

Kimberley Science and Conservation Strategy



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May 2011





Foreword

Western Australia's vast Kimberley region is renowned for its natural beauty and enormous cultural significance. Awareness of its economic, cultural and biological values is rapidly increasing across Australia and around the world. It is a region filled with beauty and mystique, containing unique terrestrial and marine ecosystems, set in wild, rugged and remote landscapes.

Central to the Kimberley's past, present and future is a rich and living Aboriginal culture. Aboriginal people retain strong links to and responsibility for country, and they have a key role in protecting the Kimberley's cultural and natural heritage. Archaeological sites in the Kimberley are amongst the oldest in Australia and offer unparalleled opportunities to contribute to the history of Australia and to world human history. The region has the greatest diversity of rock art in Australia.

The Kimberley landscape is reflected in art, literature, poetry, music, film and in ancient and continuing Aboriginal songlines and culture. It is a special place for many people, locally, in Western Australia, in Australia and across the globe.

The Kimberley is at a critical point, with increasing recognition of its development potential, including development of rich offshore petroleum resources, the expansion of the Ord Irrigation Scheme, an expanding

international profile and increasing visitor numbers as well as a growing population. A strategy that recognises this growth, and sets a path to conserve the region's natural and cultural values, is vital.

The State Government has met this challenge by developing a comprehensive Kimberley Science and Conservation Strategy and committing an initial \$63 million over the five years to 2015 to implement it. Ongoing funding will be provided for key initiatives, including marine park management and landscape-scale fire, feral animal and weed control. This is a major investment in conserving the region's unique values and providing new opportunities for Aboriginal employment and for nature-based tourism. This funding is also expected to create significant opportunities to leverage cash and in-kind funding from a wide array of sources, including the Commonwealth Government and major Kimberley resource development ventures.

The strategy is founded on the major themes raised through an extensive community consultation process, which was chaired and reported on by an independent facilitator, the Hon Chris Ellison. The centrepiece of the Government's Kimberley strategy is the creation of the Kimberley Wilderness Parks, one of the most significant environmental initiatives in Western Australia's history. The Kimberley Wilderness Parks will include the State's largest



Roebuck Bay
Photo – David Bettini

interconnected system of marine and terrestrial parks covering more than 3.5 million hectares.

Partnerships with local land managers, including traditional owners, pastoralists and conservation groups, are also central to this initiative. These partnerships will deliver improved on-ground management of the key threats to the region's biodiversity across different land tenures, including parks, Aboriginal lands and pastoral leases. The State Government has committed \$21.5 million to these partnerships to 2015.

The strategy recognises that the Kimberley has the potential to become one of the world's greatest wilderness ecotourism destinations – a place where extraordinary natural and cultural values can be experienced with confidence that they are fully protected. Under the Kimberley Science and Conservation Strategy, the State

Government will invest an initial \$9.6 million in nature-based tourism in the region.

The Government is determined to see positive changes on the ground and has already begun implementing many of the new initiatives set out in this strategy. This includes working to establish new marine parks, creating Prince Regent National Park from the former nature reserve, exploring partnerships with traditional owners and other land managers, delivering the landscape conservation initiative and planning for new visitor facilities.

The strategy is a bold commitment by the State Government to recognise and conserve one of the world's last great wilderness areas. It provides a vision for conservation in the region which involves roles for many partners in the community, industry and in government and non-government organisations. We invite you to play your part.



Hon Colin Barnett MLA
Premier; Minister for State Development



Hon Bill Marmion MLA
Minister for Environment; Water



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Star finches (*Neochmia ruficauda*)
Photo – David Bettini



Key outcomes

The State Government is committed to ensuring the Kimberley's natural and cultural values are protected as the region fulfils its economic potential. This will be achieved under the framework provided by the Kimberley Science and Conservation Strategy through an initial investment of \$63 million over five years.

The top five outcomes that will be delivered are:

1 Kimberley Wilderness Parks

The Kimberley Wilderness Parks will establish the State's largest interconnected system of marine and terrestrial parks covering more than 3.5 million hectares, including:

- *Four new marine parks* at Camden Sound, North Kimberley, Roebuck Bay and Eighty Mile Beach, with \$15.2 million allocated to managing Camden Sound and Eighty Mile Beach over the next four years and significant further funding for the other two parks to be allocated. These new, multiple-use marine parks will almost treble the area of marine parks and reserves in Western Australia, from about 1.5 million hectares to 4.1 million hectares.
- *New terrestrial reserves* for Kimberley islands with the highest conservation significance, and the new Prince Regent National Park, one of only two world biosphere reserves in Western Australia. Prince Regent has been converted from a nature reserve to give it the security

of tenure of a class A national park and promote better management of nature-based tourism in the area.

- *A Conservation Reserve Corridor* linking the upgraded Prince Regent National Park with Drysdale River National Park. This will be achieved through voluntary partnerships and joint management with traditional owners and pastoralists and will significantly increase activities to reduce threats to biodiversity in the area.

Further linkages to connect existing parks and reserves will also be progressed as the strategy is implemented.

2 A new landscape approach to conservation to manage fire, introduced animals and weeds

The internationally significant north Kimberley will be protected and maintained through collaborative action with land managers at a landscape scale to manage fire and to address the threats posed by introduced animals and weeds, which extend across property boundaries. Initial funding of \$21.5 million over five years has already been allocated to DEC to deliver these on-ground actions and, recognising the sustained investment required to effectively manage and reduce key threats, ongoing funding of \$5.5 million/year will be provided from 2015–16.

3 Training and employment for Aboriginal rangers

The landscape-scale conservation initiative and new marine parks will create significant opportunities to train and employ Aboriginal rangers in managing their



Humpback (*Megaptera novaeangliae*) cow and calf breach, Lombadina
Photo – Kimberley Media

traditional land and sea country. This will build on ranger programs currently run by the Kimberley Land Council and others.

4 Investing in knowledge and making information accessible

A new \$14.2 million marine science program over six years, including the Integrated Marine Observing System, will be undertaken in the Kimberley to improve management and help protect the Kimberley's marine ecosystems and wildlife, both inside and outside the new marine parks. It is anticipated that this funding will leverage further major investment from research institutions, universities, resource companies and the Commonwealth Government.

An online knowledge portal will provide ready access to existing scientific and cultural information on the Kimberley and further research into Kimberley rock art will be supported.

5 A major boost to nature-based tourism

An investment of an initial \$9.6 million over four years will upgrade and expand visitor facilities at popular sites across the Kimberley. This will include developing and promoting tourism corridors, as well as four-wheel-drive trails using existing roads and tracks and an aerial tourism highway linking some of the region's major attractions. Assistance will also be provided to Aboriginal communities to develop nature-based and cultural tourism services.



Prince Regent National Park
Photo – Tourism WA



Miriuwung-Gajerrong rangers
Photo – Scott Goodson/DEC



Introduction

The strategy

The State Government recognises the unique and significant natural and cultural values of the Kimberley region and will ensure these values are protected as the region fulfils its economic potential.

This strategy delivers a coordinated suite of large-scale practical initiatives to conserve the unique and spectacular character of the Kimberley, to create training and employment opportunities for Aboriginal people, and to promote social and economic development in the region. It delivers a key election commitment of the State Government.

State Government agencies, Aboriginal groups, pastoralists, non-government organisations and individuals are all involved in the conservation of the Kimberley.

The Department of Environment and Conservation (DEC) is responsible for managing national parks, marine parks and other conservation reserves. It is also responsible for protecting native species across the entire landscape, and for fire preparedness as well as pest animal and weed control on unallocated Crown land and unmanaged reserves. The departments of Water, Fisheries, Planning, the Western Australian Museum and others also contribute to natural resource management and conservation efforts in the Kimberley. The Department of the Premier and Cabinet is responsible for coordinating implementation of the strategy across government.

These groups carry out their responsibilities both separately and collaboratively – the broadscale fire management program, Ecofire, for example, was conducted jointly by the Australian Wildlife Conservancy, DEC, Fire and Emergency Services Authority, Kimberley Land Council,



Short-eared rock wallabies (*Petrogale brachyotis*)
Photo – David Bettini

Department of Agriculture and Food, and the Pastoralists and Graziers Association. This strategy does not replace existing legislative responsibilities or the activities of a range of stakeholders, but assists in integrating them.

