies Economic Consulting (2015) (See note 13).

18. Burgess CP, Johnston FH, Berry HL, McDonnell J, Yibarbuk D, Gunabarra C, Mileran A, Baillie RS (2009) Healthy country, healthy people: The relationship between Indigenous health status and 'caring for country', The Medical Journal of Australia 190, 567-572, <<https://www.mja.com.au/journal/2009/190/10/healthycountry-healthy-people-relationship-between-indigenoushealth-status-and>>.

19. SVA Consulting (2016) Social Return on Investment analysis of the Birriliburu and Matuwa Kurrara Kurrara Indigenous Protected Areas, full report. February 2016. Social Ventures Australia.

20. Adapted from Synergies Economic Consulting summary, page 26 in Pew Charitable Trusts, Synergies Economic Consulting (2015) (See note 13).

21. Pew Charitable Trusts, Synergies Economic Consulting (2015) (See note 13).

22. Department of Regional Development and Lands (2010) *Business case proposal for rangelands infrastructure and access improvement initiative*. Government of Western Australia.

23. Smith A, Hughes M, Wood D, Glasson J (2008) *Inventory of tourism assets on Department of Conservation and Land Management rangeland properties: Gascoyne and Murchison regions, Western Australia*. CRC for Sustainable Tourism Pty Ltd, Queensland.

24. Smith et al. (2008) (See note 21).

25. Smith et al. (2008) (See note 21).

26. Smith et al. (2008) (See note 21).

27. Pew Charitable Trusts, Synergies Economic Consulting (2015) (See note 13).

28. Cormann M, Scullion N (2015) Commonwealth taking steps to increase Indigenous jobs. Joint media release, 17 March 2015, Australian Government, <<http://minister.indigenous.gov.au/media/2015-03-17/commonwealth-taking-steps-increase-indigenous-jobs>>.

29. Department of Finance, Building Management and Works (2013) Open and Effective Competition. Policy: Procurement. Government of Western Australia, July 2013, <[https://www.finance.wa.gov.au/cms/uploadedFiles/Building\\_Management\\_and\\_Works/Policy/policy\\_open\\_and\\_effective\\_competition.pdf?n=2449](https://www.finance.wa.gov.au/cms/uploadedFiles/Building_Management_and_Works/Policy/policy_open_and_effective_competition.pdf?n=2449)>.

30. Economics and Industry Standing Committee (2010) (See note 5).

31. Hughes and Jones (2011) (See note 4).

32. SVA Consulting (2016) *Create Ranger Parks: Cost benefit analysis of the 'Create Ranger Parks' regional development program, summary report*. October 2016. Social Ventures Australia.



# APPENDIX 1

## CREATE RANGER PARKS

### COST BENEFIT ANALYSIS OF THE ‘CREATE RANGER PARKS’ REGIONAL DEVELOPMENT PROGRAM

#### SUMMARY REPORT

OCTOBER 2016

## About Social Ventures Australia

Social Ventures Australia (SVA) works with innovative partners to invest in social change. We help to create better outcomes for disadvantaged Australians by bringing the best of business to the for-purpose sector, and by working with partners to strategically invest capital and expertise. SVA Impact Investing introduces new capital and innovative financial models to help solve entrenched problems. SVA Consulting partners with non-profits, philanthropists, corporations and governments to strengthen their capabilities and capacity to address pressing social problems.

SVA has extensive experience analysing Indigenous Programs for the Australian Government and non-profit organisations. This work has included:

- Two Social Return on Investment analyses of Kanyirninpa Jukurrpa’s (KJ) on-country programs, including Indigenous land management activities funded through the Australian Government’s Working on Country (WoC) programme;
- Social Return on Investment analyses of five Indigenous Protected Areas (IPAs) for the Department of the Prime Minister and Cabinet (PM&C); and
- Three predictive Social Return on Investment analyses of selected projects funded under the Indigenous Justice Programme (IJP) for PM&C.

SVA has also worked closely with the Kimberley Land Council’s Land and Sea Management Unit, which manages ten WoC funded ranger groups and seven IPAs in Western Australia.

---

*SVA has prepared this report in good faith on the basis of our research and information available to us at the date of publication (“Information”) without any independent verification. SVA does not guarantee the accuracy, completeness or currency of the Information. This report was prepared by SVA for the use and benefit of our client only and solely for the purpose for which it was provided. It must not be relied upon by any third party without SVA’s consent. SVA does not accept any liability if this report is used for an alternate purpose from which it was intended, nor to any third party in respect of this report. This work is copyright. Apart from any use permitted under the Copyright Act 1968, no part may be reproduced by any process or in any form by any third party without obtaining prior written consent from SVA and our client. Requests and inquiries concerning reproduction and rights should be addressed to: Social Ventures Australia: attention Director, Legal, Level 6, 6 O’Connell Street, Sydney NSW 2000.*



