



Excellence recognised at Environment Awards

MEN of the Trees's Carbon Neutral project received multiple awards for its outstanding efforts to protect the natural environment when it was honoured with other high achievers at this year's WA Environment Awards.

The emissions offsetting project launched by Men of the Trees in 2001 won its category – Community Achievement Group Award – and was chosen as the overall Environment Award winner from all the category winners.

The project also received the Minister's Act Now Award which was personally chosen by the Minister for the Environment; Climate Change, David Templeman, and presented for the first time this year.

Minister Templeman commended Men of the Trees for their outstanding achievement in the fight against climate change. They work with about 1400 individuals and more than 300 organisations by contributing to revegetation projects to offset the greenhouse gas emissions produced by their activities.

He said the program also educated the community about the effect on the environment of motor vehicle use, air travel and energy consumption.

Minister Templeman said the Carbon Neutral project was selected to win the top



Staff from Carbon Neutral / Men of the Trees with their category award and the overall award at the WA Environment Awards ceremony. Photo – DEC

WA Environment Award from 22 finalists across 12 award categories.

"Since 2001, more than 875,000 native trees at 40 different sites have been planted

through the Carbon Neutral program," he said.

"About 80 per cent of the trees planted have survived and are now providing protection from soil erosion, helping combat salinity,

restoring biodiversity and providing habitat for native fauna.

"Through the efforts of Carbon Neutral about 150,000 tonnes of CO2 greenhouse gas will be sequestered over a 70-year period, equivalent to removing around 37,500 cars from the road."

CEO Leo Kerr and General Manager Angela Tillier from Men of the Trees accepted the awards and thanked the other finalists for bringing climate change to the fore of political and social conversation.

The WA Environment Awards celebrate the wide-ranging environmental achievements of dedicated individuals, businesses, government agencies and community groups.

They aim to reward and focus public attention on those people showing outstanding leadership, dedication and imagination in their projects and approaches to support sustainable development and environmental care and conservation. This year there were 69 high-quality nominations for the awards.

Minister Templeman said it was an honour to present the sixth WA Environment Awards and to be in the presence of so many people who had made exceptional efforts to protect or enhance the WA environment.

continued on page 3

Work starts on new science centre and herbarium



Architect Lynnette Gardiner from Ferguson Architects with the model of the new biodiversity conservation science centre and herbarium joining the existing office buildings. Photo – Joanna Moore

CONSTRUCTION has begun on DEC's new biodiversity conservation science centre and herbarium.

DEC Director General Keiran McNamara said the facility was a major investment by the Government in biodiversity conservation science.

"It will provide a new State Herbarium and also a central business hub at the department's Kensington offices," he said.

With 9000 square metres of floor space, the building is designed to house the existing plant collections of the WA Herbarium and allow for them to double in size over the coming years.

WA Herbarium Curator Kevin Thiele said this should allow for 20 to 30 years of expansion of the herbarium's important collections of plants, algae and fungi.

"We are looking forward to the facilities the new herbarium will offer and to the major projects and initiatives which will occur there, such as the development and publication of a complete electronic flora of Western Australia," he said.

The three-storey building will have a central atrium creating a display space for

general departmental information and will be connected to the existing office buildings.

The link between the new and old buildings will create a central courtyard, featuring a staff lunch and recreation area adjoined by meeting rooms and a new cafeteria.

The facility will also feature a new resource centre designed to accommodate resources of the three existing departmental libraries.

Keiran said the new science centre and herbarium would accommodate herbarium staff and the science administration group.

"The facility is part of the department's plan to co-locate all DEC's science staff and technical and policy staff on the Kensington site," he said.

Ferguson Architects, who are responsible for many of The University of Western Australia's building works, have designed the building.

Its total project cost is estimated to be \$32.3 million and the tender for stage one has been awarded to Universal Constructions Pty Ltd, at a value of \$26.4 million. The long-awaited project is scheduled for completion by mid 2009.