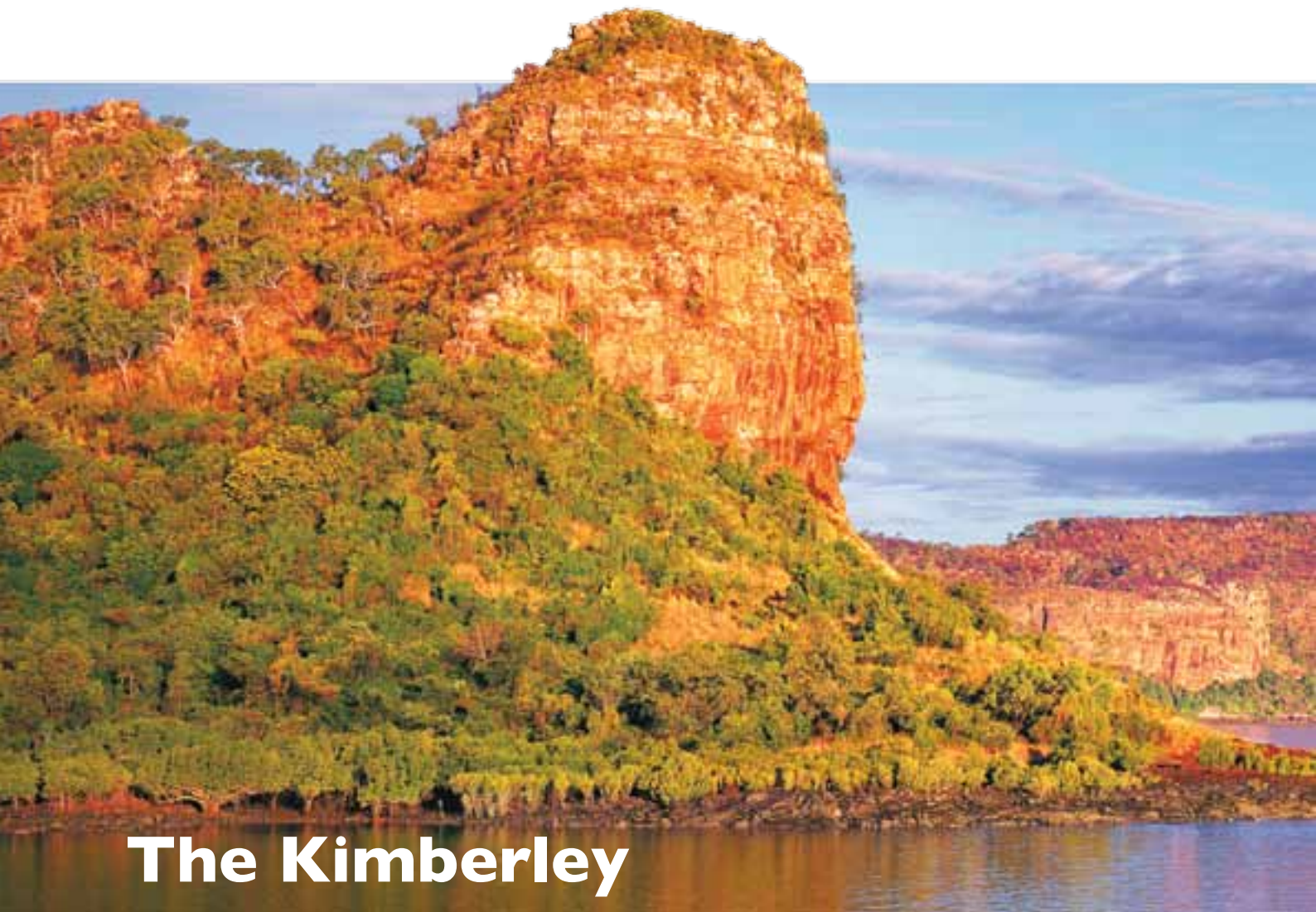
Maintaining the values of the Kimberley will require foresight and a long-term approach. The strategy responds to the key conservation opportunities and challenges facing the region. It also reflects the major themes raised by the community during the consultation process in 2009 and documented in the report *Foundations for a Kimberley Strategy* by the Hon Chris Ellison. The report *Protecting the Kimberley, a synthesis of scientific knowledge to support conservation management in the Kimberley region of Western Australia* (2009) provides information on the conservation values of the region and a context for this strategy.

Scope

This strategy will be implemented across the Kimberley region, comprised of the four local government areas of Broome, Derby-West Kimberley, Wyndham-East Kimberley and Halls Creek.

This strategy recognises and complements important conservation programs already being undertaken in the Kimberley by a range of State Government agencies, Aboriginal communities, community groups, pastoralists, local governments, and non-government and commercial organisations. It will significantly build on this existing work.

This strategy identifies priority actions for the next two years as well as actions that will be progressed over the next decade and into the longer term.



The Kimberley

The region

The Kimberley covers a land area of 424,500 square kilometres—almost twice the size of the state of Victoria—extending from the high rainfall tropics to semi-arid deserts. Average rainfall ranges from 1,500 millimetres in the north-west coastal areas to less than 350 millimetres on the southern perimeter.

The resident population, which is expected to double by 2031, numbers around 34,000, of whom nearly half are Aboriginal. Aboriginal people have inhabited the region for at least 50,000 years and with other Indigenous Australians have the oldest continuing cultures in human history. Twenty-two Aboriginal language groups are found in the Kimberley today.

Tourism, mining, pearling, horticulture, oil, gas, agriculture and fishing generate more than \$1.5 billion a year in a regional economy that is growing rapidly.

The Kimberley is prospective for minerals and oil and gas, and has potential for geothermal energy developments. Five mines and one oilfield currently operate in the

Kimberley, producing nickel, cobalt, zinc, lead, iron ore, oil and diamonds, with a total value of more than \$800 million in 2009–10. There are also a number of live and pending exploration licences, mining leases and petroleum tenements in the region.

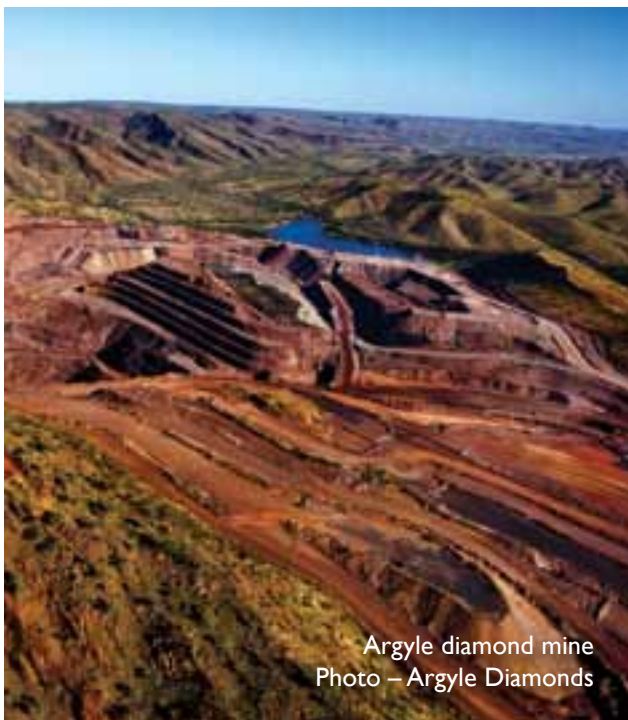
The Browse Basin, north of Broome, is one of Australia's richest hydrocarbon basins. Total known gas reserves in the region are estimated at 60 trillion cubic feet, and could increase subject to further exploration, making the area comparable to the North West Shelf in terms of prospectivity.

Pastoral and other leases cover about half of the Kimberley, producing beef and horticultural products. A current (conservative) 515 gigalitre allocation of water from Lake Argyle (10,700 gigalitres) is available to expand the Ord Irrigation Scheme from its current 15,000 hectares to at least 65,000 hectares.

About five per cent of the region is in national parks and conservation reserves which collectively attract around 300,000 visitors each year; 25 per cent is unallocated Crown land and 12 per cent is in Aboriginal reserves.



Hunter River
Photo – David Bettini



Argyle diamond mine
Photo – Argyle Diamonds



Broome pearls
Photo – Tourism WA



Cattle muster
Photo – Tourism WA



Mudflats, west of Wyndham
Photo – Ed Hatherley/DEC



Notaden weigeli
Photo – Lesley Gibson/DEC

Conservation values

The Kimberley is a tropical savanna punctuated by gorges, flat topped mesas, swamps, rainforests and, to the south, desert sand dunes. This varied terrain has evolved over 250 million years and supports its own distinctive flora and fauna compared to the rest of the State. To date, scientists have identified 76 species of native mammal, 295 bird species, 178 reptile species, 42 named frog species and more than 2,000 plant species.

The broad continental shelf off the Kimberley coast supports coral reefs, banks, shoals and more than 2,500 near-shore islands. Twenty of these islands exceed 1,000 hectares in area: Augustus, the largest, is 18,990 hectares. The straight line distance between Yampi Sound and the King Edward River is close to 400 kilometres, but there are more than 12,800 kilometres of coastline between these two points.

The Kimberley islands support plants and animals that are found nowhere else and are refuges for native species that have disappeared from or are threatened on the mainland by fire, introduced animals and weed invasion. A major biological survey of Kimberley islands conducted by DEC, with support from the Western Australian and Australian Museums and traditional owners, has confirmed that almost all are free of introduced animals and weeds, and that they are less subjected to fire than the mainland.

Most of the Kimberley's marine environment is internationally recognised as being in very good ecological

condition and is included in the less than four per cent of the world's marine environment rated as having had very low impact from humans. The remoteness of the region and the previously limited research opportunities in the area mean there is still much to learn about species and habitats in the Kimberley's marine environment to inform management.

The region's fringing coral reefs are more extensive and diverse than those of Ningaloo Marine Park and are still being discovered by scientists. Montgomery Reef, between Camden Sound and Collier Bay, emerges out of the ocean in spectacular fashion at low tide and is a biologically diverse coral reef covering some 300 square kilometres. The very large tidal range experienced in the Kimberley has produced extensive tidal flats associated with the mouths of numerous rivers and natural tourism icons such as the Horizontal Waterfalls in the Buccaneer Archipelago.

The north Kimberley, which includes the Prince Regent River, Drysdale River and Mitchell Plateau is one of few relatively untouched large wild areas left in the world. This area lies in the tropical high rainfall zone and has been listed as a National Biodiversity Hotspot, with at least 230 plant, 16 freshwater fish, 10 frog, 31 reptile, two bird and six mammal species found nowhere else. The north Kimberley is one of only two places on mainland Australia where all of the native mammal species present at the time of European settlement still occur. Unlike elsewhere, there have been no recorded mammal extinctions from this area. Much of this area is characterised by layers of ancient volcanic and



Horizontal Waterfalls, Buccaneer Archipelago
Photo – David Bettini



Parry Lagoons
Photo – David Bettini



Golden-backed tree-rat (*Mesembriomys macrurus*)
Photo – Norm McKenzie/DEC



Nygumpan Cliff
Photo – David Bettini

sedimentary rocks, with the resistant sandstone forming ranges. Slopes and plains are generally covered in open woodlands. There are also mangrove swamps and rich river and creek vegetation.

The Dampierland bioregion in the west Kimberley is a north-western extension of the Great Sandy Desert in a higher rainfall zone. It includes Broome, the Dampier Peninsula and the Fitzroy River floodplain. On the Dampier Peninsula, large sandy plains support pindan scrub dominated by wattles and extensive sand dune vegetation, and mangroves dominate the bays. The Napier and Oscar ranges follow the northern edge of the Fitzroy River floodplain. They are remnants of a 380-million-year-old limestone barrier reef from the Devonian period, and contain the oldest cave system in Western Australia. Devonian limestone concretions eroding out of rocks near Windjana Gorge National Park contain the best preserved fossil fish of this age found anywhere in the world. As a result of their extraordinary scientific significance these fossils, commonly referred to as the Gogo fish, are frequently featured in the most prestigious international scientific journals.