# Table of Contents

About Social Ventures Australia		
1	Executive Summary	1
1	Context	3
1.1	The ‘Create Ranger Parks’ concept	3
2	Objectives, key assumptions and methodology for this analysis	4
2.1	Report Objectives and Scope	4
2.2	Key assumptions	4
2.3	Methodology (Summary)	5
3	Estimated benefit cost ratio of the ‘Create Ranger Parks’ concept	8
3.1	Benefit cost ratio (BCR)	8
3.2	Estimated benefits	9
3.3	Required investment	16
3.4	Sensitivity analysis	18

# Executive Summary

## About the ‘Create Ranger Parks’ concept

The ‘Create Ranger Parks’ concept is being explored and presented by Create Ranger Parks and its supporters. It identifies what would happen if the State Government committed to the creation of a five million-hectare network of A-class jointly vested national parks in Western Australia (between the State and the relevant Native Title group for the area).

The solution proposed by Create Ranger Parks and its supporters is a Traditional Owner and Non-Government organisational partnership for management of these properties which involves creation of Indigenous ranger jobs in remote and regional areas to manage the land. The initiative would provide real employment opportunities and associated social and cultural outcomes for Aboriginal communities.

## Aims and outcomes of this analysis

SVA Consulting has undertaken a cost benefit analysis (CBA) of the program to estimate the value of the expected economic, social, cultural and environmental benefits that would arise if the concept was effectively implemented and delivered. SVA Consulting’s previous Social Return on Investment (SROI) analyses of existing ranger programs have been used as a basis for many of the assumptions in this analysis. Existing research has also been used and input has been provided by experts in land management and Indigenous populations in the area being considered (the Midwest Gascoyne region).



Estimated impact of the ‘Create Ranger Parks’ concept

This analysis demonstrates that if implemented appropriately, significant economic, social, cultural and environmental outcomes would be generated for Government, rangers and communities.

As evidenced through other analyses, Indigenous ranger programs have demonstrated success, engaging Indigenous Australians in meaningful employment whilst also achieving large scale conservation outcomes. The ‘Create Ranger Parks’ concept could provide opportunities for Indigenous groups in WA to reconnect with and actively manage their traditional country.

The CBA undertaken estimates that the program represents value for money with a benefit cost ratio (BCR) of 3.7:1 when considering economic, social, environmental and cultural benefits for all stakeholders, and 2.3:1 when only including the economic benefits for Government. This means that for every \$1 invested, approximately \$3.7 of social, economic, cultural and environmental value will be created for stakeholders. The BCR was generated by comparing the total value of the adjusted outcomes experienced by stakeholders to the investment required to create the value.

The benefits that accrue to Government are vast and varied. They include rangers being skilled and trained, reduction in income support, increase in income tax, improved engagement with Indigenous communities and low cost land management. Ranger programs can also be a useful instrument for leveraging third party investment and thus reducing reliance on Government funding over time. Reduced offending and crime are significant benefits resulting from rangers having increased confidence, pride and meaningful employment.

For rangers and the community, the most significant outcomes include better caring for and connection to country, increased confidence, pride and sense of self, increased income and an ability to care for family, and more burning of country using cultural practices.

The achievement of these outcomes for all stakeholders is entirely dependent on Indigenous Traditional Owners (TOs) being engaged on country. The more time Indigenous TOs spend working on country the greater the value that will be generated through the ranger programs.

1.Context

1.1 The ‘Create Ranger Parks’ concept

The ‘Create Ranger Parks’ concept is being researched by Create Ranger Parks and its supporters. It explores what would happen if the State Government committed to the creation of a five million-hectare network of jointly vested national parks in Western Australia.

The five million hectares is made up of 66 former pastoral lease properties which have already been purchased for conservation, but are yet to be formally gazetted. These properties are high in biodiversity, with significant conservation and heritage values but they currently sit idle, contributing little to regional economies, generating conflict with neighbouring pastoralists over land management and degrading WA’s outback heritage.<sup>1</sup>

The likely properties that will make up the five million hectares are shown on the map below.



Figure 1.1 High priority properties purchased for conservation in Western Australia that make up the ‘Create Ranger Parks’ concept.

<sup>1</sup>Economics and Industry Standxaing Committee, The department of Environment and Conservation’s Management of Former Pastoral Leases. Report No. 4, 2010.



# 2. Objectives, key assumptions and methodology for this analysis.

## 2.1 Report Objectives and Scope

Create Ranger Parks and its supporters commissioned SVA Consulting to conduct a forecast cost benefit analysis (CBA) to estimate a Benefit Cost Ratio (BCR) for the ‘Create Ranger Parks’ concept.

This report considers and estimates the social, economic, cultural and environmental benefits that could be realised for Government, rangers and communities if the ‘Create Ranger Parks’ concept is adopted. It also looks at the likely costs of setting up and running the ranger programs and therefore the estimated BCR.

