

# CALM NEWS

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DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

MAY-JUNE 1996



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## Western Shield: the way to recovery



Children from East Fremantle Primary School and Helena College, Darlington, helped Environment Minister Peter Foss release woylies into The Hills Forest at Mundaring to mark the launch of Western Shield. Photo by Ross Swansborough

A BREAKTHROUGH in the recovery of an endangered native mammal has opened the way for CALM to implement the biggest wildlife conservation program ever undertaken in Australia.

The initiative—*Western Shield*—will see a five-fold increase to almost 5 million hectares in the area baited to control introduced predators such as the European fox and feral cat. These animals have been largely responsible for the extinction of 10 species of native mammals, and have driven a further 31 species to the brink.

Environment Minister Peter Foss said the program would build on a dramatic recovery of the woylie.

CALM's feral predator control in the past 10 years has seen natural and re-established populations of woylies increase so significantly that the Minister accepted a recommendation of the Woylie Recovery Team and the Threatened Fauna Scientific Advisory Committee to take the species off the threatened list under the WA Wildlife Conservation Act.

The species is now also listed formally as 'Conservation Dependent' under World Conservation Union guidelines.

### Biggest weapon

At the launch of *Western Shield* in The Hills Forest, Mundaring, Mr Foss said feral predator control was the single biggest weapon in the armoury to bring native wildlife back from the brink of extinction.

"Existing fox-baiting programs, such as *Operation Foxglove* in the northern jarrah forest between Julimar and Collie, and target areas such as the Perup Nature Reserve and Kingston forest block near Manjimup, and Dryandra Woodland near Narrogin, are yielding outstanding results," he said.

*Western Shield* will not only play a vital role in conserving Western Australia's biological diversity, it will be a major key in the development of the State's nature-based tourism industry.

### Tourism benefits

By controlling feral predators and re-establishing colonies of these species in their former natural range, visitors to WA will be able to see wild populations of native animals such as numbats, rufous hare wallabies, banded hare wallabies, hoodies and malleefowl.

*Western Shield* will integrate and co-ordinate existing feral predator operations such as *Foxglove*, and *Project Eden* on the Peron Peninsula in Shark Bay. It will also establish other priority areas for fox and feral cat control.

These include Cape Arid and Cape Le Grande near Esperance; Ravensthorpe Range, Stirling Range, Two Peoples Bay, Fitzgerald River, Waychincup and Lake Magenta along the South Coast; D'Entrecasteaux, Walpole-Nornalup and the Valley of the Giants near Walpole; the sunklunds between Nannup and Augusta-Busselton; the eastern jarrah and wandoo forest between Collie and Walpole; Kalbarri; and many smaller reserves throughout the wheatbelt.

### Extending target areas

Other target areas are CALM-managed pastoral lands in the Goldfields, Cape Range and the Montebello Islands in the Pilbara.

The aim is to begin expanding the area baited for foxes in the South West now, and to expand into the more arid areas when further research has been carried out into feral cats.

CALM is stepping up its \$120,000 commitment to cat research by investing a further \$240,000 in this work. One priority is to find better bait mediums that will result in a higher uptake of baits by cats.

As well, the Australian Nature Conservation Agency is helping fund research and implementing recovery plans for many species that will benefit from the new fox and feral cat control initiative.

Another aim of *Western Shield* is to protect fauna that

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## Children's activities to conserve wildlife

PRIMARY school children are being encouraged to help conserve wildlife through an activities program focusing on Western Australia's threatened species.

The *Western Shield Action Pack* has been prepared by CALM to help stimulate a greater public awareness of the State's distinctive fauna, and to encourage positive community attitudes towards their conservation and pro-

tection. Environment Minister Peter Foss said WA shared the worst record in the world for mammal extinctions.

"Already 10 species have become extinct and a further 31 are on the brink," he said.

"We have an obligation to our children, and their children, to ensure that no more species become extinct because of human activity."

Mr Foss said the action

pack was an extension of the *Western Shield* wildlife recovery initiative being implemented this year. *Western Shield*—Australia's biggest wildlife conservation program—aims to control introduced predators such as foxes and feral cats which have been key factors in pushing species of small native animals to the edge of extinction.

The program involves baiting almost five million hectares of the State's con-

servation estate using a naturally-occurring toxin that is fatal to foxes and cats, but to which native species have developed a high tolerance.

Mr Foss said he was concerned that most people in WA—particularly children—were more aware of African or American wildlife than our own. Yet Western Australia's native wildlife was not only among the most biologically diverse on earth, many of our spe-

cies were to be found nowhere else.

"The *Western Shield Action Pack* has been produced because, without doubt, conservation efforts can be greatly enhanced if people understand the nature of our wildlife, including the partnerships—or synergies—our flora and fauna have developed," Mr Foss said.

The pack has been designed for upper primary

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ONE of the good things about CALM is its diversity—in both functions and geography.

But that also causes some management problems. For example, it is hard to keep up with all that is going on.

I get frustrated that I am unable to ensure that all groups and individuals are recognised for their achievements.

That is why CALM NEWS is so important—Verna Costello and all her regular contributors are doing an excellent job in making sure that everybody knows what is going on throughout CALM.

This bumper issue of CALM NEWS is a good snapshot of what people in CALM are achieving throughout the State.

While I don't believe that we should dwell on our achievements, I think it is important to sit back occasionally and think about where we were 10 years ago and where we are now.

Despite the continual whingeing and knocking by a faction of the conservation movement, we are held up as the model for land management in Australia.

This is illustrated by the stream of requests I receive from other State agencies and private companies to visit CALM to see how it is being done.

I am very conscious of the fact that the things we have achieved have been the result of hard work and have resulted in a lot of stress on the organisation and individuals.

Hopefully, we are about to complete—it has taken three years—negotiations on enterprise agreement conditions.

When I met with the Civil Service Association recently I had no difficulty in saying that the current package that is being offered does not reward the extraordinary efforts that the vast majority of people in CALM have been making to this organisation and the State.

But while I believe that in the next round of negotiations we will be in a much better position to quantify productivity gains, I don't believe that increasing base salary levels alone will ever give sufficient rewards for people who work in this organisation.

I believe the important reward that we give in CALM is to have an organisation that provides interesting and secure jobs that have a guaranteed career range.

The increase in take home pay that comes from moving three or four levels is vastly greater than the two to three percentage points we argue about when negotiating base pay levels.

I am very keen to explore ways that we can make CALM the most rewarding organisation to work for in Australia.

We are in the process of establishing a 'reference group' in the department to act as a funnel for your ideas on all human resource issues, including reward systems.

I also hope to be able to visit most parts of the department over the next two months to discuss these issues with you and you can always communicate with me by telephone or fax.

Dr Syd Shea, Executive Director

## Staff exchange trial a success

by Cliff Gillam

IN 1995, CALM and the South Australian Department of Environment and Natural Resources (DENR) agreed to trial a one-year staff exchange program.

The trial program has seen CALM Dwellingup ranger John Hanel take up a position as a ranger in the South Australian Parks system, while Tim Fuhlbohm from South Australia, has filled the Lane Poole Reserve ranger position since October.

The respective agencies, and the 'exchangees,' are agreed that even at this early stage of the trial there are real benefits in the program, and arrangements are already under way for another ranger exchange to be undertaken in 1996-1997.