The east Kimberley, including the Bungle Bungle Range in the World Heritage-listed Purnululu National Park, lies within the transition zone between the desert and monsoonal north Kimberley, and contains elements of desert flora and fauna, as well as several rare or restricted species, some of which are found nowhere else.

Patches of rainforest are found around the Kimberley savanna, about 1,500 rainforests in total, averaging just three hectares in area. These patches support nearly a quarter of all plant species found in the Kimberley and nearly half of the region's terrestrial bird species. Migratory birds, including koels and channel-billed cuckoos, rely on the rainforests and other species with restricted ranges, such as land snails, occur nowhere else.

There are five wetlands of international significance listed under the Ramsar Convention in the Kimberley: Roebuck Bay, Eighty Mile Beach, Mandora Wetlands (which have the farthest inland mangrove community in Australia), Parry Lagoons Nature Reserve and the man-made and now bird-rich wetlands of Lakes Argyle and Kununurra. A further 18 wetlands are listed as nationally significant.

A number of threatened ecological communities occur in the Kimberley, including rainforest, herbfields and mound spring communities with permanently wet peaty habitat, such as Dragon Tree Soak, Bunda Bunda, Big Springs, Black Spring and the Mandora Mounds.

Thirty-three of the 48 rivers in Western Australia undisturbed by the impacts of modern technology are located in the Kimberley. These rivers contain a significant number of high conservation value aquatic ecosystems. The region has the most diverse freshwater fish fauna in the State, with more than 50 recorded species including 16 species found nowhere else. There are no introduced fish species in any of the Kimberley's major catchments.



Weed control by Uunguu ranger
Photo – John Haywood/DEC



Cane toad management
Photo – DEC

Conservation challenges

While the Kimberley's natural environment is still in relatively good condition, it faces significant and immediate threats. The region has experienced a general deterioration in its terrestrial environmental condition, mainly due to inappropriate fire regimes and grazing by introduced animals. This is resulting in soil and vegetation degradation, weed infestations and marked declines in native mammal populations. In the Dampierland bioregion, for example, 45 per cent of native mammal species (excluding bats) have either disappeared altogether or contracted to half of their former ranges. In the desert areas, feral camels and introduced predators such as feral cats are damaging vegetation and threatening native animals.

Fire has an important role to play in maintaining many terrestrial ecosystems in the Kimberley, but inappropriate fire regimes are stripping soil profiles across the landscape and simplifying plant composition and diversity. The traditional mosaic of small, patchy fires lit by Aboriginal people for hunting and other purposes has been replaced by very large bushfires, many of them occurring late in the dry season when they cause the most damage. On average,

half of the Kimberley burns every year. The intensity and frequency of fires have caused loss of vegetation structure and composition, soil erosion and decline in fauna populations. Bushfires also result in losses to industry, especially pastoralism, and can have negative impacts on cultural values of Indigenous communities.

Weeds have been introduced to natural ecosystems and out-compete native plants. Once established, they can be extremely difficult to manage.

Unmanaged cattle, feral pigs, horses, donkeys and camels damage vegetation, spread weeds and can exacerbate soil erosion. Feral cats prey on native fauna. Cane toads have crossed into Western Australia from the Northern Territory and will continue to spread west, despite the significant efforts of both community groups and Government to contain their expansion.

Changes in climate will also affect the region. Significant changes in average rainfall, temperatures and frequency and intensity of extreme weather events are projected to occur over the next few decades. Their extent and interactions with other processes are unknown.



Prescribed burning, Silent Grove
Photo – Ed Hatherley/DEC

Indigenous culture

The Kimberley has most of the oldest archaeological sites known in Australia. The oldest human artefact known in Australia is from the Lake Gregory (Mulan) region, which has been dated at 50,000 years. Beads and knotted string up to 40,000 years old have been found in the limestone of the Oscar and Napier ranges, while rock shelters dated to 39,700 years old contain some of the earliest prehistoric art sites ever recorded.

The Kimberley region has the greatest diversity of rock art in Australia. Paintings include ancient hand stencils, intricately painted and highly decorative Gwion Gwion figures, animals portrayed in a huge range of types and styles and the powerful stylised Wandjina art. A completely new form of rock art has recently been discovered on the upper Canning Stock Route.

Kimberley rock art is a cultural treasure of international significance and scale. The combination of extreme antiquity and sophistication demonstrated by Gwion Gwion art is seen nowhere else in the world. Dating back at least 20,000 and perhaps more than 35,000 years, this style is displayed in sandstone galleries abundant throughout the north Kimberley.

Some Indigenous occupation sites in the Kimberley contain biological material that allows scientists to examine climatic changes over time and the effects

of these changes on human activities. Beads found at Kimberley sites up to 500 kilometres inland are some of the earliest examples of personal adornment and also some of the earliest evidence for long distance exchange by modern humans anywhere in the world.

Today, there are 22 Aboriginal language groups across the Kimberley, a reflection of the region's diverse and living Aboriginal culture. Aboriginal people have inhabited the region for at least 50,000 years and for up to 60,000 years, and with other Indigenous Australians have the oldest continuing cultures in human history. The region has an exceptionally high Indigenous population, with 47.7 per cent of Kimberley residents being of Aboriginal descent in 2006, compared to around 3.5 per cent in Western Australia.

Songlines, Dreaming sites and quarries for tools are among the many thousands of Aboriginal art sites and places of cultural importance throughout the Kimberley. Traditional owners maintain a relationship to land in accordance with traditional laws and customs. Traditional owners in the north Kimberley, for example, released the *North Kimberley Saltwater Country Plan* in 2010, setting out a 10-year plan to protect and enhance the area. Immense traditional ecological knowledge has been handed down from generation to generation and this can be used in conjunction with modern science to inform land management practices and decisions.



Insets: Artist Alison Burgu, Mowanjum Art and Culture Centre, Derby Photo – Tourism WA
Gwion Gwion rock paintings, Oomarri, east Kimberley Photo – courtesy Ambrose Mungala Chalarimeri



Wandjina rock art, west Kimberley
Photo – Tourism WA

A world-class marine environment

The complexity and diversity of the Kimberley marine environment means there are eight major marine bioregions, more than in any other part of Western Australia. Six marine bioregions are coastal (Eighty Mile Beach, Canning, King Sound, Kimberley, Bonaparte and Cambridge Bonaparte) and two are offshore (North West Shelf and Oceanic Shoals). Only the Oceanic Shoals bioregion is currently represented in a marine park, although this is set to change as a result of this strategy.

Rowley Shoals Marine Park, one of the outstanding and least disturbed marine parks in the world, has an impressive array of marine tropical wildlife unsurpassed in Western Australia in terms of diversity or spectacle. Lying some 260 kilometres offshore from Broome, these coral atolls offer some of Australia's best diving experiences.

The north Kimberley has a complex coastline with many gulfs, headlands, cliff-lined shores and archipelagos. Extensive tidal flats have formed in places, some associated with the mouths of the numerous rivers that drain to the coast here. Together, these environments support a great range of habitats and marine life.

Camden Sound Marine Park, south of the Bonaparte Archipelago, will protect the largest humpback whale nursery in the southern hemisphere, with more than 1,000 humpbacks using the sound each year to breed, calve and nurse their young. The Kimberley also has

important populations of manta rays, dugongs and all six species of threatened marine turtle found in Australia.

The Kimberley's fringing coral reefs may be more extensive and diverse than those of Ningaloo Marine Park, but scientists are only just discovering them. Montgomery Reef, in Camden Sound Marine Park, is a particularly outstanding, biologically diverse coral reef covering around 300 square kilometres.

The Kimberley contains two of only a dozen areas in the world with huge intertidal flats rich in shorebirds. The proposed Roebuck Bay and Eighty Mile Beach marine parks are summer refuges to hundreds of thousands of internationally protected migratory waders that fly from as far afield as Siberia. Roebuck Bay and Eighty Mile Beach are at the receiving end of the world's most species-rich shorebird flyways. Roebuck Bay also lays claim to having the largest known population of snubfin dolphins, a recently discovered species found only in Australia.

Some of the largest mangrove patches in Australia, considered among the most pristine mangrove forests in the world, fringe the Kimberley coast, with a total area of 140,000 hectares. Stands comprise up to 18 tree species and their fauna is rich and distinctive.

Aboriginal people have a connection with Kimberley waters that dates back tens of thousands of years. There are hundreds of archaeologically significant marine sites (such as shell middens and fish traps) and the ocean remains significant in oral traditions and spiritual activities.

Coral and reef fish, Rowley Shoals Marine Park
Photo – Suzanne Long/DEC



Insets: Green turtle (*Chelonia mydas*) Photo – Suzanne Long/DEC
Humpback whale Photo – Leighton De Barros



Weathered sandstone, Edeline Island, Buccaneer Archipelago
Photo – David Bettini

Significance of the Kimberley islands

There are more than 2,500 islands off the Kimberley coast, spectacularly beautiful places with plunging sea cliffs, tropical vegetation and secluded beaches. Most importantly, these islands are reservoirs of wildlife and ecological communities, many of which have disappeared or are under threat on similar areas on the mainland. This is because the islands have mostly been spared from disturbances such as feral cats, cattle and inappropriate fire regimes. Unlike other parts of Western Australia, at present few islands in the Kimberley are reserved for conservation.

Four islands about 150 kilometres north of Broome form Lacepede Islands Nature Reserve. The reserve protects the world's largest colonies of brown boobies, the largest colonies of lesser frigatebirds in the Indian Ocean and major turtle rookeries, especially of threatened green turtles. The scenic and biodiverse Buccaneer Archipelago is composed of rugged sandstone islands, with 150-metre-high sea cliffs and headlands separating inlets and bays. The archipelago's Horizontal Falls draw many tourists on cruises and scenic flights to one of the tourism icons of the Kimberley. The Montgomery Islands in Collier Bay are fringed by mangroves and coral reefs, while the adjacent High Cliffy Islands contain rainforest vine thicket communities and Precambrian stromatolites known as Conophyton.