The scope of the analysis looks at a range of 66 properties that make up five million hectares in the Midwest Gascoyne region over a 10-year period (nominally 2016/17 through to 2025/26).

## 2.2 Key assumptions

It is understood that Indigenous Land Use Agreements (ILUAs) will need to be negotiated with Traditional Owners before the ranger programs can be established. In this analysis we have assumed that twenty-five ILUAs will need to be negotiated. This is because there are twenty-five TO groups that cover the properties that make up the five million hectares. In the CBA model we have assumed that the ILUAs will be negotiated in the first year and then the ranger programs will be established in the following year. This marks the start of both costs and benefits materialising as a result of the ranger programs.

We have assumed that twenty-five ranger groups will be required to cover the properties with coordinators in each group but that a central management team will be established to support the programs and to seek out and develop partnerships to leverage third party investment and additional economic opportunities. This is akin to the model used by the Kimberley Land Council.

Many of the cost and benefit assumptions in the model are driven by the acreage of the properties and the number of rangers required to manage the land. The properties being considered total 5,000,000 hectares and we have assumed that all of this land would be actively managed by ranger groups.

Rangers include Indigenous people who work on country as part of the ‘Create Ranger Parks’ proposal, whether on a casual or permanent basis. We have estimated the number of rangers using averages from other ranger groups that SVA has analysed in the past two years. This has been verified with reference to the experience of the Kimberley Land Council and Central Desert Native Title Services.

We estimate that 212 rangers (100 full-time equivalent (FTE) rangers) will be required to effectively manage the land during each year of the analysis period. This amounts to 4 FTE’s for each of the twenty-five ranger groups made up of 4 permanent (0.75 FTE) and 4 casual (0.2 FTE) rangers. This assumption is consistent with what we have seen across other ranger groups that we have analysed and is consistent with the number of rangers and full-time equivalent positions funded through the federal WoC programme. This assumption is important as many of the benefits are only likely to be realised by rangers who work on country regularly.

## 2.3 Methodology (Summary)

To undertake this analysis we followed a six stage process. The summary process is outlined below and more detail including information on quantities, financial proxies, valuation techniques and Social Return on Investment (SROI) filters has been provided in a separate methodological attachment.



### Step 1: Identify stakeholders and define material outcomes

We have relied on SVA analyses and other published evaluations of existing ranger groups to determine stakeholders that will benefit from the concept and prioritise material outcomes for each. For simplicity only Government, ranger and community outcomes are included.

### Step 2: Estimate change

In order to estimate the quantum of change (e.g. how many people the outcome is relevant to) we have heavily relied on previous evaluations (and the associated stakeholder consultation) and other quantitative data.

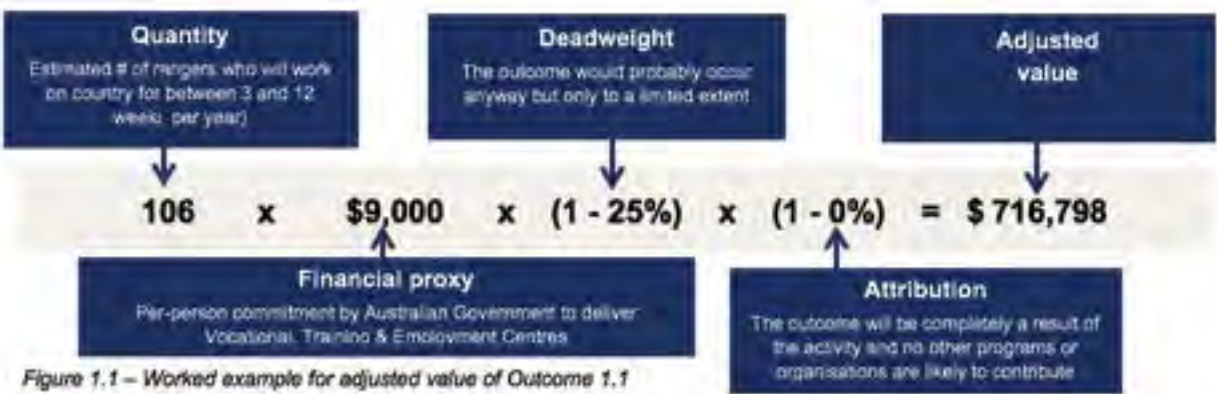


Step 3: Value likely change

The total adjusted value is then calculated for each outcome, which takes into account the following:

- Quantity: the number of stakeholders who will experience an outcome (identified in step 2)
- Financial proxy: value of the outcome
- SROI filters: accounting for whether the outcome might happen anyway (deadweight), who else might contribute (attribution), whether the outcome might displace other activities or outcomes (displacement), how long it will last for (duration) and how it changes over time (drop off).