From the outset, DENR has been keen to develop the program's potential for exchange opportunities for non-ranger staff.

They have called for expressions of interest in exchange from all staff and have compiled a list of some 30 individuals across a wide range of occupations who are interested in travelling to WA on an exchange basis some time in 1997.

The occupations range from administrative, clerical, maintenance, scientific, cartographic, technical and information management jobs to

cave guides.

The program is 'cost neutral,' with salaries costs being met, for their respective employees, by each agency.

The normal accruals in respect of annual leave, sick leave, and so on continue to apply during the exchange period.

Removal costs are met by the staff concerned. Where accommodation is not a feature of the job (as with rangers), staff involved in exchange will need to make appropriate arrangements.

Such arrangements may well be made with their counterpart involved in the exchange, but will remain private arrangements.

The agencies will try to 'match' exchange staff in ways that take into account these issues, but do not contribute to accommodation expenses.

CALM staff interested in an exchange in 1997 should write to the department's Human Resources Branch.

Matches with interested counterparts in South Australia will be sought, and, subject to approval by the relevant manager or director, they will then be put in direct contact with each other to discuss the ramifications of an exchange.



CALM Mundaring nature conservation officer John Carter (left) and Darling Range MLA John Day take a closer look at a woylie during the launch of Western Shield. Photo by Ross Swansborough

## Western Shield: the way to recovery

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may be at threat when the rabbit calicivirus disease spreads—or is released formally—into WA and predators turn to native animals to fill the food gap.

CALM will also begin a major campaign to involve landowners, through Land

Conservation District Committees, in feral predator programs to extend the total area over which these feral predators are controlled.

"Western Shield is not a complete answer in itself to foxes and feral cats—rather, it can be likened to estab-

lishing a beachhead in the lead up to the main event—the introduction of biological controls. However, such controls are unlikely to be available for at least another decade," Mr Foss said. "We can't wait 10 years—too many native species on the brink now."

## Volunteers check in their 50,000th plant

CALM WA Herbarium volunteer and amateur botanist, 86 year-old Barbara Evans was given the honour recently of preparing the 50,000th specimen mounted by volunteers—a water plant *Nymphoides quadriloba*.

The plant was collected by Andrew Mitchell at Kalumburu Mission, and has brought the total number of specimens at the herbarium to 371, 203, all of which have been mounted on cards, labelled, data-based and incorporated into the collection.

At a celebratory morning tea, Herbarium Director, Dr Neville Marchant congratulated the volunteers, who had drastically reduced the backlog of specimens waiting for processing.

The herbarium is now almost up-to-date with processing material so that information about the flora is readily available. Helping the volunteers



Cutting the celebratory cake is Gwen Abbott, with the encouragement of fellow volunteers Harry Bennett, Nora Best and Barbara Evans. Behind them (left to right) are visiting volunteer Robin Campbell, WA Herbarium senior WA Herbarium director Neville Marchant, volunteers Kim Macey, and Kim Spence, visiting volunteer Mary Hancock, CALM technical officer Phil Spencer and volunteer Brian Best. Photo by Verna Costello

celebrate were visitors Robin Campbell from the Corrigin Land Conservation District Committee and Mary Hancock, a volunteer

from the New South Wales National Herbarium, who was using the Herbarium to identify specimens they had recently collected.

## Children's conservation activities

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teachers and students, but can be adapted for other year levels. It covers four or more lessons in the classroom and includes suggestions for extension activities.

Mr Foss said the pack linked with the primary school curriculum subjects, Social Studies, Science, Mathematics and Language and supports the aims of the Student Outcome Statements.

'First Steps' and 'Stepping Out' concepts had also been used within a framework of an integrated curriculum approach that encouraged collaborative group work by students.

The pack includes teacher's notes, resource sheets, activity sheets and a list of references along with the Western Shield poster and articles on threatened species from LANDSCOPE Magazine.

## CALM Classified

THIS column is divided into sections dealing with 'for hire', 'for sale', 'surplus equipment', 'swap', or 'wanted'. If you have any equipment or requirement that you wish to advertise through this service, please send or fax typewritten details to: The Editor, CALM NEWS, Corporate Relations Division

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# Ed's learning curve not entirely one sided

NINE hundred metres isn't far in the overall scheme of things—but it is a distance that will long remain in Ed Bartosiak's mind.

Ed has just finished a six months stint with CALM's Mundaring District on secondment from the WA Fire and Rescue Service (FRS) as part of a partnering charter to strengthen relationships between the two fire organisations.

The 900 metres was the length of a hose run the Mundaring crew carried out during a wildfire in the Avon Valley National Park earlier this year.

"The way the crews worked that night was incredible," Ed said. "The country was so steep, you couldn't walk it. You literally had to climb it."

But teaming up with CALM crews while they put the 'wet stuff on the red stuff' was only a small part of Ed's induction into CALM's fire management.

The aim of the secondment was to enhance teamwork between CALM and Fire and Rescue crews so that each had a better understanding of the other's role.

This understanding—part of a mutual aid agreement—is particularly crucial in the Mundaring area and other parts of the 'urban-rural interface' along the Darling Scarp.

The scarp and its suburbs—some set in picturesque leafy settings—have long been regarded as a fire disaster just waiting to happen. It's not a matter of if, but when.

Recently, CALM, the Fire and Rescue Service, the Bush Fires Board and local councils agreed on a 'three agency response zone' along the scarp. This means that in the event of a wildfire, there is an automatic turnout by units from the three agencies.

Consequently, CALM and the Fire and Rescue Service will be working much closer together than in the past.

Ed's experiences in Mundaring are now being passed back through the Fire and Rescue Services and in his new role as a training officer at Belmont.

One big aspect of CALM's fire operations he has taken on board is the use of the Incident Command System at wildfires.

The FRS only recently adopted the system which has been part of CALM's and the volunteer bush fire brigades' fire suppression operations for several years.

At a recent 'round the table' debrief with CALM Mundaring staff including district manager Peter Keppel, fire co-ordinators Ross Mead and Bruce Telfer

and overseer Tom Nevin, Ed said his time with CALM was a very positive experience that would have benefits for both organisations.

"One of the things that I noticed on reviewing the previous six months was that I picked up a lot more about CALM's operations than I expected," Ed said.

"For example, aspects such as water capacities, vehicle weight distribution, and even tyre sizes and pressures, may not appear important, but when it comes down to your effectiveness at the fireface, they can mean the difference between getting the job done or getting bogged.

"The knowledge gained on fuel hazard reduction burns and prescriptions is invaluable in terms of understanding fire behaviour and how fires react in different conditions.

"From a personal point of view, I'm even looking at the ecology of our plants in a different light."

Ed's experience wasn't all 'one-way' and CALM picked up tips which helped the crews in several fires.

Peter, Ross, Bruce and Tom said they now had a much better understanding of the way the FRS worked, and foresaw several changes they would be implementing in Mundaring district.

"We are going to have to become more aggressive in



CALM Mundaring staff recently farewelled Ed Bartosiak after a six-months secondment to the district from the Fire and Rescue Service. Ed presented the district with a memento in appreciation of his time with the department. CALM staff pictured are, standing, Bruce Telfer, Ed, David Atkins, seated, Les Doust, Nibs Morganti and James Gallagher.

our response to fires in the Hills urban areas," Peter said.