Many inshore islands between Camden Sound and Cape Voltaire make up the Bonaparte Archipelago. The archipelago has a particularly rich mammal fauna including scaly-tailed possums, golden-backed tree-rats and threatened golden bandicoots, with rainforest and mangrove patches on some islands. The Admiralty Gulf Islands consist of four island groups, many of which contain rainforests and mangrove patches. Low Rocks is a nature reserve and Cassini Island is an important green turtle rookery. Middle Osborn Island was originally a volcanic plug.





















A terrestrial biological survey by DEC, the Kimberley Land Council and WA Museum on 22 of the largest north-west Kimberley islands discovered the agile wallaby, red-cheeked dunnart and western chestnut mouse on some islands. The survey more than doubled the number of vertebrate animal and plant species known to occur on the islands, and discovered new populations of many important species. Thirty-eight of the Kimberley's 76 mammal species were found on these islands. Each island also had at least one unique species of land snail. The number of islands, their isolation and the snails' limited range have resulted in tremendous natural diversity. Just as in the Galapagos Islands, the Kimberley islands are a drawcard for the study of evolution.

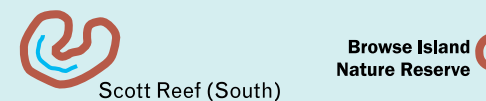
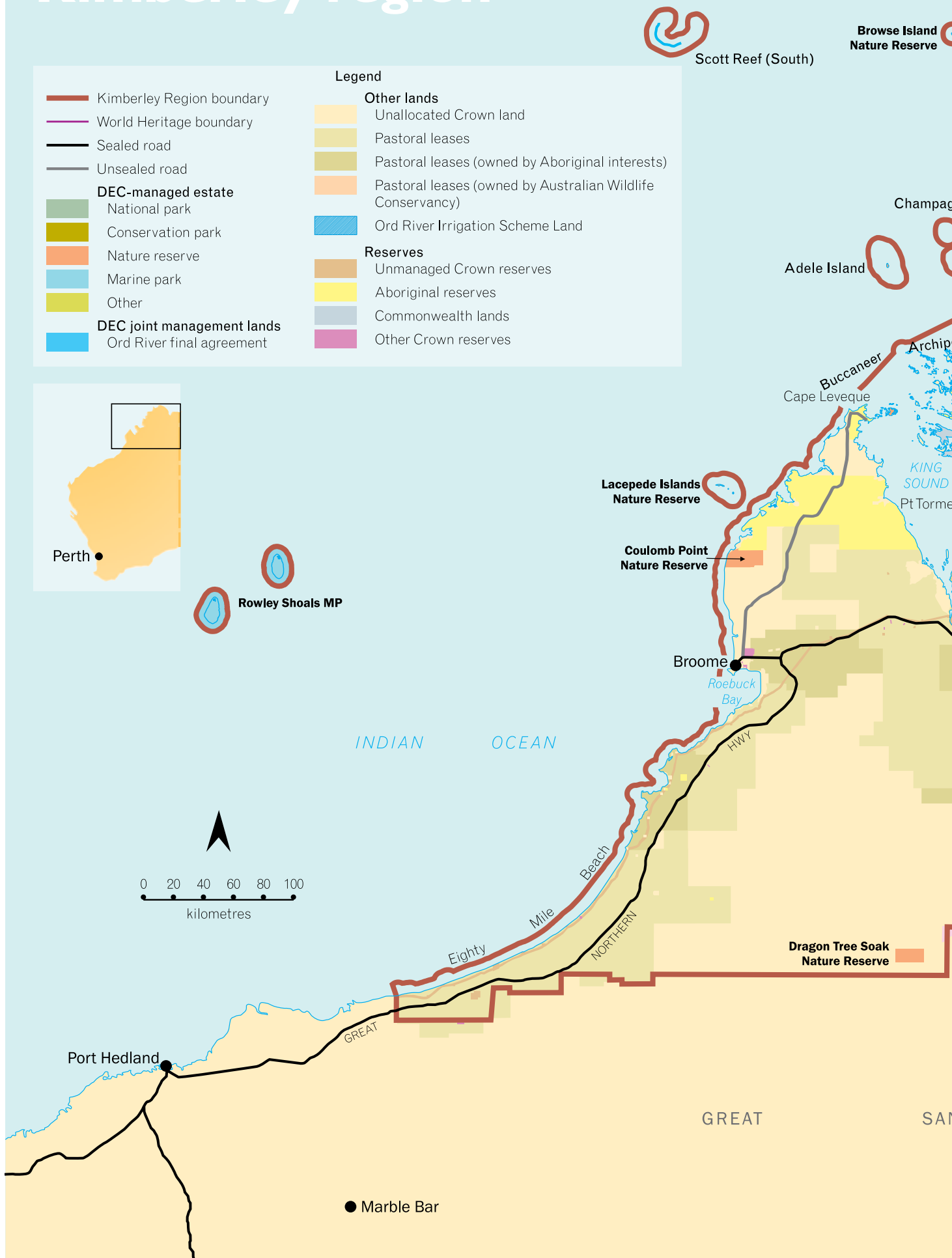
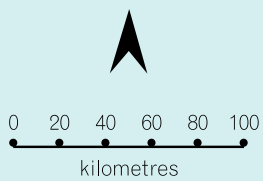
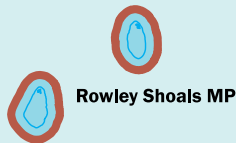


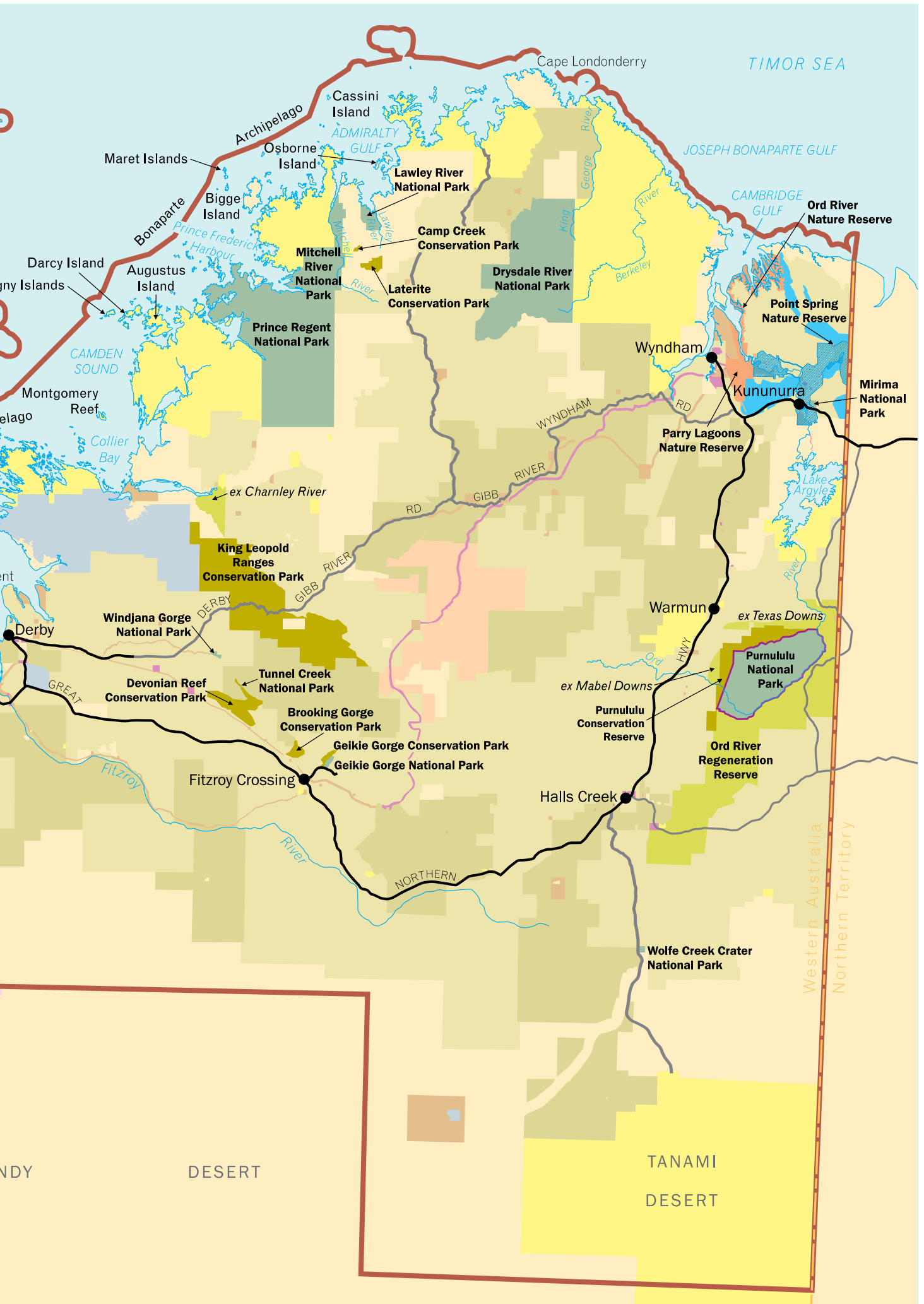
Insets: Yellow-lipped bat (*Vespadelus douglasorum*), Storr Island Photo – Norm McKenzie/DEC
Individuals of a smaller species of land snail (*Westracystis lissus*) sealed to the larger *Amplirhagada* sp. Photo – Vince Kessner/DEC

Kimberley region

Legend

 Kimberley Region boundary	 Other lands
 World Heritage boundary	 Unallocated Crown land
 Sealed road	 Pastoral leases
 Unsealed road	 Pastoral leases (owned by Aboriginal interests)
DEC-managed estate	 Pastoral leases (owned by Australian Wildlife Conservancy)
 National park	 Ord River Irrigation Scheme Land
 Conservation park	Reserves
 Nature reserve	 Unmanaged Crown reserves
 Marine park	 Aboriginal reserves
 Other	 Commonwealth lands
DEC joint management lands	 Other Crown reserves
 Ord River final agreement	





Science in the Kimberley


While scientists have made substantial inroads in documenting the landscape, seascape and biological values of the Kimberley in recent decades, the region remains one of the great frontiers for science. The central and south-eastern Kimberley, the vast tracts of Aboriginal land along the north-west coast and most of the coastal waters remain largely unexplored. Data from the WA Herbarium reveal one in eight plants collected in the wet season are new species for the Kimberley.