Financial proxies are used to value an outcome from the stakeholder’s point of view using a range of techniques. This is particularly important when valuing social outcomes or cultural outcomes where there isn’t an existing market value. This adjusted value represents the value of the outcome that can be solely attributed to the investment described in this analysis. A worked example of the adjusted value for the ranger outcome 1.1 ‘Rangers are skilled and trained’ is set out in the diagram below:



Step 4: Estimate required investment

As explained in more detail in section 3.3 the cost of setting up and running ranger programs has been estimated by Rob Thomas, of In Common Consulting based on his experience with designing and implementing programs against a similar socio-economic context within the southern rangelands (e.g. Wiluna Region) and validated by comparing these estimates with the investments made into other existing ranger programs.

Step 5: Calculate the Benefit Cost Ratio (using discounted cash flow (DCF) modelling)

The value of costs and benefits are projected to occur into the future and are discounted to 2016/17 dollar terms using a traditional DCF framework. As per PM&C Office of Best Practice Regulation (OBPR) guidance:

- Inflation has not been applied to future benefits and costs
- Costs and benefits have been calculated in real terms
- A real discount rate of 7% per annum has been adopted (although a sensitivity test has been completed utilising a lower bound discount rate of 3% and an upper bound discount rate of 10%)
- Once the future values are discounted, the value of costs and benefits in net present terms (NPV) are compared to derive a BCR.

The BCR is an indicator that attempts to summarise the overall value for money of a project or proposal. The BCR is a comparison of the value of the projected benefits to the value of the estimated investment. It's expressed in numerical terms e.g. 3.7:1 which means that for every dollar invested, an estimated \$3.7 of value will be returned.

In this report we have calculated two BCR's:

1. Holistic case = Outcomes realised for all stakeholders / total investment
2. Government outcomes only case = Outcomes realised for Government / total investment

Step 6: Undertake sensitivity analysis

It is important that BCR calculations are tested by understanding how the judgements made throughout the analysis affect the final result. The judgements that are most likely to influence the overall BCR ratio were identified as well as those which are backed in the least robust evidence, and a sensitivity test was conducted to see how sensitive the BCR's are to changes in the judgements.

Further detail about the methodology, including indicators and financial proxies used to calculate values, is set out in the methodological attachment to this report.

<sup>2</sup> <https://www.dpmmc.gov.au/office-best-practice-regulation/publication/cost-benefit-analysis-guidance-note>



# 3 .Estimated benefit cost ratio of the ‘Create Ranger Parks’ concept

## 3.1 Benefit cost ratio (BCR)

The BCR is generated by comparing the total value of the adjusted outcomes experienced by stakeholders to the investment required to create the value.

### 1. Holistic case:

The ‘Create Ranger Parks’ concept will result in a BCR ratio of 3.7:1 over the 10 year period.  
That is, for every \$1 invested, approximately \$3.7 of social, economic, cultural and environmental value will be created for stakeholders.



### 2. Government outcomes only case:

The ‘Create Ranger Parks’ concept will result in a BCR ratio of 2.3:1 over the 10 year period.  
That is, for every \$1 invested, approximately \$2.3 of value will be created for Government