"Also, the volunteer brigades, which are such a big help to us, are now on a centralised callout system through kocal Aboriginal radio station 6AR. This means they could be called

to a fire on CALM land even before we are notified.

"So we have to look at our arrangements and systems for call outs."

Bruce said a visit to 6AR had given him a much greater understanding of the FRS operations system.

"As well, Ed passed on some valuable information on tackling structural fires.

"This increased the competence and confidence of our crews, particularly when they were called to the fire in Chidlow in February, when the crews managed to save several houses."

Peter commended Ed for his commitment—particularly for his willingness to make himself available to fit into a different organisation.

"There's no doubt we now have a much better appreciation of each other's activities," Peter said.

## Volunteers targeting the typha

Friends of Forrestdale Lake volunteers were enlisted recently by CALM to undertake a detailed survey and map of the weeds at Forrestdale Lake Nature Reserve, so that Perth District staff could carry out a weed-control program targeting priority weed species.

Reserves officer Rod Martyn said that the Friends of Forrestdale did a great job, mapping species, their numbers and locations.

"This was a major, labour-intensive task and one which the district would have had great difficulty in completing without additional staff," Rod said.

"Perth District has now finished the first phase of a three-to-five-year weed-control program, involving removal and treatment of major woody weed species."

Further control of other species, including bridal creeper and arum lily, will be undertaken in the coming winter.

The Friends will continue to help CALM, by conducting an annual weed count and producing a corresponding distribution map to discover the level of success achieved to date, and to identify species and areas needing further control.

CALM will use this information as a basis for future weed control and follow-up programs.

Forrestdale Lake has been dry for several months this summer, enabling the tractor-slashing of typha

beds to restrict further growth across the lake, and to cut firebreaks as required under the fire management plan for the reserve.

The Friends of Forrestdale Lake have provided CALM

with invaluable help in the management of the reserve, including slashing along fence lines to protect fences from fire, planning and conducting revegetation of degraded areas, actively seek-

ing greater protection of the reserve, and seeking Federal and other grants to cover expenses such as those incurred in building the boardwalk, signage, and brochures.



President of the Friends of Forrestdale Lake Rod Giblett (left) and colleague David James with CALM forest worker Andy Lange at Forrestdale Lake. Here, Andy is about to cut a swathe through a thick growth of typha weed with a slasher attached to the back of the tractor. Photo by Verna Costello



Peng Soong prepares for a busy day as new manager of Information Services Section. Photo by Verna Costello

## New section manager

PENG Soong has been appointed manager of the Information Services Section of the Information Management Branch.

She is responsible to acting branch manager Colin Pearce for the management of CALM's information technology facilities.

Peng sees her main challenge as providing the effective and efficient delivery of information services to support the corporate objectives of CALM by delivering the right information to the right people at the right time.

"I believe that if I do this, staff can perform more effectively, making informed

decisions that will foster the achievement of organisational goals," she said.

"I need to find out what services are needed, so I will be conducting surveys to find out what they are and how Information Management Branch can better deliver them.

Peng says she has made a commitment to providing quality customer services and the delivery of top quality information.

She comes to CALM after eight years with the Department of Land Administration (DOLA), where she was extensively involved in strategic information technology

planning, the management of Information Systems Service Delivery projects, and the implementation of client/server technology.

Gardening and listening to classical music are Peng's favourite leisure pursuits.

She is married to David, an engineer, and they have two children—a son, Wei, who is a university student, and a daughter, Ming, who is a high school student.

We wish Peng a happy, challenging and satisfying sojourn with CALM, and look forward to learning about her and her section's successes in future issues of CALM NEWS.

# DEP staff join CALM's Marine Conservation Branch

**WELCOME** aboard to Chris Simpson and Nick D'Adamo, who have been transferred from the Department of Environmental Protection (DEP), to join CALM's Marine Conservation Branch.

They are located in CALM's new premises at 47 Henry Street, Fremantle.\*

Expansion of the Marine Branch followed a decision by the State Government to establish a system of marine conservation reserves around Western Australia's 14,000-kilometre coastline.

The Wilson Report (headed by Dr Barry Wilson and involving many agencies, including CALM) has listed nearly seventy areas around the coast that are worthy of consideration as marine reserves, from the tropical waters of the Kimberleys in the north to the colder waters of the south coast.

## New statutory authority

The State government is about to set up a statutory Marine Parks and Reserves Authority (MPRA) under the CALM Act, as a vesting and advisory body for marine conservation reserves.

Management responsibility will rest with CALM, through its regional and district network.

The Marine Branch is part of the Nature Conservation Division, under the direction of Keiran McNamara.

It will co-ordinate the establishment of marine reserves, and (with the regions) improve the scientific basis for management of existing marine reserves.

The Marine Conservation Branch will provide technical advice to the MPRA and to others within CALM, as well as co-ordinating CALM's marine activities.

## New manager

Chris Simpson is the new Branch Manager. His qualifications are B.App.Sc.(Biol); Grad.Dip.Nat.Res. (Marine); PhD (Marine ecology). He was Manager of the Marine Impacts Branch at DEP.

He has had 18 years' experience working throughout WA's marine environment.

His specialist knowledge includes: coral reef ecology, and extensive experience of WA, reefs including the Pilbara, Ningaloo Reef and the Abrolhos Island areas; strategic planning in the marine environment; effects of dredging on coral reefs; effect of natural disturbances on WA coral reefs; impacts of oil industry on WA tropical marine environments; seagrass ecology; the effects of nutrient enrichment in temperate marine systems of WA; marine habitat mapping; statistics and experimental design; underwater photography; design of monitoring programs; project management of multi-disciplinary marine studies (study leader for Albany Harbours Environmental Study [1988-89] and Southern Metropolitan Coastal Waters Study [1991-94]).

Nick D'Adamo is an oceanographer, with 13 years' experience. He studied Civil Engineering at the University of Western Australia, specialising in oceanography through to a Masters and a PhD through

the University of Canterbury in New Zealand).

Past studies include: flushing of the Yunderup and Murray Lakes canal developments; water quality studies of the eutrophic Murray River Estuary (Peel Harvey system) to investigate physical and water quality factors relating to fish deaths in the river; field and numerical modelling of the hydrodynamics of the Venice Lagoon and adjacent rivers, Italy to assist in decision-making to address water quality problems in the lagoon, and the flooding of the City of Venice; field studies of water circulation and mixing of pollutants in Lake Geneva, Switzerland; studies of mixing in the Adriatic Sea and in several northern Italian lakes; field studies of water circulation and mixing in the Albany Harbours and adjacent ocean waters, field studies of the water circulation and mixing in Perth's coastal waters (Yanchep-Mandurah-continental slope) in the DEP's *Southern Metropolitan Coastal Waters Study (1991-1994)*.

It is essential to understand and predict the movement and mixing of water and contained substances, such as larvae, contaminants, and sediments, between areas of interest in marine reserves. Nick, therefore, will be involved, among other duties, in the oceanographic aspects of marine reserve boundary selection, zoning, implementation and monitoring.

The Marine Conservation Branch also includes CALM staff members, Greg Pobar, (who has returned from his



Marine Conservation Branch manager Chris Simpson, right, with oceanographer Nick D'Adamo. Photo by Verna Costello

stint as Rottneest Island Environmental Manager), Jeremy Colman, Sue Osborne and Stella King,

Two other marine scientists, Jennie Cary and Jim Burt, have also been trans-

ferred from DEP to CALM. They are currently on leave, and will be joining the Branch at a later date.