South Africa visit lifts job interest

By Joanna Moore

AN intensive recruitment drive promoting career opportunities with DEC was well received in South Africa.

Wheatbelt Regional Manager Bruce Bone, Environmental Impact Assessment Division Acting Director Colin Murray and Wheatbelt Regional Operations Manager Wayne Elliott visited South Africa in October.

They visited Port Elizabeth, Cape Town, Johannesburg, Durban and Pietermaritzburg to brief people about DEC and living in Western Australia.

"About 120 people attended the information sessions, representing a wide cross section of conservation and environment professionals," Bruce said.

"Most people had little knowledge of WA and were keen to have their questions answered about what it's like to live and work here."

People at the sessions attended after responding to advertisements placed in newspapers and online the week before the visit.

The advertisements, which have also been published in Canada, New Zealand and the UK, encourage people interested in working for DEC to register as potential applicants with the WA Government Job Board, as well as with the department's own newly established overseas recruitment register.

DEC Manager Workforce Services Tracey Rankin said more than 500 people had expressed their interest on the register, which was accessible through a feature on the department's NatureBase website, titled 'Looking for a change of environment?'

The register is part of a campaign to attract people from overseas to meet the high demand in WA for people with suitable qualifications.

"A number of applications from registered people from overseas have already been submitted for individual DEC positions," Tracey said.

The department has also produced a booklet with information about living in WA and working for DEC.

In a separate aspect of the South Africa trip, Colin, Bruce and Wayne met with the executive management of several South African conservation agencies with the aim of building professional relationships. They discussed opportunities for staff exchanges and the potential for joint efforts in areas such as climate change and fire management.

"We also had the opportunity to visit some important conservation assets such as Hluhluwe - Umfolozi Game Reserve, Greater St Lucia Wetland Park and Addo Elephant National Park, which provided interesting comparisons to the management of the conservation estate within WA," Bruce said.



Executive management of KwaZulu Natal Wildlife meet the DEC team – Colin Murray (back row, second from left), Bruce Bone (back row, third from left) and Wayne Elliott (back row, far right). Photo – DEC

Working Together

As another demanding year draws to a close, I want to thank all the staff of the Department for your hard work, dedication and enthusiasm this year. The Department's greatest asset is its staff, and both the Minister and I overwhelmingly receive positive comment about the commitment and professionalism of DEC employees as we move around the State.

One of our biggest challenges this year has been in the area of environmental regulation. As a consequence of Government decisions in the 2007/08 budget and subsequently in response to the Esperance lead issue, our annual funding for industry regulation and compliance monitoring is rising by \$5.6 million. A major focus in 2008 will be the rollout of improved environmental regulation through both regional delivery and strong central standards and support.

At the time of writing this column, State Parliament has just passed the new waste and resource recovery legislation, the implementation of which will be another priority for the Department next year. Congratulations to those who have worked towards this outcome over a long period.

Right across the Department, from park and forest management to biodiversity conservation, fire, climate change, scientific research, and environmental assessment and protection in a booming economy, and in all the supporting service areas, I believe DEC staff can be proud of our achievements and our contribution to a better State. It is particularly pleasing to see the commencement of construction of our new Biodiversity Science Centre and Herbarium at Kensington.

Together with our Minister, David Templeman and my colleagues on the Department's Corporate Executive, I would like to extend to all our staff, our statutory authority members, and our many volunteers and partners, my best wishes for a happy and safe Christmas and New Year.

The summer brings with it inevitable wildfires that will occupy hundreds of our staff, and their safety and that of the community will be our top priority in fighting those fires.

Keiran McNamara, Director General



Community role key in bike trail success



Executive Officer Munda Biddi Trail Foundation Jenny Verne-Taylor (left), DEC Recreation Activities Coordinator Stuart Harrison, Chair Munda Biddi Trail Foundation Ron Colman, DEC Deputy Director General Parks and Conservation Jim Sharp, DEC Assistant Director Visitor Services Tracy Shea and Munda Biddi Trail Foundation Marketing and Events Coordinator Crystal Reed at the signing of the MOU at Kensington. Photo – Robyn Weir

COMMUNITY support for Western Australia's long-distance bike trail, the Munda Biddi Trail, has been recognised with the signing of a Memorandum of Understanding (MOU).