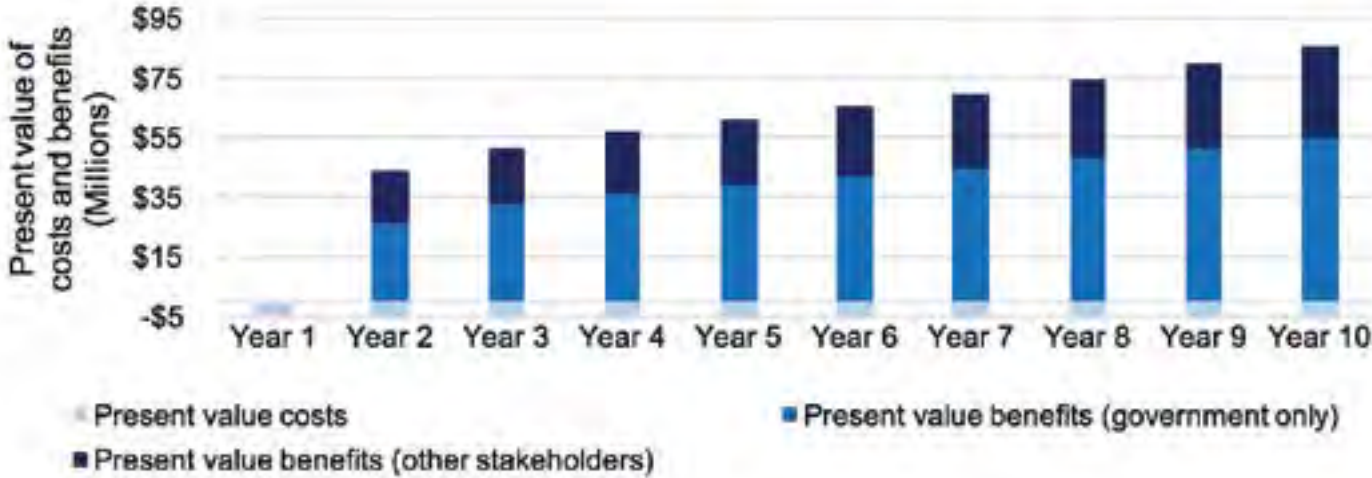
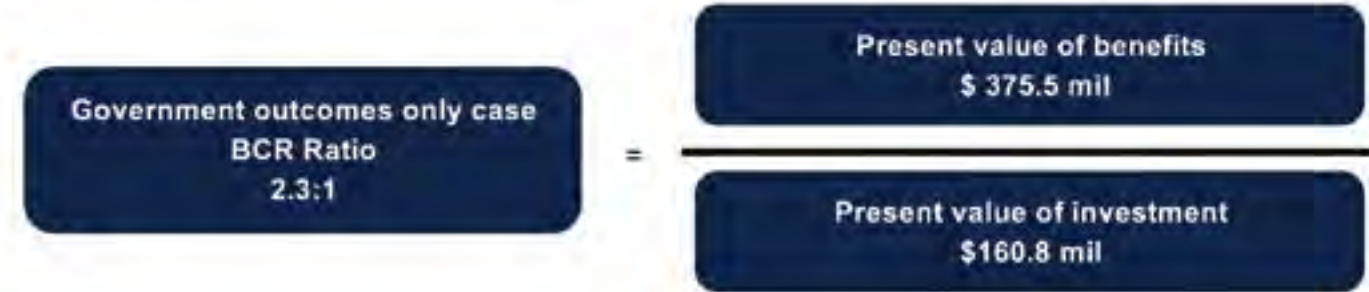


Figure 3.1: Present value of costs and benefits over 10-year period.

## 3.2 Estimated benefits

In order to identify the benefits, we reviewed benefits identified through previous evaluations and also related literature on Indigenous and other ranger programmes. We considered available data to determine which benefits could be estimated and valued and therefore included in our model. Some identified benefits could not be included because they have not been evaluated sufficiently. An investment will need to be made in the future to collect relevant data to evidence these outcomes.

The below table outlines the outcomes that have been included in the model split by the three stakeholder groups considered. We have also categorised the types of outcomes. Whilst acknowledging that the priorities of State and Federal Governments will differ, we have used the five Strategic Priorities identified by PM&C’s Indigenous Advancement Strategy (IAS) as a logical framework by which to categorise outcomes.



Government Priority Area:	Government	Rangers	Community
Jobs, Land and Economy	1.1 Rangers are skilled and trained 1.2 Reduction in income support payments 1.3 Increase in income tax 1.7 Low cost land management 1.8 Ranger program leveraged for additional funding & economic opportunities 1.9 Improved fire management	2.1 Increased skills through training and experience 2.5 Increased rangers income	3.6 Less noxious weeds 3.7 Less ferals
Children and Schooling	N/A - The provision of role models will have an indirect influence on Government as educational engagement and attainment improves. This cannot be valued at this stage and has not been included in the model. Rangers families may also benefit but this sits within community outcomes.		3.1 More role models for young people
Safety and Wellbeing	1.4 Reduced incarceration (reduced burden on corrective services) 1.5 Less crime - reduced burden on police	2.2 Increased confidence, pride and sense of self 2.3 Better health and wellbeing	3.2 Less violence and safer communities
Culture and Capability	N/A - Culture is incredibly important to Indigenous people and will also likely indirectly benefit Government and society.	2.4 Better caring for country	3.3 Better cultural asset management 3.4 Connection to country strengthened 3.5 Culture and language conserved
Remote Australia Strategies	1.6 Improved engagement with communities & partnership model promoted	N/A - Rangers and communities also benefit from improved engagement with Government but these benefits are captured within the other benefits in this model.	

Government outcomes only case

Holistic case – all outcomes, all stakeholders

Table 3.2 Benefits that have been included in this CBA showing the two separate cases that have been used to calculate the BCRs

The present value of the outcomes estimated over a 10-year period are shown below:

Government Priority Area:	Government	Rangers	Community
Jobs, Land and Economy	\$ 310,088,879	\$ 43,278,577	\$ 16,403,678
Children and Schooling	N/A	N/A	\$ 3,165,555
Safety and Wellbeing	\$ 59,825,839	\$ 71,165,849	\$ 9,405,666
Culture and Capability	N/A	\$ 51,497,678	\$ 18,214,990
Remote Australia Strategies	\$ 5,556,181	N/A	N/A
<b>Total</b>	<b>\$ 375,470,899</b>	<b>\$ 165,942,104</b>	<b>\$ 47,189,890</b>
<b>% of total value</b>	<b>64%</b>	<b>28%</b>	<b>8%</b>