A science paper, *A synthesis of scientific knowledge to support conservation management in the Kimberley region of Western Australia*, prepared by DEC as a starting point to summarise some of the published scientific knowledge relevant to biodiversity conservation in the region, is available at www.dec.wa.gov.au/kimberleystrategy.

Notable research includes a major ecological survey of the Kimberley rainforests undertaken between 1987 and 1989, published in the 1991 book *Kimberley Rainforests of Australia* by NL McKenzie, RB Johnston and PG Kendrick.

Conservation reserve system priorities were examined in detail in the 1991 publication *Nature Conservation Reserves in the Kimberley*. A Biodiversity Audit of Western Australia undertaken in 2004 is available at <http://www.dec.wa.gov.au/science-and-research/biological-surveys/a-biodiversity-audit-of-wa.html>. A major terrestrial biological survey by DEC, the Kimberley Land Council and the WA Museum of 22 of the largest islands off the north Kimberley coast, has more than doubled the number of vertebrate animal and plant species known to occur on the islands, and discovered many previously unknown populations of mammal, snake, lizard, frog and land snail species.

The Kimberley region has a long and complex geological history dating back at least 1,910 million years, while there is evidence that the formation of the Earth's crust underlying parts of the Kimberley Basin probably took place 2,700 million years ago. The proposed geochemical and geophysical survey programs are aimed at understanding both the Kimberley region's role in the story of the assembly of the Australian continental plate, and the 250-million-year evolution of the Kimberley



Northern quoll (*Dasyurus hallucatus*) captured in a biological survey ready for release
Photo – Lesley Gibson/DEC

landscape, which includes such distinctive features as the sandstone cliffs and islands of the drowned Kimberley coastline, the sandstone karst beehives of Purnululu, and the exhumed 350-million-year-old Devonian barrier reef of the Napier and Oscar ranges.

The WA Marine Science Institution (WAMSI) has identified priority areas for marine research in the Kimberley in its 2008 report *A turning of the tide: Science for decisions in the Kimberley Browse marine region*. Research underway in the Kimberley by the Australian Institute for Marine Science includes a project funded by Woodside Energy on behalf of the Browse Joint Venture, to undertake a baseline environmental study of Scott Reef, about 430 kilometres north-west of Broome. Woodside is also supporting the WA Museum's Inshore and Mid Shelf Kimberley Marine Biological Surveys that will assist in understanding the ecological value of marine life in the Kimberley as well as giving reliable estimates of the species diversity of the Kimberley region. While scientific knowledge about the Kimberley marine environment is expanding, much more research has been undertaken in

marine ecosystems at similar latitudes elsewhere in the world.

Over the past three years, the Tropical Rivers and Coastal Knowledge (TRaCK) research consortium in partnership with the Department of Water has been undertaking research on tropical rivers and coasts and their communities. The aim of the research program is to provide science and knowledge that government, communities and industries need for the sustainable use and management of tropical rivers and estuaries.

Despite this progress, there is a need for targeted and prioritised research including biological and geological survey programs to provide the knowledge and information necessary to support sustainable resource development decisions, and marine, terrestrial and freshwater conservation planning and management. This is especially important given the increasing level of tourism, resource development and other activities occurring in the Kimberley. The State Government is investing \$14.2 million in a significant marine research program to help meet this need.



Insets: Gathering data in biological surveys on Kimberley islands Photo – Lesley Gibson/DEC
...and in Rowley Shoals Marine Park Photo – John Huisman

Tourism attractions and opportunities

Two of the top three tourism destinations in Western Australia (ranked by the Royal Automobile Club in 2009) are in the Kimberley, with Purnululu National Park placed first and the Kimberley coast third.

The Kimberley region attracts an estimated 350,000 overnight visitors per annum (Kimberley Development Commission), spending approximately \$256 million within the region (or 15.5 per cent of gross regional product). Parks and other natural attractions underpin a valuable and expanding nature-based tourism industry: Kimberley national parks and reserves, covering 2.3 million hectares, attract around 300,000 visits each year. The growing nature-based economy provides significant opportunities to contribute to social, economic and environmental outcomes.

The main gateway to the Kimberley region is Broome, a unique coastal town with a wide range of accommodation options, from backpacker hostels to luxury resorts. In addition to the spectacular coastline of Cable Beach,

Broome has a rich multicultural heritage arising from the town's pearling industry. Attractions include the dinosaur footprints at Gantheaume Point, Chinatown, camel rides along Cable Beach, pearl farms and Roebuck Bay, an internationally significant site for migratory shorebirds.

Attractions and activities in the Kimberley region mainly focus around the unique, rugged and remote landscapes. Popular natural attractions in the region include Windjana Gorge National Park, Tunnel Creek National Park, Geikie Gorge National Park, King Leopold Ranges Conservation Park, Mitchell Falls National Park and Purnululu National Park. As these attractions are significant distances apart, they are mostly visited by self-drive visitors using the Gibb River Road or Great Northern Highway to explore the region.

The Gibb River Road, spanning some 637 kilometres from Derby to the junction of the Great Northern Highway near Kununurra, is one of Australia's great outback adventures. The road cuts through spectacular country book-ended by King Leopold Ranges Conservation



Camels on Cable Beach, Broome
Photo – Kimberley Media

Park to the west and the Cockburn Range to the east. Attractions along the Gibb River Road include Durack River, Manning Gorge, Adcock Gorge, Galvans Gorge and Bell Creek Gorge. Most of the Gibb River Road is unsealed, all part of its attraction for four-wheel-drive enthusiasts. The road is inaccessible for several months of the year during the wet season.

The stunning Mitchell Plateau features some of the most beautiful and unusual scenery in the Kimberley, including major waterfalls and unique fan palm forests. Travel to this remote area is increasing each year, and additional facilities and better road access for visitors are priorities.

In the east Kimberley, visitors are drawn to the Ord River and the vast Lake Argyle, to the dramatic beehive formations of Bungle Bungle Range and wealth of Aboriginal culture in the World Heritage-listed Purnululu National Park, and to the striking 300,000-year-old meteorite crater in Wolfe Creek Crater National Park, which is 880 metres across and almost circular.

The Kimberley is also home to a burgeoning cruising industry and has numerous tour operators (aircraft and cruise boats) who provide visitors with the opportunity to explore parts of the region that are otherwise inaccessible by road. More than 30 vessels operate between Broome and Wyndham as part of the Kimberley's \$250-million-per-annum expedition cruise industry, with the Buccaneer Archipelago and its Horizontal Waterfalls the major attractions. Aviation companies provide access to remote attractions including low impact eco-tourism accommodation and pastoral stations, which offer visitors a hands-on involvement in station activities.

Cultural tourism is also a key strength of the region. The Kimberley offers an extensive range of Indigenous attractions, activities and accommodation. Some of the Kimberley's Aboriginal tourism products are already delivering at international standards. The strategy will provide opportunities for Aboriginal tourism businesses to build their capacity and to establish the region as Australia's premier Aboriginal cultural tourism destination.



Insets: Pentecost River, Gibb River Road
Silica Beach, Hidden Island, Buccaneer Archipelago Photos – Tourism WA



Strategic framework

Vision

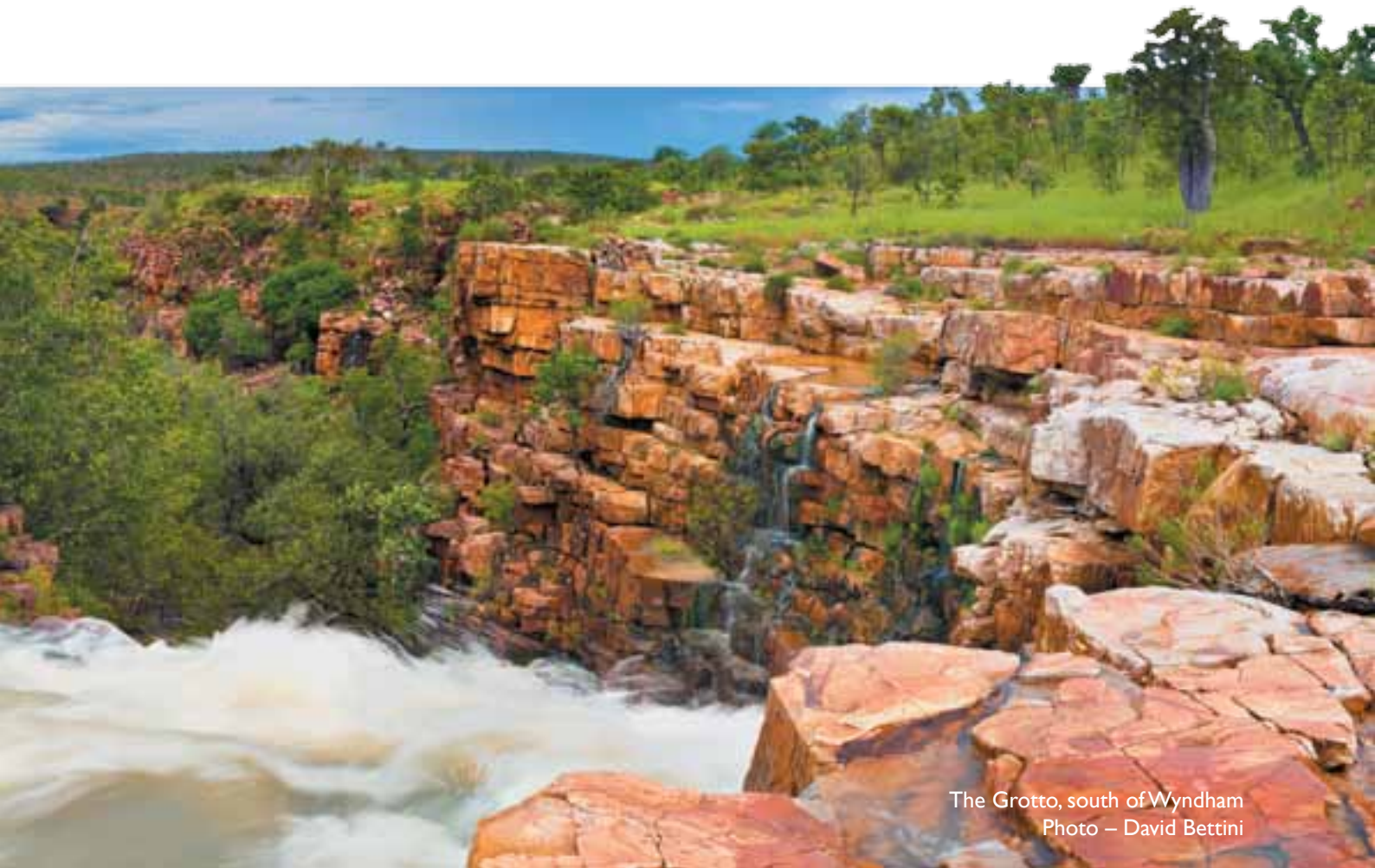
During the consultation process, the community called for the Kimberley's unique character to be protected, making it clear that the region held a special place in people's hearts and minds. This strategy's vision for the Kimberley is:

The spectacular natural environments and rich and living cultural traditions of the Kimberley are conserved for their intrinsic values and in a way that contributes to the long-term social, cultural, spiritual and economic wellbeing of the community.