Profiles of Jennie and Jim will appear in a later edition of CALM NEWS.

\* Marine Conservation Branch shares CALM's Henry Street, Fremantle premises with the Aboriginal Tourism Unit and the Swan Region Marine Operations Group.

# A culture-shocked Seamus returns from Solomons



Manager of Plantations Group Business Unit Seamus Mulholland. Photo by Penny Walsh

**SEAMUS Mulholland has returned to CALM after almost two years on secondment to the Ministry of Forests, Environment and Conservation in the Solomon Islands.**

Seamus is now Manager of the Plantations Group Business Unit within the Forest Resources Division.

While in the Solomons, he worked for a company contracted by the Australian Government's international development agency (AusAID).

Seamus was the Commercial Unit Manager of the Solomon Islands Timber Control Unit Project.

His brief—to develop the commercial and marketing skills of key people in the local forestry division in order to improve the economic benefits from logging.

One important aspect of this was to exert some control on the transfer pricing of log exports from the country.

"Log exports represent more than 50 per cent of the Solomon Islands' export," Seamus said.

"They underpin the economy, so the current unsustainable management of the industry has serious implications for the islands both financially and socially."

The first hurdle Seamus

and his wife Anthea had to get over, however, was culture shock.

"Although not far away in global terms, the Solomons are a world away in facility and infrastructure terms," he said.

## Few luxuries

"For a start, there were none of the usual luxuries like TV, safe drinking water and reliable power.

"We struggled to learn pidgin English so we could communicate with the locals, and we often became lost because the streets don't have names.

"The Solomons' climate also took some getting used to.

"The temperature rarely dips below 25 degrees, and there is a lot of rain—anything from two to five metres per year depending on where you live.

"But there was a great feeling of safety about the place, especially in the villages, and the people were easy going and friendly.

"About 90 per cent still live a subsistence lifestyle."

Seamus found that the locals were also very affectionate, and it was not uncommon to see men walking down the street holding hands or arm in arm.

"It's pretty strange the first time someone shakes

your hand and then doesn't let go of it," he said.

"Things are changing, however, because of the large amounts of foreign logging money coming in."

Seamus said there was a great deal of social dislocation, and the young people were no longer satisfied with what they saw as a primitive existence.

"Disputes over land ownership are rife.

"In the past, 'tribal' ownership required few boundaries and it was not uncommon for more than one group to have 'ownership' of the same land.

"Now, the profit motive has entered the equation, and the villagers realise that owning land with timber on it is valuable to them."

He said the islands needed better mechanisms to define exactly who owned what, and some systems to help work through issues as they arose.

"The current situation is confused and frustratingly slow.

"You quickly realise that you need to adjust your pace and work expectation to that of the islands.

"If you can achieve even the obvious, you've had a big win.

"That is not a criticism of the people, it is just a fact of life in the Solomons."

While he was living among the people of the Solomons, Seamus was dealing with the representatives of various foreign logging companies and international log buyers.

"I certainly developed my cross-cultural abilities; Going in to bat for the Solomon Islands in the cut-throat world of international log marketing was challenging at times," he said.

Unfortunately, his efforts were brought to an abrupt halt when the Australian Government decided to get out of the islands due to a lack of commitment from the Solomon Islands government to sustainable development.

"It was disappointing, but completely understandable," Seamus said.

"Some of the people in the industry are genuine about making Solomon Islands forestry sustainable, but a lot of others are in it for the quick buck."

## No regrets

After almost two years, and two bouts of malaria, Seamus says he wouldn't trade his time in the islands for anything.

"It really is a beautiful place, the ocean is clear and flat, the diving is fantastic and the people are happy and friendly."

# Seasoned seasonals farewelled



Eager to return to their farewell barbecue are: Top, left to right, Steve Martanovic, Shane Palmer, Mark Norton and Barry Curnuk; middle row, Andrew Hookings and Shaun Attwood; front row, standing, Darren McAullay, Allan Wilson, Alan Jenkins, overseer Sam Greer, job officer-in-charge Brian Inglis; front, Mark Nannup and Chris Sousa. Photo by Verna Costello



Recipients of certificates were, left to right, Shaun Attwood, 'B' class licence; Andrew Hookings, 'B' class licence; Darren McAullay, 'B' class licence; Alan Jenkins, Australian standard - loader operator accreditation; Chris Sousa, 'B' class licence. Photo by Verna Costello

by Brian Inglis

**CALM's Perth District staff farewelled eleven seasonal employees recently, with a barbecue at the department's Wanneroo premises.**

Certificates were also presented to the five members of the team pictured at left, acknowledging the valuable contribution made by these employees in bolstering fire crew numbers at Perth District during the 1995-1996 fire season.

Three members of the team had completed an earlier fire season with Perth District, and the remainder had followed on from a New Work Opportunities Program run from Yanchep National Park.

When not involved in fire control operations, other district duties were carried out.

These included large-scale pine pruning, furrow lining and ploughing in the Pinjar Plantation, nature conservation and maintenance projects on District reserves, and general recreational facilities and park maintenance at Yanchep National Park.

The team also had training in heavy and light vehicle driving, map reading, fire suppression activities, fire-hose laying, and fire equipment maintenance.

The team performed to a high standard throughout the course of their employment.

Because of this, and the fact that there wasn't a single incident of lost time through accident, it is hoped that CALM Wanneroo can bring back the same faces next summer.

## Great response to Lunchtime Seminar Survey

**NEARLY 200 staff responded to a recent survey about lunchtime seminars, including possible topics and venues.**

The survey was prompted by a suggestion that came from one of last year's CALM leadership courses - that lunchtime seminars addressing important CALM issues would provide a valuable forum for open and constructive discussion.

The recent survey was designed to identify the issues that would be of most interest to staff, and the most

convenient time and location for the seminars.

"We were pleasantly surprised with the response, and really appreciate the time people took to fill out their forms," said Luisa Liddicoat of Park Policy and Tourism Branch.

About 72 per cent of respondents said they were interested in learning more about nature conservation issues such as Project Eden, Lake Toolibin, Western Shield, flora and fauna surveys, endangered species programs, wildlife research

projects, feral animal control, and so on.

Topics relating to recreation and tourism were also of interest, with 67 per cent of respondents indicating nature-based tourism, recreation projects, commercial operators, the user-pays concept, proposed products and services, and the Tree Top Walk.

A further 54 per cent nominated forest management issues as possible seminar topics. These included the concept of sustainable yield, the science behind

logging, the future of forestry in WA, plantations, tree farms, and old timber regrowth.

"There was a very wide variety of topics raised - everything from departmental funding and budgets through to fire management, and the implications of native title. I hope this level of interest means we will get a big turn out when the seminar series kicks off at Como on May 29," Luisa said.

Seminar One will be on "Current Issues in Nature

Conservation", featuring CALM Director of Nature Conservation, Keiran McNamara. It will be held at the Como Training Centre from 12.30 to 1.00pm, and a speaker's kit with notes and visual aids will be produced for CALM offices in regional centres.