Table 3.3 Estimated present value of all outcomes by stakeholder group and the five Government priorities as outlined in the Indigenous Advancement Strategy over a 10-year period

A description of each of the benefits included is provided below as well as the contribution of each benefit to the overall value generated



Government Benefits<sup>3</sup>

Outcome		Total present value for outcome (10 years)	% of total value (government only case)	% of total value (holistic case)	Explanation
Government					
1.1	Rangers are skilled and trained	\$ 9,186,810	2%	2%	Government benefits from a more skilled Ranger workforce as it improves job retention, something which has proven difficult to achieve through other employment pathways.
1.2	Reduction in income support payments	\$ 18,722,816	5%	3%	As a result of being employed, there is an associated reduction in income support payments and an increase in income tax. This is only achieved for 50% of the rangers that work permanently, not the 50% that work casually as they will earn less than the Newstart eligibility allowance and the tax-free income threshold.
1.3	Increase in income tax	\$ 5,557,667	1%	1%	
1.4	Reduced incarceration	\$ 37,893,173	10%	6%	As a result of ranger programs, communities are strengthened and people are less likely to experience crime. Ranger work gives rangers a sense of pride, an income and an added motivation to engage in a healthier lifestyle. These outcomes will result in less crime being committed in a community. This would lead to reduced WA police touchpoints and costs, alongside savings as a result of diversions from the justice system.
1.5	Less crime	\$ 21,932,666	6%	4%	

<sup>3</sup>For this analysis State and Federal Government are considered a single entity and therefore the benefits and costs have not been separated between them.

Outcome		Total present value for outcome (10 years)	% of total value (government only case)	% of total value (holistic case)	Explanation
Government					
1.6	Improved engagement with communities & partnership models promoted	\$ 5,556,181	1%	1%	This outcome deals more directly with Government's role in the properties that will be managed by ranger groups. As evidenced with the IPA's evaluated, improved engagement with communities is a short-term outcome experienced by Government as a result of Government and communities working closely together. Government investment into ranger programs is perceived favourably by many Indigenous communities and has resulted in Indigenous people becoming involved and owning a Government funded programme in ways not often observed.
1.7	Low cost land management	\$ 114,093,088	30%	19%	Land management through the proposed ranger groups is estimated to be lower cost than the alternative for the proposed properties of DPaW management of the landover the next decade – estimated in the 2014/15 DPaW annual report to be \$4.09 per hectare compared to \$2.31 for this proposal included in this analysis.
1.8	Ranger program leveraged for additional funding and economic opportunities	\$ 114,854,141	31%	20%	As evidenced through other ranger programs, they can be a useful instrument for leveraging third party investment and developing further economic opportunities which reduced the need for Government funding over time. The profile of leveraged investment has been based on our analysis of four IPAs.
1.9	Improved fire management	\$ 47,674,357	13%	8%	More burning using cultural practices refers to increased early season burning to address the critical problem of wildfires late in the dry season. Fire management is carried out using the knowledge and expertise of traditional owners, with the resources of the rangers. This outcome will lead to greater variation in vegetation growth, less dangerous late season fires and, ultimately, less greenhouse gas emissions and healthier country. We have included this as a Government outcome but all stakeholders will benefit.

Table 3.4 – Benefits for Government – total 10-year value, overall contribution and outcome explanation



Ranger Benefits

Outcome		Total present value for outcome (10 years)	% of total value (ranger benefits only)	% of total value (holistic case)	Explanation
2.1	Increased skills through training and experience	\$ 1,212,362	2%	1%	One of the most immediate changes for rangers working on country is the increase in their technical skills. Technical skills encompass Traditional Ecological Knowledge (TEK) and Western scientific knowledge, which together form a 'two-toolbox approach'. This is the preferred method amongst existing ranger groups to undertake land management on country. TEK is gained through learning from older people in the community. Western scientific knowledge is learnt through undertaking TAFE courses in subjects such as conservation and land management and fire management.
2.2	Increased confidence, pride and sense of self	\$ 36,613,524	22%	6%	This outcome is likely to be achieved over a longer time period and is directly related to time spent on country learning new skills, engaging with older people and connecting to culture and landscape. Increased pride and sense of self results from increased connection within and between families, and connection (or reconnection) to culture. Rangers interviewed in previous evaluations described this outcome as linked to the development of their cultural identity, which made them understand themselves, their culture and their place in the world better. For those who transfer knowledge onto the younger generations, pride comes from helping others to connect with their culture.
2.3	Better health and wellbeing (mental and physical health and reduced substance use / alcohol and reduced suicide)	\$ 34,552,325	21%	6%	Better health and wellbeing is an outcome from working on country experienced by many existing rangers. Achievement of this outcome is far broader than physical and mental benefits, and is inextricably linked to their relationship with land, culture and spirituality. It relates to clean air, healthy lifestyles, exercise, purchase of healthy food and, most importantly, connection to the land. This is compared to what many rangers would be likely doing if they were not working on country – sitting around, drinking or experiencing violence. In contrast, their experiences on country will likely lead to this outcome and ultimately, a deep sense of happiness and contentment.
2.4	Better caring for country	\$ 51,497,678	31%	8%	Better caring for country is closely linked with 'increased pride and sense of self'. It is a short to medium term outcome that results from older and younger people working together, an increased respect for cultural knowledge and the transfer of knowledge among Rangers. It is a direct result of Ranger work on country. For many years Indigenous people have not lived on country in some of these regions which has resulted in damage by wildfires, feral animals and weeds. The return of traditional owners to live and work on country, demonstrated by some of the IPAs evaluated, has a transformative effect on the health of country.
2.5	Increased Ranger income	\$ 40,065,195	24%	7%	Rangers increase their income through their ranger work and are consequently better able to provide for their families and take control of their lives.

