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he Kimberley is a spectacular place, renowned for its natural and cultural significance as well as its raw beauty. It holds a special place for many people, locally, in Western Australia, Australia and across the world.

The state government's \$63 million Kimberley Science and Conservation Strategy, released in June 2011, is a bold vision to ensure the region's long-term conservation (see 'Protecting the Kimberley wilderness', LANDSCOPE, Summer 2011-12). The strategy has four major themes: conserving the Kimberley's unique natural environment; working with and employing local Aboriginal people and maintaining the Kimberley's rich culture; increasing knowledge to support informed decision-making, planning and management; and providing opportunities for people to experience the Kimberley's natural and cultural wonders.

A key objective of the Kimberley strategy is to manage the north Kimberley at a landscape scale (known as the landscape-scale conservation initiative). This means managing threats—such as fire, feral animals and weeds—cooperatively across property boundaries and in partnership with traditional owners and key stakeholders including pastoralists and the Australian Wildlife Conservancy (AWC), to increase the resilience of ecosystems across the whole landscape.

From the outset, the state government has been determined to ensure that the Kimberley strategy engages and involves people who live and work in the central and north Kimberley. For Aboriginal people, this approach has the potential to create employment opportunities, helping to maintain the rich culture of the Kimberley. Numerous government agencies, non-government organisations and Aboriginal communities across the state are now working together to make the vision a reality, bringing about better on-ground management of country through control of weeds and feral animals and through enhanced prescribed burning programs.





Connection to country

The Kimberley has a diverse and living Aboriginal culture. Aboriginal people have inhabited the region for up to 60,000 years and today almost half of Kimberley residents are of Aboriginal descent. Traditional owners maintain a relationship to land in accordance with traditional laws and customs. Traditional ecological knowledge has been handed down from generation to generation and can be used in conjunction with modern science to inform land management practices and decisions.

Aboriginal people working on their own country, in the coordinated management of fire, feral animals and weeds as part of the landscape-scale conservation initiative, will deliver significant social and environmental outcomes. The Department of Environment and Conservation (DEC)

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Main Mitchell Falls in Mitchell River

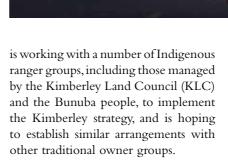
National Park is within Uunguu Country.

Photo – David Bettini

Above Kimberley scrub fire. *Photo – Jiri Lochman*

Left Traditional owners controlling weeds on their country.

Photo – Bel Catcheside/DEC



The state government recently passed the Conservation Legislation Amendment Act 2011 through Parliament to allow for joint management of conservation reserves between DEC and other parties, including traditional owners. Successful joint management programs are already in place in Broome and Kununurra, with the Yawuru and Miriuwung-Gajerrong traditional owners respectively, employing more than a dozen Aboriginal staff. The Act also expands the range of Aboriginal customary activities that can be undertaken in conservation reserves.

Managing fire

The Kimberley strategy is integrating contemporary science with traditional Aboriginal practices and knowledge by carrying out prescribed burning to create a mosaic of burnt and unburnt country in the late wet

and early dry seasons. The resulting patchwork effect (see maps on page 48) reduces the amount of fuel available to burn and therefore reduces the risk of large, intense and damaging fires later in the dry season.

Changes in the vegetation structure are already evident as a result of burning programs such as Ecofire, a multi-stakeholder initiative coordinated by AWC. Originally funded through Rangelands Natural Resource Management as a short-term project, funding by DEC through the Kimberley strategy will enable Ecofire to continue in the future. Several years of managed prescribed burning by both AWC and DEC over multiple properties and land tenures has resulted in a range of vegetation of different ages across the Kimberley, which inhibits the occurrence of massive fires and improves biodiversity outcomes.

The Kimberley strategy is providing funding to expand these prescribed burning programs and to substantially increase the involvement of Aboriginal people in this work. In February and March each year, DEC staff meet with traditional owner groups to discuss

Above The Bunuba traditional owners have been involved in constructing new visitor facilities at Geikie Gorge (pictured above) and Tunnel Creek national parks.