DEC Director General Keiran McNamara signed the MOU with the Munda Biddi Trail Foundation to formalise the roles and responsibilities of the foundation as the main advocate and supporter of the trail.

Keiran said the agreement would provide greater opportunities for promotion of the trail and the State's south-west region.

The Munda Biddi Trail was started in 2000 and has grown to become an important tourism attraction in the south-west with an estimated 20,000 people using the open section of the track each year.

It extends 330km from Mundaring to Collie and the next 150km section between Collie and Nannup should be completed early next year, with more extensions planned.

DEC Deputy Director General Parks and Conservation Jim Sharp said there were very few long-distance mountain bike trails in Australia, particularly ones that travelled through an array of biodiversity

and scenery inherent in jarrah, karri and marri forests.

"The trail showcases the environment, much the same as the Bibbulmun Track has done, with people having the opportunity to enjoy half-day, full-day and extended touring and loop options," he said.

"It also passes through a number of towns, increasing economic benefits to local communities."

He said the foundation had proved to be an important supporter of the trail with 342 members and numerous volunteers.

It is governed by a board of eight members including Ron Colman (Chair), Stuart Harrison (DEC representative) and community representatives Therese Jones, Leanne Robb, Alan Lofts, Paul Bevis, David Hey and Steve Reynolds.

Jim said community involvement in projects such as the Munda Biddi Trail was the backbone of conservation work and that collaboration such as this ensured WA continued to be at the forefront of eco-tourism.

"It also demonstrates the commitment DEC has in working with the community to achieve long-term sustainable outcomes," he said.

Guiding the future of Millstream



Pilbara Regional Manager Ian Walker at the launch of the draft management plan at Millstream-Chichester National Park. Photo – Denam Bennetts

DEC has prepared a draft management plan to guide the management of one of Western Australia's most significant Indigenous cultural and mythological sites – Millstream-Chichester National Park and Mungaroo Range Nature Reserve.

Environment Minister David Templeman released the draft management plan on 30 October in the Millstream-Chichester National Park.

He also officially opened the park council accommodation and the park's new camp kitchen – and cooked a few sausages on the barbecue!

DEC Planning Officer Clare Anthony said the draft management plan outlined strategies to protect the park and reserve's important cultural, natural, recreational economic and educational values.

"The Millstream aquifer supports ecologically significant and unique wetlands in the Millstream-Chichester National Park which provide important habitat for a diverse range of flora and fauna, many endemic to the Pilbara," she said.

"In conjunction with the Harding Dam, the aquifer also provides the public water supply for several Pilbara townships.

"In addition, construction of the Millstream Link highway, eventually connecting Karratha and Tom Price, will

pass through the park and will see visitation increase by more than 100 per cent.

"Therefore the plan proposes a range of new facilities and infrastructure required to provide safe visitor experiences that protect the sensitive environment."

Joint management with Indigenous people is a key component of the 10-year vision for the park and reserve and the Millstream Park Council has guided preparation of the draft management plan.

The council's 12 members represent the Yindjibarndi and Ngarluma community, whose country covers the planning area.

The draft management plan is the first of its kind, in that components are written in the language of the Yindjibarndi and Ngarluma people.

Clare acknowledged the hard work of park council members and the DEC planning team in the preparation of the draft plan.

She said public input was essential in finalising the plan and the public comment period would end on 11 January 2008.

Copies of the plan can be obtained from DEC's offices in Kensington, Karratha, Exmouth and Geraldton and from visitor centres at the Millstream-Chichester and Karjini national parks. Copies are also available from the department's NatureBase website at www.naturebase.net/haveyoursay.