Principles

To work towards this vision, the State Government will apply the following principles to guide decision making in the Kimberley:

- *Adaptive management.* Manage the region's natural resources in an adaptive and environmentally responsive way.
- *Outcomes-focused management.* Ensure that actions are outcome focused.
- *Respect for Aboriginal people.* Respect the rights, roles and aspirations of Aboriginal people and support them to identify and progress solutions to conservation in ways that have social, cultural, spiritual, environmental and economic benefits.
- *Maximise effort through partnerships.* Recognise that management for conservation will be most effective where it is undertaken in partnership with relevant land managers. The responsibility and cost of management should be shared according to the benefits received by the land manager, region or the broader community.
- *Sustained investment.* Provide the long-term funding required to manage and reduce key threats to the region's marine and terrestrial biodiversity.
- *Landscape-scale approach.* Recognise that effective conservation of biodiversity operates at the landscape and seascape scale across public and private tenures.
- *Enhance ecosystem resilience.* Maximise the integrity of natural systems and strategic ecological linkages by managing existing threats, such as altered fire regimes, introduced plants and animals.
- *Enhance scientific knowledge.* Use knowledge gained through science, traditional knowledge and local perspectives to underpin decision making.



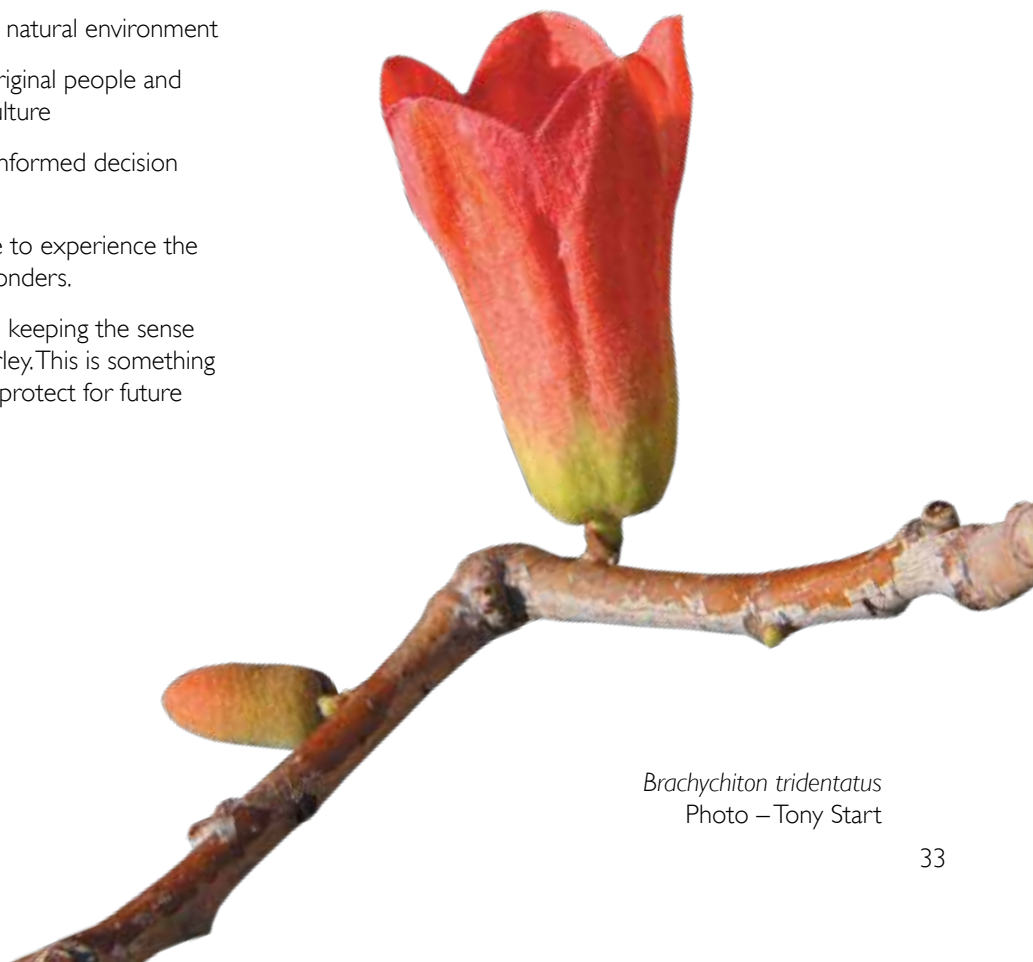
The Grotto, south of Wyndham
Photo – David Bettini

Themes

The strategy has four major themes:

1. conserving the Kimberley's unique natural environment
2. employing and involving local Aboriginal people and maintaining the Kimberley's rich culture
3. increasing knowledge to support informed decision making, planning and management
4. providing opportunities for people to experience the Kimberley's natural and cultural wonders.

The initiatives that follow are based on keeping the sense of place that is so strong in the Kimberley. This is something that we appreciate today and want to protect for future generations.



Brachychiton tridentatus
Photo – Tony Start

Theme 1: Conserving the Kimberley's unique natural environment

Objective	What this strategy will deliver	Responsibility
To establish a major interconnected system of marine and terrestrial parks in the north Kimberley	Establish the Kimberley Wilderness Parks. Establishment of the parks will provide opportunities for Aboriginal people to jointly manage areas and be involved and employed in management.	The State Government through DEC, with assistance from the Department of Fisheries (DoF), in partnership with traditional owners, pastoralists and other stakeholders
To establish a representative system of marine and terrestrial reserves	Establish four new, multiple-use marine parks in the Kimberley at Camden Sound, North Kimberley, Roebuck Bay and Eighty Mile Beach.	The State Government through DEC, with assistance from DoF, in partnership with traditional owners and stakeholders
	Protect priority Kimberley islands through reservation or joint management arrangements.	DEC, in partnership with traditional owners and stakeholders
	Enhance protection of Prince Regent Nature Reserve through its management as a Class A national park.	DEC, in consultation with traditional owners
	Create a national park in the Willie Creek Wetlands on Yawuru traditional lands, to be jointly managed with the traditional owners.	Yawuru traditional owners and DEC
	Protect important flatback turtle rookeries at Cape Dommett, at the mouth of the Cambridge Gulf, through negotiations with the Miriuwung-Gajerrong traditional owners to add the area to the jointly managed Ord River Nature Reserve.	Conservation Commission/DEC and Miriuwung-Gajerrong traditional owners
	As opportunities arise, progress strategic additions to the conservation reserve system that provide further linkages between parks and protect high conservation value areas.	The State Government through DEC, in consultation with traditional owners and other stakeholders
To ensure effective management of the system of conservation reserves	Implement management measures to reduce threatening processes, with a particular focus on altered fire regimes, introduced animals and weeds.	DEC, in consultation with traditional owners and stakeholders
	Evaluate management effectiveness and provide early warning detection for marine and terrestrial pests, such as the cane toad.	DEC, Department of Agriculture and Food (DAFWA), DoF and WA Museum
	Continue to consult with traditional owners, and progress joint management arrangements where agreed, including through native title determinations.	Department of the Premier and Cabinet (DPC) and DEC, in consultation with traditional owners and stakeholders



Black-winged stilts (*Himantopus himantopus*) and red-necked avocets (*Recurvirostra novaehollandiae*), Roebuck Bay
Photo – Jan van de Kam

Theme 1: Conserving the Kimberley's unique natural environment (continued)

Objective	What this strategy will deliver	Responsibility
To protect the Kimberley at a landscape scale by minimising the impact of key threats, especially altered fire regimes, introduced animals and weeds	Work with partners across the landscape to implement cooperative programs to manage fire, introduced animals and weeds. Deliver outcomes on ground through the engagement and employment of Aboriginal rangers, initially in the north Kimberley.	DEC, in consultation with DAFWA and the Fire and Emergency Services Authority (FESA) in collaboration with traditional owners, pastoralists, non-government organisations, local governments and the Commonwealth Government
	Create a conservation reserve corridor between Prince Regent National Park and Drysdale River National Park through voluntary partnerships and joint management with traditional owners and pastoralists.	DEC, in partnership with traditional owners, pastoralists and stakeholders
	Establish a reference group for the landscape conservation initiative in the north Kimberley, representing voluntary partners.	DPC and DEC
	Develop and apply improved fire management strategies to prevent loss of biodiversity and environmental values caused by large intense late season bushfires. This includes application of more traditional early dry fire season burning, including patch burn mosaics.	DEC and FESA, in collaboration with the Kimberley Land Council, the Wilinggin, Uunguu, Dambimangari and Balanggarra ranger groups, other partners and the Commonwealth Government
	Continue to support the Ecofire project coordinated by the Australian Wildlife Conservancy.	Australian Wildlife Conservancy, pastoralists, DEC, FESA, DAFWA, the Kimberley Land Council and Indigenous communities
	Continue to implement the Cane Toad Strategy for Western Australia 2009–2019.	DEC, DAFWA, Kimberley Toad Busters, Stop the Toad Foundation, local authorities and other stakeholders
	Develop and implement quarantine protocols and other measures to ensure Kimberley islands remain free of most exotic pests, particularly cane toads and introduced mammals.	DEC, in consultation with DAFWA and the WA Museum
	Continue to implement a program to eradicate introduced house mice, black rats and Polynesian rats from Adele, Sunday and Long islands, to protect seabird nesting colonies.	DEC, in partnership with traditional owners
	Continue to implement management programs for introduced animals and weeds, including feral pig, donkey and unmanaged cattle control in the north Kimberley, feral camel control in the southern parts of the region and feral cat control.	DEC, DAFWA, Department of Regional Development and Lands (DRDL), Pastoral Lands Board and pastoralists
	Invest in biosecurity programs to minimise the risk of the introduction of feral aquatic plants, animals and diseases into Kimberley marine environments.	DoF, in consultation with the WA Museum
	Ensure that species selected for pastoral diversification (e.g. irrigated pastures) have low potential as weeds.	DAFWA and DEC
Continue to develop, update and implement oil spill contingency plans.	Department of Transport (DoT), port authorities and industry	
Continue to monitor water temperatures at key coral reefs in the Kimberley via the US National Ocean and Atmospheric Administration (NOAA) which issues email alerts for coral bleaching events caused by climate change, and expand this program as opportunities arise.	DEC, DoT, port authorities and industry	