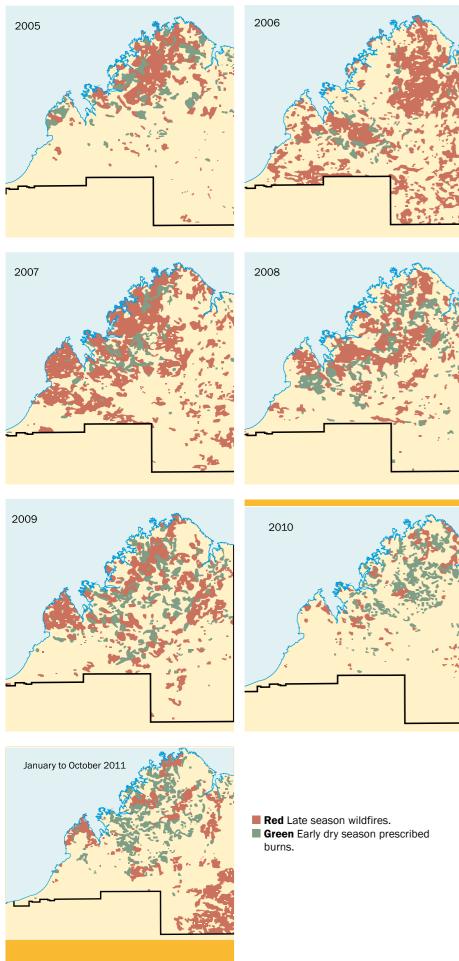
Photo – liri Lochman

which areas they would like to burn. Once an aerial burning program has been agreed upon, DEC conducts the prescribed burns and takes traditional owner representatives in the aircraft. In addition, Indigenous rangers are offered DEC's wildfire awareness training and some nominated rangers have already been trained to operate in more 'hands-on' roles. About 60 Aboriginal rangers, traditional owners and people from the four main claim groups in the north Kimberley took part in early dry season burning for 2011, which involved 300 hours of flight time in two aircraft.

In readiness for the 2012 burning season, DEC provided further basic and advanced firefighting courses (including training for incendiary operators and aerial navigators) for up to four representatives from each of the relevant claim groups across the Kimberley in February and March.

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DEC has also begun discussions with traditional owners about the possibility of claim groups helping to undertake ground-based burning activities around cultural and firesensitive sites within the Wilinggin and Uunguu claim areas in advance of aerial burning.

DEC has installed multi-frequency radios in some KLC vehicles to improve on-ground communications between DEC and the KLC ranger groups. The Kimberley strategy has also funded the provision of a number of fire trailers, which are available for use by Aboriginal ranger groups.

Tackling feral animals

A program to eradicate feral pigs in the northern and central Kimberley is being developed by DEC and local Aboriginal ranger groups. Feral pigs are recognised as a significant threat to biodiversity conservation in the Kimberley due to habitat destruction, particularly along waterways. They can also transmit a range of endemic and exotic diseases. It is important for land managers to learn more about feral pig distribution and densities across the Kimberley and determine priorities for control actions.

A week-long feral pig training workshop held in Fitzroy Crossing in early August 2011 provided a great opportunity for Aboriginal rangers and land management organisations to exchange knowledge and plan the future management of feral pigs in the Kimberley. The workshop involved DEC staff, Miriuwung-Gajerrong rangers employed by DEC, Lake Argyle joint management rangers, KLC rangers and independent Aboriginal ranger groups from across the Kimberley. The training covered the impact of feral pigs and different control options, including trapping, shooting and baiting. This was followed by practical on-ground activities, such as building, setting and checking traps. The week concluded with a planning day in conjunction with KLC and the Department of Agriculture and Food WA, which focused on sharing knowledge and mapping areas where pigs were known to be present. This information will be used as a basis

Right Setting traps for feral pigs. Photo - DEC

Below right Cathy Goonack from the Kandiwal community recording mammal measurements being taken by DEC's lan

Photo - Richard Tunnicliffe/DEC

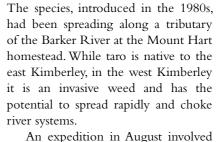
for developing joint works programs between DEC and Aboriginal ranger groups for feral pig control in the northern and central Kimberley.

Using additional resources made available through the Kimberley strategy, DEC has been able to expand the feral animal control program that has been in place for a number of years at Mitchell River National Park in the north Kimberley. Throughout the whole region, feral cattle, horses and donkeys create substantial grazing pressure on natural vegetation and impact on wetlands, streams and rivers, decreasing habitat values for native animals. In partnership with the Department of Agriculture and Food WA and neighbouring pastoralists, DEC has increased the duration and coverage of its operations to cull feral animals from strategic areas. DEC will continue to consult with pastoralists, non-government organisations and Aboriginal communities about future culling operations that may be feasible and about where other options such as fencing and/or mustering are warranted.