"With a department as big as CALM, it is always going to be difficult to have a seminar that is accessible to all staff. What we hope to do is move them around as much as possible, and have speakers' kits available for

staff in outlying areas."

To ensure people have enough time to get to them, metropolitan seminars will be scheduled for 12.30pm. The key presenter will speak for about 20 minutes and there will be ample time for questions afterwards.

"We realise that people won't want to go without lunch for the day, so they are invited to bring it with them, and eat while they listen," Luisa said.

As well as improving communication and the flow of information within

the department, the organising committee believes the lunchtime seminar series will show just how much knowledge is stored within CALM staff.

"It would be a shame not to learn from the experts we have among us."

Seminar Two of the CALM Lunchtime Seminar series will feature John Bartle speaking about 'Fighting Salinity in WA'.

Watch your notice boards for details of time and location.

# Night time participation is up

CALM's series of night-time activities run by The Hills Forest was once again a great hit with nearly 1500 adults and children visiting Mundaring—an increase in participation of 42 per cent.

"Sights and Sounds of the Night" offered a variety of outdoor learning experiences from around-the-campfire storytellers to Aboriginal Dreaming traditions and bush bands, all designed to attract visitors to the Perth Hills region before the colder months dampened enthusiasm for the great outdoors.

The Hills Forest staff's creative approach to providing experiences that raise awareness and understanding of our forests has resulted in the con-

by Kate Baxter

struction of a unique rammed-earth amphitheatre, nestled among majestic jarrahs.

Many of the 'Be Active Every Day' presentations, sponsored by Healthway, are held in this unique location, and take people on exciting journeys of discovery about the forest, Aboriginal culture, and music from traditional bush entertainers.

Healthway sponsorship was vital to the project, helping to keep charges to visitors to a minimum, while expanding the program.

Our masters of ceremonies, performers and volunteers had a great time promoting the health message 'Be Active Every

Day,' by wearing slogan-bearing caps and t-shirts, and placing stickers on visiting children.

Nature walks through John Forrest National Park, accompanied by CALM ranger Dave Briggs were especially popular with children, who love to discover some of the mysteries of the bush by torchlight.

And 'Starry, Starry Night,' held at the Perth Observatory was a must for families wishing to explore the night skies through powerful telescopes.

Western Creations Aboriginal Dance Group stole the show, however, with entertaining and informative presentations, depicting Dreaming stories, linking Aboriginal cultural heritage with the

forest and its inhabitants. There were many opportunities for the audience to become involved in the performances, which included dancing and playing the didgeridoo. The experience brought people back again and again, many with their overseas and interstate friends.

Western Creations Aboriginal Dance Group was founded more than five years ago, and is made up of six professional dancers from all around Australia, including as far away as Northern Queensland.

They have performed thousands of times in a variety of venues, including schools, shopping centres, scout jamborees and arts centres in New South Wales and West-



Western Creations Aboriginal Dance Group perform for enchanted CALM staff and visitors to The Hills Forest. Photo by Kevin Wilson

ern Australia.

Much of their work has a central message of respect for oneself, one's family, the broader community and the environment, all presented in an entertaining way.

The group is now also working with Gil Field, Maxine Chi and Trevor

Walley through the Aboriginal Tourism, Education and Training Unit at Como.

Their aim is to create opportunities for visitors to experience Aboriginal heritage with Aboriginal guides in bush settings such as Walyunga, Yanchep and The Hills

Forest. Several exciting tours will soon be on offer to tour operators and guides, giving visitors to Perth an opportunity to experience many facets of Aboriginal culture, including dance, music, instrument crafting and decorating, bush food and medicine.



Damien Lulaich nurses a faked broken arm, while St John's Lesley Hartman tells volunteers how they should render first aid. Photo by Larisa Vanstien

## More new volunteers for Go Bush! trained

ABORIGINAL music, dancing and Dreaming stories comprised the finale to two full Saturdays' training for new Go Bush! volunteers.

Thirty new volunteers, as well as many current Go Bush! volunteers, journeyed to The Hills Forest to explore some of its wonders, learn to do something different and have loads of fun.

The first Saturday's training began with a tour of the facilities conducted by Stev Slavin, manager of The Hills Forest Activity Centre.

This was followed by a bus tour of the surroundings and discussion of CALM management strategies with The Hills Forest Programs Officer Barry Hooper.

by Larisa Vanstien

Mock accidents that were not without humour, were contrived for the first aid training by St John Ambulance staff.

Also included on the first day was an introduction to the programs run by The Hills Forest, and roles, rights and responsibilities of Go Bush! volunteers.

The second Saturday's training involved an informative bushwalk with Mundaring senior reserves officer John Carter, and 'volunteer experiences' performed by current Go Bush! volunteers.

Stev Slavin and senior interpretation officer Gil Field, used roleplaying to

illustrate communication and interpretation techniques, and volunteer coordinator Terry Hales, provided information on future courses and opportunities within CALM.

The training ended with a barbecue and an Aboriginal Dreaming performance in the beautiful rammed-earth amphitheatre—with plenty of volunteers and staff, dragged out to participate in dancing and playing the didgeridoo.

Feedback from the new volunteers was that the training was 'fun and a great learning experience.'

Everyone at The Hills Forest was impressed by the motivation and initiative shown by our newest recruits.

## Changes to lists hold greater promise of help for wildlife

WESTERN Australia's latest list of threatened and specially protected fauna contains some significant changes that will help conserve the State's native wildlife.

The new list includes one species—Gilbert's potoroo—that had been presumed extinct for 125 years, while another—the woylie—has been removed as it is no longer considered in danger of extinction.

The list includes 160 native animals that are now specially protected under the Wildlife Conservation Act. These include 106 considered threatened with extinction, 13 presumed extinct and 41 listed as specially protected because of international agreements or because they are at high risk of illegal taking.

The Gilbert's potoroo has been transferred from the presumed extinct list to the threatened sched-

ule. The species was re-discovered at Two Peoples Bay in December, 1994.

The woylie was deleted from the list and has been categorised as 'conservation dependent' under World Conservation Union criteria. This recognises that ongoing management such as predator control is needed to prevent the species again becoming threatened.

Thirteen other species also have been transferred to the threatened list, several of them from the list of 'specially protected' species.

The additions include the sei and fin whales, the northern and southern marsupial moles (kakarratul and itjaritjari), the antina or central rock rat and the quokka.

Baudin's cockatoo and Carnaby's cockatoo have also been included along with the recently discovered 'harlequin frog'.

Quokkas have been listed because although they remain abundant on Rottnest Island, CALM surveys show the species has reduced in numbers in the Dwellingup and Manjimup areas.

The species as a whole, therefore, justifies special protection, particularly as its new listing will provide more of a deterrent to people who harm quokkas on Rottnest.

The maximum penalty for people convicted of harming listed animals such as quokkas is \$10,000 compared with \$4,000 for species not on the specially protected list.

CALM's much expanded feral predator control program, *Western Shield*, will be crucial to ensuring populations of species such as quokkas, which once ranged as far north as Moore River, recover and again become

firmly established in the South-West.

Carnaby's and Baudin's cockatoos were transferred from the specially protected list because of concerns over their low numbers and low breeding potential. An integrated research project into these two cockatoos and the forest red-tailed black cockatoo will be developed as a priority.