Fish in focus in first Dampier survey

DEC has embarked on a major biological survey of the proposed Dampier Archipelago Marine Park.

DEC's Marine Science Group is monitoring targeted fin fish numbers and rock lobster density and coral cover in the area.

The research team went to Dampier in September to conduct the first survey and will conduct follow-up surveys in 2008. Logistical support was provided by DEC Pilbara region staff.

Research Scientist Shannon Armstrong said the surveys would provide baseline data for the monitoring of the proposed marine park.

"The baseline data collected during the survey will serve as a critical management function by helping us to detect trends in both fish and lobster populations over time," Shannon said.

"This will help us work out the effectiveness of the Dampier Archipelago Marine Park management in terms of protecting targeted species.

"For example, we'll be able to compare fish and lobster populations in sanctuary zones and non-sanctuary zones to determine the impact."

Shannon said the research team used diver-operated underwater video cameras to determine fish abundance during the September survey.

She said the follow-up surveys would use remote underwater video cameras to further examine the numbers and types of fish.

"The combination of survey techniques will give more comprehensive fishery-independent information on changes to fish species' abundance and assemblage over time," she said.

"In addition it is possible that some larger targeted fish species may avoid SCUBA divers but are likely to be successfully sampled using baited remote stereo-video."

Shannon said researchers from The University of Western Australia would help analyse data gleaned from the survey.

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Perth to host 2008 international conference

NEXT year's International Association for Impact Assessment (IAIA08) conference, being held in Perth, will focus on ways of thinking, acting and making decisions about development.

The IAIA08 conference will be held in May 2008, hosted by DEC in collaboration with the Federal Department of the Environment and Water Resources, Murdoch University, the Environment Institute of Australia and New Zealand and the Environmental Consultants Association.

DEC Assistant Director Environmental Impact Assessment Warren Tacey said impact assessment had developed as a tool for incorporating scientific and community knowledge into decision-making.

"Impact assessment complements biophysical sciences with an understanding of social and community processes," he said.

As part of the conference DEC Environmental Officer Melinda Macleod is organising technical tours to regional areas.

Melinda said the technical tours would offer an opportunity for conference delegates to experience impact assessment in action and

for Western Australia to showcase some of its internationally groundbreaking environmental initiatives.

The tours will cover mining, refining and rehabilitation; experience of Aboriginal culture; sustainable tourism; urban renewal; industrial synergies and sustainable fisheries.

"On a number of these tours, DEC staff from the regions will be helping out by providing their invaluable local insights to the international visitors," Melinda said.

"A tour at Rottnest Island will focus on the technical aspects of sustainability on a micro-scale, while a 10-day post-conference tour will be held in the beautiful Pilbara Region."

Participants must be pre-registered and pre-paid to participate in the technical visits. Family members of registered delegates are welcome to participate.

For more information visit www.iaia.org and click on the IAIA08 logo or contact Warren (6467 5170) or Melinda (6467 5427). If you're interested in submitting a paper or putting together a poster, have a look at the IAIA08 Preliminary Program on the IAIA website.

Diversity adds to forum success

THE Parks and Protected Areas Forum in Fremantle in September has been hailed an outstanding success.

About 300 people attended the three-day forum aimed at highlighting the importance of protected areas.

The forum was organised by the Conservation Commission, DEC, the Conservation Council, FACET, the Marine Parks and Reserves Authority, the World Commission on Protected Areas and the Parks Forum.

Conservation Commission Chairman John Bailey said the forum had achieved its goal of profiling the importance of protected areas and forming an action plan for the future.

He said a mix of community, science and government delegates attended the forum.

"We were aiming for an unusual and diverse mix of speakers and audience and I think people really enjoyed that," he said.

"It wasn't just about the science or just about policy – it also provided an opportunity for people to tell their own

By Samille Mitchell

stories often giving their first ever public speech. The forum was addressed by farmers, poets and photographers."

John said actions from the forum included a commitment to expanding the marine and terrestrial reserves system.