Joint weed control efforts

Collaborative weed control work is an important component of the Kimberley strategy. The strategy aims to facilitate the training and employment of Aboriginal rangers to undertake collaborative activities targeting weed invasion and biodiversity conservation.

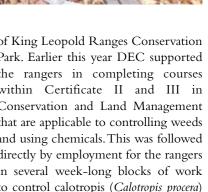
DEC's West Kimberley District has developed an important partnership with the Wunggurr Aboriginal ranger group to work together; share knowledge, skills and training; and facilitate on-country land management activities. As part of this, DEC and the Wunggurr rangers recently began to eradicate an infestation of taro (Colocasia esculenta var. aquatilis) in King Leopold Ranges Conservation Park.



a trial program to survey the extent of the infestation and test different weed control methods. Spraying foliage with herbicide was found to be the most effective method, and almost two hectares of taro were sprayed twice in a follow-up expedition in September. DEC and Wunggurr rangers will continue to re-treat the affected area in the coming months and further survey work will be undertaken downstream to check for potential infested pockets.

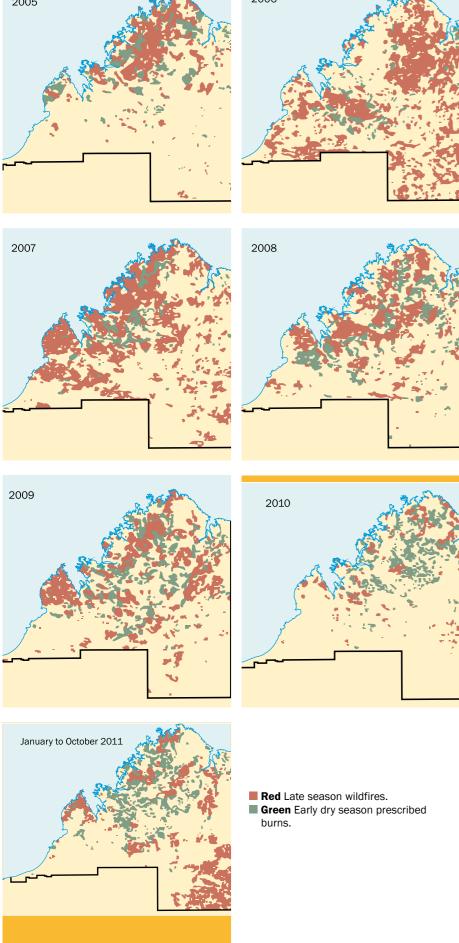
Bunuba rangers have also been employed by DEC to conduct weed control activities in the southern half

of King Leopold Ranges Conservation Park. Earlier this year DEC supported the rangers in completing courses within Certificate II and III in Conservation and Land Management that are applicable to controlling weeds and using chemicals. This was followed directly by employment for the rangers in several week-long blocks of work to control calotropis (Calotropis procera) along the Milliewindie Track.





A number of Wunambal Gaambera traditional owners from the Kandiwal community near Mitchell River National Park worked with DEC staff in 2011 in monitoring a suite of sites in the Mitchell Plateau. These sites are being monitored to collect baseline data so that the impact of management actions on native vegetation and fauna can be measured over time. Such short-term employment opportunities





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Left Setting a feral pig trap. Photo – Richard Tunnicliffe/DEC

Below King Leopold Ranges Conservation Park

Photo - David Bettini

provide a forum to exchange knowledge on plants and animals found in the area. DEC hopes to expand its involvement of traditional owners in the monitoring program in coming years.

The aim is also for Aboriginal rangers to work with tour operators and visitors to promote positive visitor experiences while protecting cultural values.

The Kimberley strategy will offer support to Aboriginal communities to identify and develop culture- and nature-based tourism opportunities at key sites, including those along the Kimberley coast visited by cruise ships. This offer includes Tourism WA and other stakeholders working together to develop up to 10 existing Aboriginal tourism businesses and establish tourism products to service the cruise tourism market. There are also opportunities to further enhance the tourism experience at Mimbi Caves on Mount Pierre Station.

As part of the marketing and development of Kalumburu Road as a 'tourism corridor', DEC has collaborated with Drysdale River Station to address rubbish management issues along one section of the road.

Looking for partnership opportunities where sustainable land management outcomes can be achieved is at the heart of many of the programs and projects that sit under the Kimberley strategy.

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 federal levels. Implementation of this strategy will involve different partners, playing different roles and carrying out different responsibilities, depending on their capacities and interests.