Other species deleted from the list for various reasons include the wilkinti (dusky hopping mouse) and koontin (Gould's mouse) and six bird species including the crested shrike-tit, rufous owl and red-tailed tropic-bird.

The new list was approved by the Minister on recommendations from the Threatened Fauna Scientific Advisory Committee, which had been endorsed by the National Parks and Nature Conservation Authority.

## Three new committees to review species listings

THE process used to review the conservation status of native plants and animals will be made more independent.

Three existing threatened species committees will be restructured into one group whose members will be appointed for their scientific expertise rather than as representatives of organisations.

The move is part of Environment Minister Peter Foss's aim to ensure advice on threatened species is based on the best available scientific expertise, rather than from ideological positions.

"The initiative will also instil a greater degree of independence

over the current threatened species listing system under which members were appointed to represent particular organisations rather than for their specialist knowledge," he said.

It will enable a broad cross-section of scientific expertise to be used as the new advisory group will be able to establish sub-committees to consider particular species.

The move involves restructuring the Threatened Fauna Scientific Advisory Committee, the Endangered Flora Consultative Committee and the Threatened Flora and Fauna Scientific Ranking Panel into a new Threatened Species

Scientific Committee.

The new advisory committee will include six to 10 members selected on the basis of their expert knowledge of the conservation status of the State's flora and fauna and will be chaired by CALM's Director of Nature Conservation, Keiran McNamara.

Its main function will be to carry out annual reviews of the lists of threatened and specially protected species. The review will include the priority lists maintained by CALM, which include species that require further surveys to clarify conservation status, and species that are rare and require monitoring.

The committee will also carry on the work of the ranking panel, which ranks species under criteria approved by the World Conservation Union (IUCN).

Subcommittees comprising six to 10 experts can be appointed to consider lists and categories of threat for specific groups of species.

The existing Threatened Species and Communities Consultative Committee, which is a forum for consultation and information exchange between community-based conservation groups and CALM, will remain. It will be expanded to include a representative of the World Wide Fund for Nature.

# No fazing felt when feeding fire fighters



Linda Gilbert prepares food for famished firefighters, while Brian Inglis and Rod Martyn salivate in the background. Photo by Gary Merrin, courtesy Sunday Times

**THE logistics of supplying food to those working on and around fire lines has bedevilled fire-fighting organisations for many years.**

Fire fighting is a physically demanding task, requiring high energy output, therefore fire fighters need high energy-producing food supplied to them regularly around the clock.

Food is fuel for the body. It should be palatable and high in carbohydrates, as this is the most efficient fuel for meeting high energy needs.

It needs to be supplied with a minimum of disruption to the task at hand.

Large quantities of water need also to be supplied—in fact, 200 ml every 20 minutes should be drunk. Fluid should be cool and low in sugar.

A Swan Region catering task force, established in 1995 to look at the logistics and determine strategies to overcome the

obstacles, came up with a number of suggestions, many of which were implemented on a trial basis in the 1995-96 fire season.

A mobile catering unit that can transport food at its required temperature to the fire line, and a catering handbook are two initiatives that have proved highly satisfactory.

The mobile unit stores food at its required temperature, losing only a couple of degrees over four hours.

A recent trial run saw food prepared in Dwellingup and transported to Bunbury.

Dwellingup storewoman Taryn Linning said the Bunbury fire-fighting staff sampling the goodies were most impressed that their baked potatoes were still hot enough to melt the butter, and the beef stroganoff was steaming.

"It was most satisfy-

ing to be able to supply the guys with an enjoyable meal in their break from the fire line, knowing it would help them get through the rest of the shift," Taryn said.

The catering handbook, edited by Taryn and Linda Gilbert, with input from those who helped with catering, provides information on storage and a collection of recipes to cater for 10, 25 or 50 people, and are all easy to prepare.

The handbook is being revised and will be reprinted in time for the 1996-1997 fire season.

Any contributions or suggestions will be most welcome.

Dwellingup has had the catering unit in operation for six months, and if readers wish to see it, please contact Dwellingup District manager Steve Raper, or Taryn Linning by phoning (09) 538 1078, or faxing (09) 538 1203 to arrange a visit.

# Office staff bone up for better customer service

by Annie Greig

**ACCURATELY** answering phone or personal inquiries from the general public can often pose a problem for district and regional office staff.

Apart from the excellent information available through CALM publications, the ability to refer to first-hand knowledge adds a personal and professional touch in the provision of site-specific information.

## Familiarisation

In Perth District, a twice-yearly familiarisation tour has been implemented as a means of developing office staff knowledge.

A recent tour to Garden and Penguin Islands and Hillarys helped us to understand the management of marine parks and the coastal environment.

Garden Island ranger Jim Maher, and senior research scientist David Pearson, gave a 'snakey' perspective (Watching

carpet pythons being sexed was an experience we're not likely to forget!)

## Some surprises

The boat trip across to Penguin Island was full of surprises with sea-lions cavorting in the shallows, and terns and shearwaters squabbling noisily in their rookeries.

Ranger Terry Goodlich and his staff described the new fairy penguin facility, and the view from the walk trail lookout across to the mainland was spectacular.

## Underwater world

Technical officer Kevin Crane showed us slides of the world under water at Marmion Marine Park and explained some of the management issues of the area.

Our thanks go to these officers for sharing their

knowledge and enthusiasm for the estate they manage.

Our first tour in mid-August 1995, gave an early taste of the wildflower season with a 7.5-kilometre walk through Yanchep National Park.

Our starting point was Lacey Road on the southern boundary of the park.

## Heritage trail

The route followed the most northerly section of the Yaberoo-Budjara Heritage Trail.

This is a 28-kilometre walk from Lake Joondalup to Loch McNess. We then continued through the wetland along the Yanjidi Nature Trail.

Highlights of the tour included views from upland heath vantage points over the tuart forest, protective maned geese with their young, and seeing the new works taking place in the national park.

Feedback was positive positive. Clerical officer Debbie Wheeler said that the experience gave more meaning to her day-to-day tasks.

## More convincing

"Being there, has helped me to talk to customers with a greater degree of conviction and enthusiasm, which makes me feel that I'm a vital component in achieving CALM's aims," she said.

These experiences have also generated enthusiasm in the group to take a walk in springtime to see the wildflowers of the northern sandplains at Moore River National Park. And maybe after that, the whole State!

So if you have walktrails, recreation areas and special projects that you would like more people to experience, get your office staff out there, on site, so they're able to expand on their experiences to visitors.

It has great health and fitness benefits too!



"Maybe we can do this full time," say Perth District front line staff, Pat Cleary, Debbie Wheeler, Lexa Fazzalari, June Talbot, Lee Henderson, and Marilyn Ramsay at the familiarisation tour of Yanchep National Park. Missing from photo is Julie Price. Photo by Annie Greig

# Back to back basics for pain-free posture

**THE way you hold your body determines what image you present to others, and how quickly you age.**

It is a fact that an unbalanced posture results in pain—usually in the neck and back.

We usually take a healthy back for granted—that is until something goes wrong.

Warning signs include burning, tingling, tightness,

by Linda Gilbert

stiffness or a sensation of numbness in the muscles.

The way we sit, drive and perform common tasks such as carrying and lifting may cause painful muscles.

This in turn may lead to muscle inflexibility and inactivity.