Plans were also afoot to make the forum an annual event, moving around the country from year to year.

John said the emphasis on protected areas served as a morale boost for the DEC staff who managed them.

"For example we had Paul Eagles from Canada who said the people working on the ground in the national parks here do a stunningly good job – it was a real pat on the back for the rangers," he said.

John marked an emotionally charged speech on the Kimberley by Malcolm Douglas as a forum highlight as well as the significant involvement by Aboriginal people.

from page 1

WA Environment Awards winners

Corporate Business Leading by Example

– Belmont Forum Shopping Centre: Earthbeat
Government Leading by Example – City of Joondalup: Cities for Climate Protection Program

Small Business Leading by Example

– Amcor Recycling WA: Recycle @ Work

Bush, Land and Waterways – Friends of Piesse Brook: Piesse Brook Rehabilitation and Restoration Project

Coastal, Marine and Estuarine – Rottnest Island Authority: Marine Management Strategy
Resources and Waste Management –

Midland Brick: Reuse, Recycle, Rebuild Project
Energy Efficiency – City of Joondalup: Eco-Business Program

Littering and Illegal Dumping Prevention

– Michael Filby

Community Achievement (Individual)

– Carolyn Lagrange: A Garden Path

Community Achievement (Group) – Men of the Trees: Carbon Neutral



Carbon Neutral CEO Leo Kerr (left) and General Manager Angela Tillier receive the top WA Environment Award from Environment Minister David Templeman. Photo – DEC

Awards aplenty

THE Swan River Trust's Healthy Rivers Program and DEC's Good Neighbour Policy have been recognised among the top public sector projects for the year at the Premier's Awards for Excellence in Public Sector Management.

The Healthy Rivers Program won the Lifestyle and Environment category of the awards while the Good Neighbour Policy was one of three finalists in the Regional Development category.

DEC has also been recognised at the 2007 WA Tourism Awards with the Bibbulmun Track and Yanchep National Park both receiving silver medals.

A great career from the start



Tony Start was presented with a John Gould print of a mistletoe bird on a mistletoe and is pictured here with his mother. Photo – Rhianna King

ONE of the department's most respected scientists, Tony Start, is retiring after 32 years, leaving many admiring colleagues and a number of important legacies.

Tony first joined the Fisheries and Wildlife Department in 1975 but moved to the National Parks Board within a year as its first professional ecologist. He then went on to assume a number of scientific and managerial positions around Western Australia.

Tony was born in Kenya and from an early age preferred examining flora and catching bats to activities such as football, favoured by his peers.

It was during this time that he developed a lifelong friendship with DEC's Andy Williams, who described their upbringing as 'idyllic' for budding naturalists.

"My father was the ornithologist at the National Museum in Kenya and took Tony under his wing," Andy said.

"This really sowed the seeds for Tony's career in nature conservation and as a generous encourager of others."

Tony said he was proud he was able to nurture and support the people he worked with, particularly during his roles in regional WA including being Regional Superintendent from 1978 until 1985 when he had responsibility for the area from Cape Range to Mirima National Park – about half the State.

DEC Senior Principal Research Scientist Keith Morris, who worked with Tony in Karratha, described his willingness to do any job himself as one of his great strengths.

By Rhianna King

"He was an incredibly good manager, who was known to drive around the Pilbara like the wind," Keith said.

"He was also a well-respected member of the Karratha community and played a crucial role in setting up the Pilbara Herbarium and developed the Aboriginal ranger training program at Millstream-Chichester National Park."

During his career Tony also achieved significant results in bushfire management in WA by influencing important changes to legislation. He improved the plight of the pebble mound mouse within the mining industry and conducted important research into tropical savannas.

Tony also played a role in the rediscovery of Gilbert's potoroos at Two Peoples Bay Nature Reserve. He travelled to the reserve in search of the presumed extinct mammals in 1977 and, while the expedition did not uncover any potoroos, it did uncover a population of quokkas. Tony recommended the site to PhD student Elizabeth Sinclair who was in search of quokkas in 1994. It was on this trip that she rediscovered a population of potoroos.