Table 3.5 – Benefits for rangers – total 10-year value, overall contribution and outcome explanation

Community Benefits

Community members represent Indigenous people, who are involved with the properties that make up the five million hectares and proposed Indigenous ranger programmes. Community members are likely to live nearby in towns such as Geraldton, Carnarvon, Meekatharra, Cue and Denham.

Outcome		Total present value for outcome (10 years)	% of total value (community benefits only)	% of total value (holistic case)	Explanation
Community					
3.1	More role models for young people	\$ 3,165,555	4%	1%	As a direct result of Rangers working on country, community members benefit because role models are created for young people to look up to. Community members in previous evaluations have emphasised the lack of role models prior to ranger programmes – many of those community members were unemployed and many experienced problems with drinking and substance abuse, violence and boredom. With no resources to look after country young people cannot observe and learn from elders about fulfilling their cultural obligations. Following commencement of ranger programmes, young people have been able to see rangers applying their skills to caring for country, living in a dry community and, in some cases, avoiding violent behaviour.
3.2	Less violence and safer communities	\$ 9,405,060	13%	2%	Related to 'more role models for young people', as a result of ranger programmes there is less violence in communities. Family and domestic violence is strongly linked to substance abuse and as a result of spending more time on country and less time in town, community members experience less domestic violence.
3.3	Better cultural asset management	\$ 3,058,284	4%	0%	The three outcomes are closely linked, and to the ranger outcome 'better caring for country'. Better cultural asset management results from access to country, fire and feral animal management. Ranger programs will facilitate better access to country for community members to look after country. The remote location of the properties means that, without the resources embedded within the ranger programmes, community members would not easily be able to go onto country and look after cultural sites. Other ranger groups undertake preventative fire management on land surrounding cultural sites including rock art sites to ensure fires do not damage them, and cull feral animals such as camels to reduce the damage they cause to rock art. As a result of rangers carrying out this and other land management work, community members experience strengthened connection to country by being able to visit country more regularly and passing on their knowledge.
3.4	Connection to country strengthened	\$ 14,066,795	19%	2%	
3.5	Culture and language conserved	\$ 27,247,772	37%	4%	
3.6	Less noxious weeds	\$ 3,700,069	5%	1%	Less noxious weeds and less ferals lead to cleaner waterholes and biodiversity regeneration. The aspiration is that through better management of weeds and ferals, there will ultimately be more native mammals on country. This work ultimately leads to healthier country and healthier people.
3.7	Less ferals	\$ 12,700,009	17%	2%	

Table 3.6 – Benefits for community – total 10 year value, overall contribution and outcome explanation



### 3.3 Required investment

The cost of setting up and running the ranger programs were estimated by Rob Thomas, of In Common Consulting based initially on one million hectares and then scaled up to consider 5 million hectares. Rob has been the General Manager, Land and Community at Central Desert Native Title Services (CDNTS) since 2009 and previously was the Executive Director for Land and Heritage at the WA Department of Indigenous Affairs. Rob has over 20 years of experience in land management and the cost estimates are based on his experience designing and running indigenous ranger programs in the rangelands of WA. While he does not have the specific local knowledge of the properties that make up the five million hectares included in this analysis, his experience with designing and implementing programs against a similar socio-economic context within the southern rangelands (e.g.: Wiluna Region) provides a sound basis for the estimates. SVA has also sense checked these costs with our previous evaluations, research on the overall investment into IPAs and also through discussions with the Kimberley Land Council on the minimum required investment for ranger teams.

In the first year of the model we have assumed that twenty-five Indigenous Land Use Agreements (ILUA's) will be negotiated. This is estimated to cost between \$150,000 and \$250,000 per ILUA and so an average cost per ILUA of \$200,000 has been used.

Following negotiation of the ILUA's in year one, further costs will start to be invested to establish ranger programs and associated benefits will be realised.