When the body is unbalanced, a great deal of pres-

sure is placed on the joints, causing them to become stiff, while the muscles weaken.

It is for this reason that you should listen to your body—and 'comfortable' is not always the main criteria for body wellness.

If you are comfortable you could be in an habitual slouched posture.

Slouching when sitting puts a stress on the back

joints that is 10 to 15 times greater than when lying down. Ensure that you have a supportive chair, but avoid sitting for long periods of time.

Be aware of how long you are sitting at your desk and try to get up at least every hour to stretch. If possible, alternate between sitting and standing, especially if the warning signs are evident.

It is important for you to look objectively at how you use your body in work and play, and the posture that results from your activities.

Ask a colleague to give you some feedback as to how you sit, or use a mirror to look at your standing posture.

Do you have a hunched back, rounded shoulders or forward poking head—do you look like a gorilla?

A good posture should be aligned without any exaggerations of the spinal curves.

Our lifestyle encourages us to keep our joints still and move through only a limited range of movement. However, we need a full range of movement to enable us to live the life that most of us want, with little discomfort or restrictions.

Regular exercise will

help increase the strength and flexibility of the key postural muscles, (that is, abdominal, back and leg muscles) enhancing a more balanced posture.

An incorrect posture is a hidden danger, as the damage to the joints and muscles accumulates over many years.

So start preventing the effects before you start feeling them!

# Knowledge recognised

STAFF can now receive a tertiary certificate without completing the formal study.

Recognition of Prior Learning, is the name of a new education practice that accredits an applicant who can prove he or she already possesses the necessary knowledge, gained from work-related training and experience.

This accreditation is not lightly given, as senior training officer Alan Byrne explains:

"Normally, a three-year, full time TAFE accredited course, covering 13 modules and seven electives, is required to gain accreditation, Alan said.

Kelmscott senior operations officer Ralph Smith needed to fill this training/qualification gap,

by Tammie Reid

identified in the staff appraisal process.

He opted for an intensive four-hour interview with an ex-CIB training officer and a TAFE course assessor, and he is now the proud holder of a Certificate in Statutory Investigation and Law Enforcement

During the interview, Ralph was required to convince his examiners that he had gained, as part of his CALM training and work experience, an extensive understanding of law enforcement and investigation and all the competencies required to qualify for the certificate.

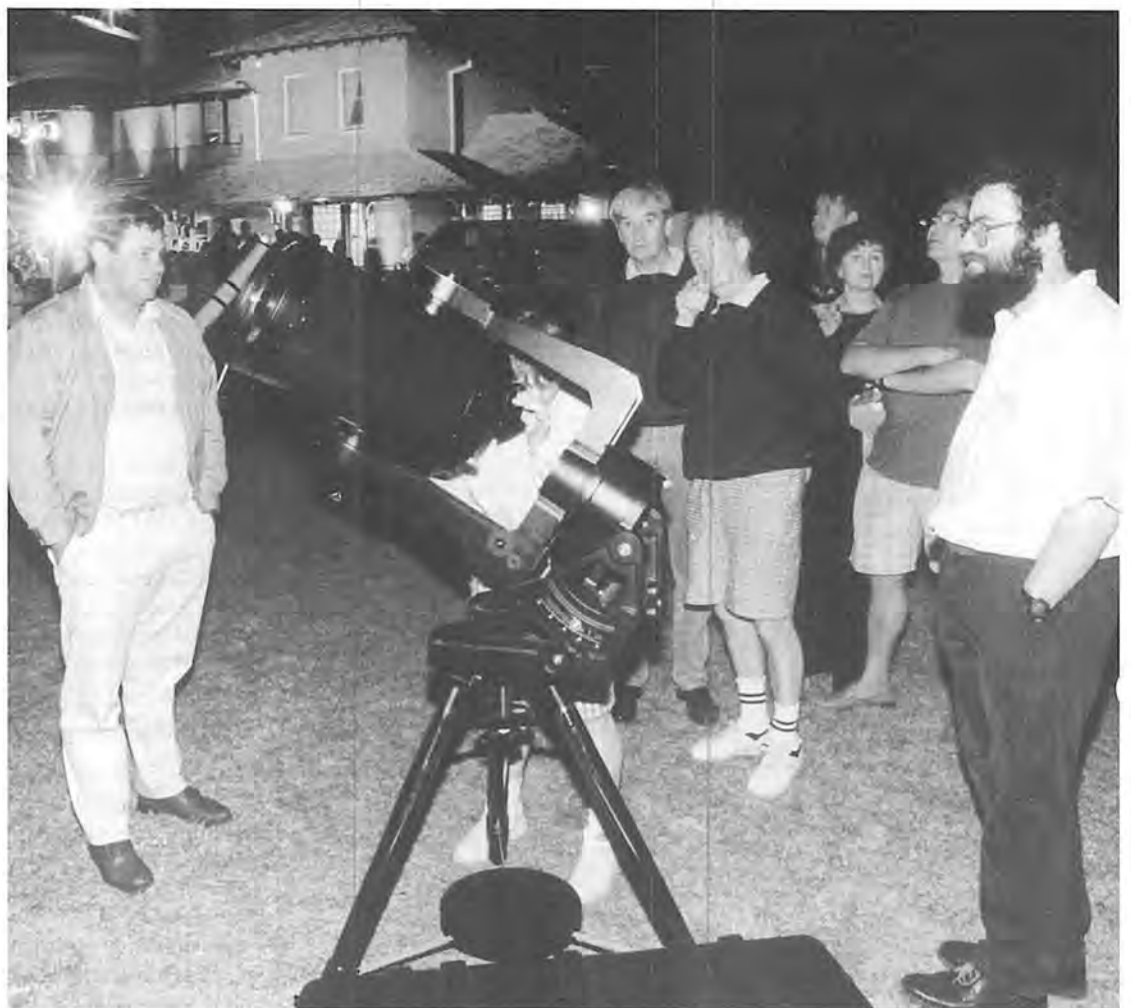
"It took a quite a while to put together the documentation to back up my

application, and the interview was a thorough grilling—the interviewing officers really knew their stuff," Ralph said.

Ralph is part of a team, working to set up and monitor the CALM Act and Forest Management Regulations in State forests.

His success in attaining the Certificate in Statutory Investigation and Enforcement is expected to inspire other members of the team, as well as other CALM officers in similar situations, to seek formal recognition and accreditation for their work-related training.

For further information on the Recognition of Prior Learning system, staff should contact Megan Somers on (09) 271 4655



Astronomers Ralph Martin, left, and Andrew Williams, right, are on hand to help amateur star gazers at the Old Observatory. Photo by Ross Swansborough

# Observatory marks its 100 years with timely BANG!

CENTENARY celebrations for the Perth Observatory, which became part of CALM earlier this year, got off to a noisy start recently when the Government Astronomer Jamie Biggs, fired a signal cannon commemorating the 'One O'Clock Gun'—an institution in Perth between 1902 and 1955.

The 'One O'Clock Gun' used to be fired from the old Perth Observatory on Mt Eliza at 1.00 pm each weekday to help locals keep correct time.

by Penny Walsh

It was the brainchild of WA's first Government Astronomer, William E Cooke, long before the advent of radio and telephone time services.

This year, however, the BANG that reverberated around West Perth signalled the beginning of a three-week centenary exhibition and series of free concerts to celebrate 100 years of astronomy in WA.