Tony looks forward to catching up on the backlog of work he's accumulated and concentrating on his interest in mistletoes. He will be based at the WA Herbarium and Woodvale for one day a week and can be contacted by email (tony.start@dec.wa.gov.au).

Promotion on the way to work...

YOU may find Mike Pengelly's face a familiar one.

The DEC Environmental Officer and recent university graduate featured in the 'Reach your potential' advertising campaign run by Edith Cowan University (ECU).

Mike said that former careers ranging from retail management to being a park ranger at Lake Leschenaultia contributed to his decision to return to study as a mature-aged student.

"Full-time study was a challenge because it required balancing the demands of uni, family life and part time work," he said.

"But as a parent your perception shifts – I felt the need to be more motivated about what I did each day at work and to feel I was making a positive difference for the future.

"My lifelong passion for the environment and a growing concern for its conservation made Environmental Science at ECU an easy choice."

Mike's studies led to his employment in February 2007 by DEC's Environmental Impact Assessment Division (EIA) within the

By Joanna Moore

Planning and Infrastructure Branch.

Its role is to provide support to the Environmental Protection Authority's assessment of major planning, infrastructure, mining and industrial development proposals.

As an environmental officer, Mike assesses planning and infrastructure proposals as they are submitted by the development industry and local and State Government agencies. He describes his position as both diverse and challenging.

"Working in this area is a dynamic experience and one which provides the opportunity to gain exposure to many different environmental issues and, therefore, DEC branches," he said.

"The State is currently experiencing a period of 'once in a generation' growth.

"The challenge of this 'boom' for staff at DEC, and the EIA Division in particular, is how to respond to this pressure to ensure that wherever possible the natural environment is protected."



Mike Pengelly at Hovea Halls in John Forrest National Park. Photo courtesy of Edith Cowan University.

Shoalwater Islands management plan released

THE final management plan for the Shoalwater Islands Marine Park has been released.

The plan outlines strategies to manage the 6,600ha marine park adjacent to the City of Rockingham by providing a framework to conserve and maintain its important ecological values, while providing for sustainable recreational and commercial activities.

DEC Swan Coastal District Nature Conservation Officer John Edwards said the marine park contained a diverse range of habitats such as seagrass meadows, sandy beaches and rocky shorelines, subtidal and intertidal reefs and the deep silty basin of Warnbro Sound.

"Protection of these habitats is important. The Shoalwater Islands Marine Park supports the largest breeding colony of little penguins in WA as well as other marine species including bottlenose dolphins, Australian

sea lions and many sea and shorebirds," he said.

The park's waters support a range of commercial fisheries and recreational activities such as snorkelling, scuba diving, fishing, windsurfing, surfing, kayaking and nature appreciation.

"About 6 per cent of the marine park is included in no-take sanctuary zones located at Seal Island, Second Rock and Becher Point. A further 9 per cent is set aside in highly protected special purpose zones in Shoalwater Bay and around the northern portion of Murray Reef," John said.

He said the final management plan was the culmination of many years of hard work by stakeholders.

"A crucial aspect has been the involvement of the community in the development of the plan through the release of an earlier draft plan, community meetings, workshops and a community-based focus group."



Environment Minister David Templeman at the launch of the plan.
Photo - Carolyn Thomson-Dans

Air quality – watching from above



Air Quality Management Branch Environmental Officer Karl Svatos (left) and Wellington District Fire Coordinator Peter Gibson donning harnesses to climb the tower. Photo - Farah Adeb

By Candice Kocken, Andrew Black and Olga Prokopenko

In a DEC first, photographs have been used to get an understanding of smoke accumulation from wood heater use in Collie.

A digital camera took 81 photos at 10-minute intervals between sunrise and sunset from the 40-metre Mungallup fire tower, which overlooks Collie from the south.