The average annual and total costs across the five million hectares are shown below:

Program Costs (Year 1 - 10)	Average cost per annum	Total costs over 10 years	Comments
One off costs			
ILUA negotiations (25 language groups)	\$ 500,000	\$ 5,000,000	Assume 25 ILUA negotiations (one for each language group) at \$200k per negotiation. All costs in year 1 of the model
Ongoing costs			
Program Evaluation	\$ 450,000	\$ 4,500,000	Assume \$500,000 per annum for an evaluator to work across all 25 ranger groups
Planning	\$ 529,167	\$ 5,291,667	Estimate includes facilitator, planning meetings, consultation with stakeholders, demonstration activities, exchanges with other group and travel costs. Occurs over the first 3 years as ranger groups build community governance and re-engage with properties
Governance	\$ 675,000	\$ 6,750,000	Ongoing support for community/stakeholder/partner engagement and decision making forums
Operations - Ranger contract	\$ 3,937,500	\$ 39,375,000	Includes a ranger team (a coordinator and 4 ranges/team) and a vehicle for each of the 25 ranger groups
Operations - Other contracts	\$ 1,968,750	\$ 19,687,500	For neighbours and other preferred providers (grading etc)
Operations - Materials (fencing etc.)	\$ 975,000	\$ 9,750,000	
Training	\$ 262,500	\$ 2,625,000	On the job training by RTO to Cert III (occurs in first 3 years)
Management support (including resourcing to build economic and partnership/funding opportunities)	\$ 2,250,000	\$ 22,500,000	This is ~20% of overall costs and is for a central management team per five ranger groups that manages the groups and works to leverage further funding economic opportunities
Total Costs	\$ 11,547,917	\$ 115,479,167	
The average cost per hectare per year including ILUA negotiations:	\$ 2.31		

Table 3.7 – Estimated investment required for the ‘Create Ranger Parks’ concept



### 3.4 Sensitivity analysis

A series of sensitivity analyses were completed to identify the impact of changes to key assumptions. The outcomes for the sensitivity analyses completed for this analysis are included in the table below.

**Sensitivity 1: The unique number of rangers (permanent and casual) working as part of the ranger program**

	Variable	Government outcomes only BCR	Holistic case BCR
Baseline judgement	212.4	2.33 : 1	3.66 : 1
Low case	169.9	2.18 : 1	3.27 : 1
High case	254.9	2.51 : 1	4.07 : 1

Many outcomes relate to the number of rangers working hence the analysis is sensitive to changes in this assumption. The holistic case BCR increases by 11% for a 20% increase in the number of rangers. This is small because costs also increase as the number of rangers do (but not by as much as the holistic benefits).

**Sensitivity 2: Real discount rate**

	Variable	Government outcomes only BCR	Holistic case BCR
Baseline judgement	7%	2.33 : 1	3.66 : 1
Low case	3%	2.30 : 1	3.61 : 1
High case	10%	2.36 : 1	3.69 : 1

This sensitivity has been included as per the guidance provided by the DPM&C Office of Best Practice Regulation (OBPR)<sup>4</sup> . Variation in real discount rates has a relatively small impact on BCRs.

<sup>4</sup> <https://www.dpmc.gov.au/office-best-practice-regulation/publication/cost-benefit-analysis-guidance-note>

**Sensitivity 3. Lower incarceration (reduced burden on the justice system) – percentage of all rangers who are diverted from a prison sentence per year**

	Variable	Government outcomes only BCR	Holistic case BCR
Baseline judgement	2%	2.33 : 1	3.66 : 1
Low case	1%	2.16 : 1	3.48 : 1
High case	3%	2.63 : 1	3.95 : 1

It is difficult to estimate the number of rangers that will avoid a sentence as a result of the program, however meaningful employment has been proven to be a successful diversion method. Given that we have been conservative with this estimate, the BCR is not sensitive to changes. Increasing the percentage from 2% (2 ranger per year) to 3% (3 rangers per year) increases the holistic BCR by 8%.

**Sensitivity 4. Less crime – percentage of ranger days on country that would otherwise have ended in a crime requiring a police touchpoint**

	Variable	Government outcomes only BCR	Holistic case BCR
Baseline judgement	5%	2.33 : 1	3.66 : 1
Low case	3%	2.28 : 1	3.61 : 1
High case	7%	2.39 : 1	3.71 : 1

Other analyses of Indigenous land management programs have shown that by having rangers working on country can lead to reduced crimes (both for the rangers themselves and other community members who see rangers as role models). The sensitivity analysis shows that the overall BCR is not very sensitive to variations in this assumption. \*More info about this analysis can be found in the methodological statement.



“

*It doesn't matter whether you're  
black, white, young, old, man,  
woman, wherever you're from.  
It's about connecting people and  
reconnecting people to country.*

*- Darren Capewell, Malgana Traditional  
Owner and tourism operator.*

”



Glenn Campbell