Theme I: Conserving the Kimberley's unique natural environment (continued)

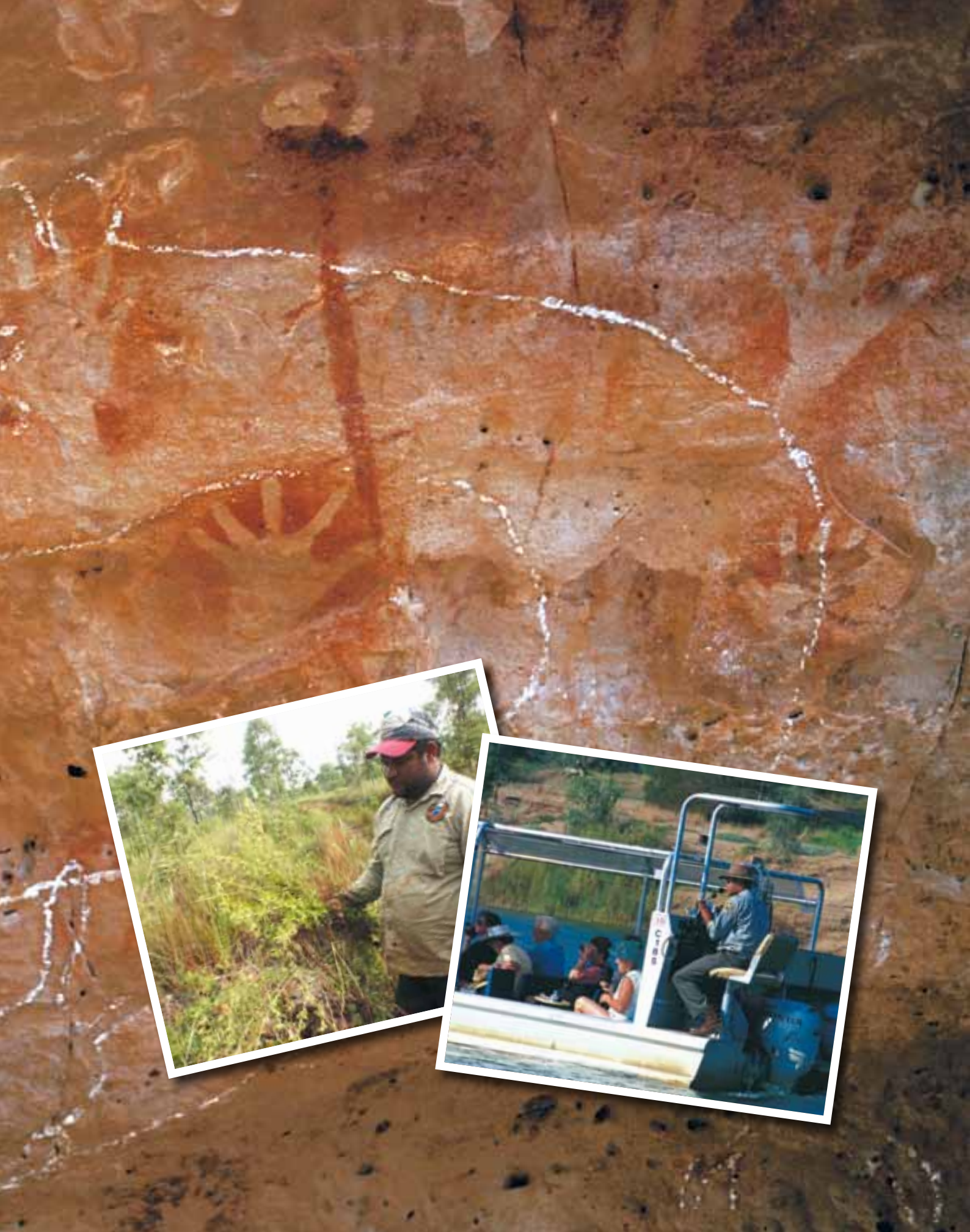
Objective	What this strategy will deliver	Responsibility
To increase conservation management on other lands and waters that supports and complements conservation reserve management at a landscape scale	Continue to seek partnerships with land managers in the Kimberley to identify and manage high value conservation areas, such as mound springs, manage threats, create conservation linkages between parks and promote conservation.	DEC, in partnership with traditional owners, pastoralists and resource industries
	Support pastoral lessees to diversify their operations, partly or entirely, into a range of economic development activities that are consistent with conservation outcomes through the Rangelands Reform Program. This will improve the viability of some pastoral leases, and promote growth in activities such as remote tourism accommodation and facilities.	DRDL in consultation with DEC, the Department of Mines and Petroleum (DMP), Department of Indigenous Affairs (DIA), DAFWA, Department of Water, (DoW), DPC, Department of Planning (DoP) and Tourism WA
	Develop and implement the Safe Horizons Project, a marine navigation management plan to manage the interaction between shipping activity and marine life in the north-west.	DoT in consultation with DEC and DoF and with the Australian Maritime Safety Authority



Buccaneer Archipelago
Photo – David Bettini

Theme 2: Employing and involving local Aboriginal people and maintaining the Kimberley's rich culture

Objective	What this strategy will deliver	Responsibility
To promote joint management and recognition of Aboriginal customary activities	Establish the legal mechanisms to allow for joint management of lands by Aboriginal people and DEC, and expand Aboriginal customary activities that can be undertaken on conservation reserves. In doing so, the State will meet its obligations under native title agreements, including two in the Kimberley with the Miriwung-Gajerrong and Yawuru people, as well as native title claims in negotiation. Joint management arrangements will be negotiated with traditional owners for the new marine and terrestrial parks proposed in this strategy.	The State Government through DPC, DEC and DIA in consultation with traditional owners
	Involve Aboriginal people in managing land and sea country through joint management arrangements as well as in making decisions and being involved in the planning and implementation of land management activities.	DEC, with assistance from DoF
	Support for Indigenous Protected Areas to complement State joint management initiatives.	DPC and DEC
	Implement the customary fishing policy for the Kimberley aimed at preserving the cultural values associated with customary fishing practices, within a framework of sustainable fisheries management.	DoF, in consultation with Aboriginal people
To provide opportunities for Aboriginal people to be engaged and employed in conservation	Support a network of Aboriginal rangers to operate in marine and terrestrial parks and across other tenures and provide opportunities for long-term employment, mentoring, training and career pathways for Aboriginal people. Where possible, rangers will be employed to work 'on country'. This initiative will support ranger programs already in place under the Kimberley Land Council. Rangers will help with coordinated fire management and introduced animal and weed control as part of the landscape-scale conservation initiative focused on the north Kimberley. They will also work with tour operators and visitors to promote positive visitor experiences while protecting cultural values.	DEC with assistance from DoF, working with the Kimberley Land Council and traditional owners
To acknowledge Aboriginal peoples' connection to the land through culturally appropriate place names	Ensure new additions to the conservation estate in the Kimberley region are given appropriate Indigenous names.	DEC, DIA and DRDL in consultation with traditional owners
	Seek to rename existing parks and reserves that currently have culturally inappropriate names.	DEC, DIA and DRDL in consultation with traditional owners



Insets: Uunguu ranger undertaking weed control Photo – John Haywood/DEC
Geikie Gorge boat tour Photo – Tourism WA



Prescribed burning to create a mosaic of burnt/unburnt patches
Photo – Ed Hatherley/DEC

Theme 3: Increasing knowledge to support informed decision making, planning and management