More than nine in 10 Collie homes have wood-fired heaters that are used every day during winter. Each wood heater uses an average of 3.31 tonnes of wood a year.

Smoke produced from wood heaters can adversely affect air quality by contributing to the level of particles in the air. Particles that are 2.5 micrometres (a micrometre is one millionth of a metre) or smaller can be inhaled and lead to lung damage.

DEC measures the particle content in ambient air with its monitoring equipment but has begun to combine this with photographs.

The images taken at Collie were interpreted in conjunction with simultaneous 10-minute particulate measurements from Roche Park in Collie and meteorological data collected at Collie East and documented for atmospheric colour, quality, texture and contrast.

DEC Manager of Regional Management Strategies Farah Adeb said Collie had a complex terrain and meteorology.

"Time-lapse photography, combined with quantitative measurement of particles, provides us with a better chance for documenting dynamic visibility patterns in these conditions. It is certainly an option worth considering," she said.

Thanks go to the Wellington DEC office, especially Drew Griffiths, Frank Colyer and George Bradshaw, for their help and participation in the photographic monitoring.

Urgent recovery plans to protect rare plant species

URGENT interim recovery plans have been prepared for seven critically endangered Western Australian plant species as part of the 2006-2007 Saving our Species initiative.

These include three from DEC's Great Southern District, one from each of the Moora, Yilgarn and Avon/Mortlock districts and one from the South Coast Region.

DEC Threatened Flora Coordinator Andrew Brown said the three species from the Great Southern District – the ballerina orchid, William's spider orchid and Aldersyde dryandra – were extremely rare, with few known populations existing in the wild.

"The ballerina orchid (*Caladenia melanema*) is known from just one wild population in the Shire of Kent, which has only 33 mature plants," he said.

The Koobabbie poverty bush (*Eremophila koobabbiensis*) is also known from just one population, which is in the Shire of Coorow in the Moora District.

"This species currently has only four mature plants existing in the wild," Andrew said.

The blue tinsel lily (*Calectasia cyanea*) is known from a single population near Albany which has less than 100 mature plants and the woolly lysiosepalum (*Lysiosepalum abollatum*) is also known from just one population, which is near Wongan Hills and consists of 129 mature plants.

The robust cone-flower (*Isopogon robustus*) population in the Yilgarn District is also the only one known to exist and has just 203 mature plants.

"Immediate threats to these species include weed invasion, grazing by rabbits and kangaroos, inappropriate fire regimes and road and firebreak maintenance," Andrew said.

"We aim to improve their conservation status by carrying out vital on-ground recovery actions."

The interim recovery plans that have been prepared detail actions for five years.

"The plans will also include historical background information, taxonomy, location and population information," Andrew said.

Reducing our environmental footprint



National Park Ranger John Jackway (left) and conservation employees Chris Wait, Steve Luff and Peter Beebe with the new solar panels. Photo - Jeff Daubney

DEC has installed a solar power system and rainwater tanks at its Northcliffe work centre as part of its efforts to reduce environmental impacts.

The two 135,000-litre rainwater tanks will collect water for departmental use at the Northcliffe work centre including supplies for the office gardens, fire fighting trucks and a wash-down bay. The rainwater collection system cost about \$17,400.

The solar power system, with panels mounted on the Northcliffe office roof, should generate enough power to run the Northcliffe work centre.

Any surplus energy will be fed back into the Synergy power supply grid and will be credited to DEC. It is anticipated that this will pay for installation costs over the life of the system and reduce carbon emissions.

By John Gillard

The cost of the solar power system was about \$22,000 before rebates with a net cost of about \$11,000.

Project leader Sid Sepkus said the initiative was a great opportunity to promote sustainable energy and water use across the region with these types of systems readily available to the community.

"When we first turned the power on, with normal energy use from lights and computers, the power metre was winding backwards so it looks as if we might be making a credit," he said.

For more information please contact Sid or Jeff Daubney at the DEC office in Northcliffe on 9776 7095.