Objective	What this strategy will deliver	Responsibility
To improve knowledge and use this to inform adaptive management of the Kimberley	Undertake a major marine research program in the Kimberley that will improve management and protection of the Kimberley's marine ecosystems and establish the Integrated Marine Observing System in the region.	Department of Commerce (DoC), DEC, DoF and the Western Australian Marine Science Institution
	Undertake applied research through the on-ground projects under the landscape-scale conservation initiative. This will focus on fire ecology (traditional and scientific) to help establish an appropriate fire regime to maintain the Kimberley's unique natural environment, and to evaluate conservation management effectiveness aimed at improving conservation of the Kimberley's unique natural environment.	DEC, in partnership with non-government organisations, universities, traditional owners and other groups
	Develop an online knowledge portal to improve access for the community, industry public sector decision makers and researchers to existing scientific and cultural information relating to the Kimberley.	DoC, in partnership with DEC, WA Museum, DMP, DoF, DoW and other agencies
	Undertake vegetation mapping for the Kimberley as a basis for planning and implementing ecologically appropriate fire management, for informing sustainable resource development decisions, and for conservation planning and management.	DEC and DAFWA, in consultation with universities, non-government organisations and traditional owners
	Support research into the Kimberley's unique rock art.	DIA, DEC and WA Museum, in collaboration with The University of Western Australia's Centre for Rock Art Research and its partners
	Identify key non-Indigenous and contact cultural heritage sites (e.g. Macassan, colonial explorer, mission, shipwrecks) in consultation with traditional owners.	WA Museum, DIA and DEC
	Continue to support biological surveys of important or poorly known taxa and ecological communities of the Kimberley, to determine their conservation status, guide land management and help assess development proposals.	DEC, WA Museum, DoF and DoW in partnership with other science-based organisations and traditional owners
	Continue targeted fauna and flora benchmark surveys and ongoing monitoring to assess changes in species distributions, especially for species known to be declining, in collaboration with traditional owners and Indigenous rangers, combining western scientific and traditional ecological knowledge.	DEC, in collaboration with the WA Museum, traditional owners and Indigenous rangers and non-government organisations
	Undertake a geochemical and geophysical survey program in the Kimberley Basin to gain an understanding of the fundamental geological framework, which will inform and complement land-use planning and science and conservation studies.	DMP, in consultation with the Department for State Development
	Continue to implement a social research program to inform management and ensure visitor experiences are maintained.	DEC, in partnership with universities and in consultation with traditional owners and Tourism WA
To plan for the future	Prepare an integrated regional land-use plan for the Kimberley that is consistent with this strategy, ensures the maintenance of the Kimberley's wild natural character, provides for Aboriginal interests and guides the region's economic and social development.	DoP
	Implement the strategic directions and actions for sustainable management of water resources and water services in the Kimberley to 2030 as outlined in the Kimberley regional water plan.	DoW

Theme 4: Providing opportunities for people to experience the Kimberley's natural and cultural wonders

Objective	What this strategy will deliver	Responsibility
<p>To increase the range and amenity of eco-tourism options and promote new tourism experiences</p>	<p>Upgrade camping, picnic, interpretive and associated visitor facilities at:</p> <ul style="list-style-type: none"> • Mitchell River National Park • King Leopold Ranges Conservation Park • Purnululu National Park • Geikie Gorge Conservation Park and Geikie Gorge National Park • Windjana Gorge National Park • Tunnel Creek National Park <p>to enhance visitor experiences and increase the capacity to cater for visitors in these parks.</p>	DEC
	<p>Undertake priority conservation works to protect the Mermaid Boab Tree, a highly visited site with immense historical value in Prince Regent National Park.</p>	DEC
	<p>Facilitate quality environmentally and culturally sensitive accommodation through the Naturebank program, at Purnululu National Park and Windjana Gorge National Park, through public-private partnerships.</p>	Tourism WA and DEC
	<p>Develop and promote tourism corridors across the region involving upgraded and new camping facilities and interpretive signage, and linking sites of interest with camping facilities approximately one day's drive apart.</p>	Tourism WA, DRDL and DEC in consultation with the tourism industry, traditional owners, DMP pastoralists and local authorities
	<p>Develop and promote self-drive journeys through the region, linking and interpreting sites of interest. This initiative will include the investigation and development of four-wheel-drive expedition routes showcasing Indigenous and non-Indigenous history, and linking with remote accommodation and tourism activities, including operations run by traditional owners and pastoral lessees. These routes will be developed on existing roads and tracks.</p>	Tourism WA, DRDL and DEC, in partnership with the tourism industry, traditional owners, DMP, local governments and pastoralists
	<p>Expand and promote the 'Ibis Aerial Highway' concept, facilitating access by air to world-class visitor experiences in remote areas of the Kimberley and improving access for residents by upgrading remote airstrips.</p>	Tourism WA, DRDL, DEC and pastoralists
	<p>Promote the values of Kimberley marine parks through an education and accreditation program with registered tour operators.</p>	DEC, DoF and Tourism WA in partnership with tour operators

Theme 4: Providing opportunities for people to experience the Kimberley's natural and cultural wonders (continued)

Objective	What this strategy will deliver	Responsibility
Increase the capacity of local Aboriginal people to participate in tourism ventures	Assist Aboriginal communities to identify and develop culture- and nature-based tourism opportunities at key sites, including along the Kimberley coast visited by tourist cruise ships. This will be achieved by: <ul style="list-style-type: none"> • building the capacity of up to 10 existing Aboriginal tourism businesses to export ready status • working with two coastal Aboriginal communities to establish tourism products to service the cruise tourism market • further enhancing the tourism experience at Mimbi Caves on Mt Pierre Station. 	Tourism WA, DRDL, DEC, the Kimberley Land Council, traditional owners, tour operators, Western Australian Indigenous Tourism Operators Committee and local governments
To maintain opportunities for remote fishing experiences off the north Kimberley coast	Investigate the creation of wilderness conservation areas in the tidal and freshwater reaches of some of the Kimberley's remote rivers, consistent with the proposed marine parks. These areas would allow fishers to catch and eat limited numbers of fish, but not take them home. This initiative will not affect Aboriginal customary fishing rights.	DoF, in consultation with traditional owners and stakeholders
	Provide a quality recreational fishing experience and reinstate barramundi to part of their former range through supplementary stocking of barramundi in Lake Kununurra. This project includes research on the genetics of barramundi stocks.	DoF





Implementing this strategy

Resources

The State Government is strongly committed to protecting the natural and cultural heritage of the Kimberley and has committed an initial \$63 million over five years to implementing the Kimberley Science and Conservation Strategy. This represents a major investment in the conservation of the Kimberley's unique values and will provide significant new opportunities for Aboriginal employment managing land and sea country and nature and culture-based tourism.

Efforts will be made to encourage complementary investment by the Commonwealth Government, industry and community groups. Partnerships with others, including non-government organisations, research organisations and other stakeholders will be sought, consistent with the direction set by this strategy.

Coordination and evaluation

Protecting the Kimberley is not just a government responsibility or imperative. It will not be possible to

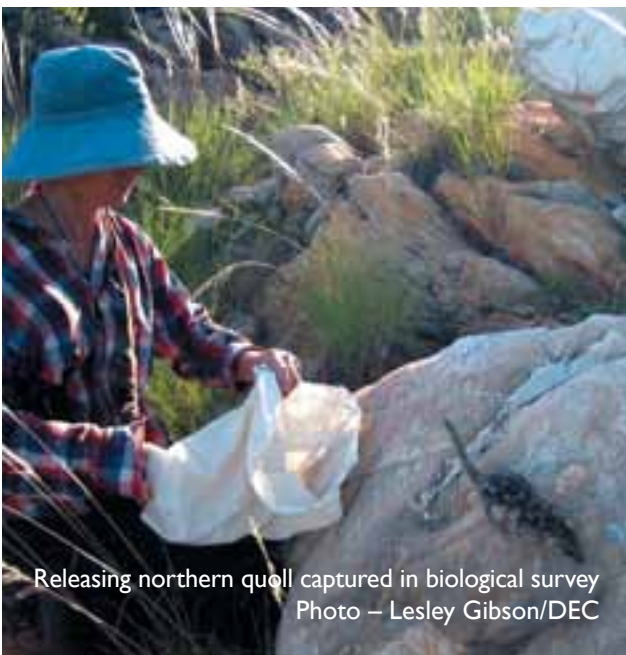
achieve long-term conservation of the Kimberley without partnerships between Aboriginal communities, the wider Kimberley community, pastoralists and agriculturalists, the resources sector, the tourism industry, non-government organisations, research institutions, and governments at the local, State and Commonwealth levels. The implementation of this strategy will involve different partners, playing different roles and carrying out different responsibilities dependent on their capacities and interests.

The Department of the Premier and Cabinet is responsible for coordinating and driving whole-of-government delivery, with key State Government agencies designated with responsibility for implementing specific actions.

All State Government agencies involved in the Kimberley strategy will report on their progress in their annual reports. The reference group (see page 36), representing voluntary partners, established to coordinate the landscape-scale initiative in the north Kimberley, will report separately on its progress.



Visitors on the beach at Careening Bay
Photo – Kimberley Media



Releasing northern quoll captured in biological survey
Photo – Lesley Gibson/DEC



Prescribed burning operations
Photo – Ed Hatherley/DEC



References

Department of Environment and Conservation (2009). *Cane Toad Strategy for Western Australia: 2009–2019*. DEC, Perth.

Department of Environment and Conservation (2009). *Protecting the Kimberley, A synthesis of scientific knowledge to support conservation management in the Kimberley region of Western Australia*. DEC, Perth.

Donaldson, MJ and Kenneally, KF (eds) (2007). *Rock art of the Kimberley*. Kimberley Society, Perth, Western Australia.

Ellison, C (2009). *Foundations for a Kimberley strategy, Report by Hon Chris Ellison on the consultation process for the Kimberley Science and Conservation Strategy*.

Ellison, C (2009). *Foundations for a Kimberley strategy, Report by Hon Chris Ellison on the consultation process for the Kimberley Science and Conservation Strategy*. Volume 2 Appendices 1–7.

Ellison, C (2009). *Foundations for a Kimberley strategy, Report by Hon Chris Ellison on the consultation process for the Kimberley Science and Conservation Strategy*. Volume 3 Written submissions, presentations and meeting notes.

Fitzsimons, J, Legge, S, Traill, B and Woinarski, J (2010). *Into oblivion? The disappearing native mammals of northern Australia*. The Nature Conservancy, Melbourne, Victoria.



Acronyms

Cape Domett
Photo – David Bettini

DAFWA Department of Agriculture and Food
Western Australia

DEC Department of Environment and
Conservation

DIA Department of Indigenous Affairs

DoC Department of Commerce

DoF Department of Fisheries

DoP Department of Planning

DoT Department of Transport

DoW Department of Water

DMP Department of Mines and Petroleum

DPC Department of the Premier and Cabinet

DRDL Department of Regional Development
and Lands

FESA Fire and Emergency Services Authority



Sugar glider (*Petaurus breviceps*) Photo – Keith Claymore
Freshwater crocodile (*Crocodylus johnsoni*) Photo – David Bettini



Diamond dove (*Geopelia cuneata*) Photo – David Bettini
Kimberley rose (*Brachychiton viscidulus*) Photo – Keith Claymore



Water python (*Liasis fuscus*)
Boab tree (*Adansonia gregorii*) Photos – David Bettini



Cover: Carr Boyd Range
Photo – David Bettini



www.dec.wa.gov.au/kimberleystrategy

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