"The aim of the activ-

ity was to let people know that the Perth Observatory is still alive and kicking," Jamie said.

"We had to get special permission from all sorts of people to fire it, but the end result was worthwhile."

Environment Minister Peter Foss officially opened the exhibition, and congratulated Perth Observatory staff on their continued contribution to WA through education programs, public information services and scientific research.

Perth Observatory is one of the State's oldest continuously operating scientific institutions, and the only totally state-funded observatory left in Australia.

Jamie said the concerts and exhibition were a good way of introducing astronomy to a broad cross-section of the Western Australian community.

"All of the special activities we have planned during our centenary year are designed to increase awareness of the services we provide," he said.



Recognition for Kelmscott senior operations officer Ralph Smith. Photo by Tammie Reid

# Health and fitness leaders ready, willing and able

PEER leaders in health and fitness, nominated by their colleagues, attended a two-and-a-half-day training course in Perth recently.

The course, which was partially funded by a grant from Healthway (WA Health Promotion Foundation), was the first stage in developing a dynamic network of ambassadors in health and fitness.

The training included theory and practical sessions on various aspects of fitness and promoting health and healthy lifestyles.

All health and fitness leaders received resource files and information to which they can refer, particularly when responding to questions on health issues from colleagues and family or friends.

All of the participants expressed their satisfaction with the training course and resource. The enthusiasm and motiva-

by Linda Gilbert

tion to implement the ideas and methods discussed was evident on completion of the course.

But the real success of the training and networking can be measured by the actions of these leaders in the future.

Although it is only early days, many leaders have introduced new health and fitness initiatives into their workplaces—including health and fitness information boards, sports competitions, information sessions, warm-up and stretching times, fitness testing, to name a few.

So, find out who the peer leaders are in your area, and support the activities they initiate on your behalf, and remember, the benefits of participation and involvement towards the improvement of health and fitness are for you and your family.



Who is your fitness leader? They are standing left to right, Dave Bastiani, Ian Flecker, Rebecca Wookstholme, Edd Turner, Mark Lush, Mike Innis, Mike Cantelo, Jacki Nichol, Warwick Roe, Mel Price, Steve Blyth, Barry Hooper, Rob Turner, Ray Thompson, Arthur Pettifor, Brad Daw, John McKenzie. Seated are Steve Sweetman, Andrew Horan, Janine Rosman, Natalie Hull, Max Bending, Scott Codley, Len Zamodio and, doing a one-handed press up, is Rob Maranta. Photo by Linda Gilbert





Forest workers Bill Beach, left, and Mark Humble plan tasks for the day at Icy Creek. Photo by Tammie Reid

## Partnership provides camping in comfort

**ENVIRONMENTAL education partnerships are strong between CALM Dwellingup and Morley Senior High School.**

by Tammie Reid

For more than 10 years, the development of Icy Creek Environmental Bush Camp, at Lane Poole Reserve in the Murray Valley, has been shared between the two organisations.

MSHS provides administration, booking and promotion services, and CALM carries out the on-site maintenance and security.

Management costs are covered by camping and amenities fees, and the site is available on a booking basis to any group with an environmental education focus.

Under a New Work Opportunities (NWO) employment scheme, Icy Creek is again in a construction phase.

Six bush camping huts, sleeping 10 per hut, are proposed, to increase the capacity of the site to cater for younger groups in the wetter months, when camping under canvas is a considerably less attractive prospect.

The timber structures are set in groups of three around a shared campfire. Four are scheduled for completion by the NWO scheme. Dwellingup CALM forest

workers Allan Clark, Ralph Staines and Bill Beach share the carpentry task of directing the standards, advising and working alongside the NWO workers.

Bill said that there was a great deal of friendly competition between work groups.

"Each group has been working on a hut, with fierce rivalry to do it quicker and better than the other," Bill said.

"For a group of people with little previous building experience, they've really done well, with two huts completed in a little more than three weeks."

The school secured most of the funding for plans, materials and equipment from its Parents and Citizens group, with generous sponsorship from ALCOA and support from Bunnings. But the project really got off the ground when NWO took up the building component and CALM Dwellingup provided on-site project management.

The program aims to give participants, most of whom come from the Pinjarra or Dwellingup areas, new building skills, confidence, and full-time job experience.

Project supervisor, Jeff Wrobel has been in the

building game for more than 30 years and he is full of praise for the work so far.

"The group is enthusiastic and puts in extra effort and attention to detail when it comes to getting the job done quickly and well," Jeff said.

The Icy Creek development will not be over when the NWO signs off in July.

Tourism and Dwellingup recreation program leader Mark Humble said that there would be some rehabilitation required on site: fencing off tracks, designing pathways and completing the other two camping huts to cater for a total of 60 people.

"A large picnic shelter is also proposed to complete the wet weather facilities—a hot water shower block and a large, open-sided meeting structure already exist from the last development phase," Mark said.

"Overall, Icy Creek will keep its low key, development flavour, and the focus will remain on education in the natural environment."

If you are interested in using Icy Creek and your group qualifies under the booking guidelines, phone Morley Senior High School's youth education officer Ian Maserai, on (09) 276 5766 for booking and facility information.

## Naming ceremony for Perth Observatory's latest 'baby'

by Penny Walsh

**PERTH Observatory workshop staff Arie Verveer and John Pearse had reason to celebrate recently when their 'baby' was officially named and launched.**

Arie and John have spent the past four years hatching a robotic prototype telescope in the Observatory workshop.

The specially designed 10-inch telescope is fully computer controlled and will revolutionise asteroid and comet tracking in the southern hemisphere.

It has an extra wide field of view (about two thirds the area of the full Moon), which is ideal for obtaining accurate sky positions, and may assist in the discovery of other phenomena such as stars with variable light output.

The telescope was named after Mike Candy, former Government Astronomer for WA, in recognition of his contribution to the science of Astronomy both here and internationally.

Mike passed away in 1994 while employed by the Observatory and engaged in project work. His family was well represented at the official ceremony (see picture).

Environment Minister



Director of Regional Services Chris Haynes and his wife Liz joined Environment Minister Peter Foss, Technical Manager Arie Verveer and Government Astronomer Jamie Biggs at the commissioning of the Mike Candy telescope.

Photo by Ernie McLintock

Peter Foss congratulated Arie and John on their workmanship on the new instrument. He said that if this prototype telescope performed as well as expected, larger telescopes (with apertures up to a metre wide) could be built using the same fun-

damental design.

While at the Observatory, Mr Foss also admired the new Solar System Walk and landscaping work.

The Solar System walk features a series of plaques that illustrate the relative distance between planets. The landscaping work was

carried out by gardener David Tiggerdine.

As well as enhancing the look of the complex, garden beds absorb some of the damaging heat that can affect the performance of the Perth Observatory's delicate instruments.



Rod Martyn shows where tortoises can now move safely under the fence.

Photo by Roger Markham

## Tortoises protected

**CALM's Perth District staff believe they have solved a problem at Thomson's Lake, where a number of tortoises attempting to move outside the reserve were impeded by the vermin-proof fence. Some had become dehydrated and died along the inside of the fence.**

The movement of tortoises did not occur consistently, and is believed to be associated with females moving long distances to lay eggs in spring and early summer. Others migrate between wetlands, partly during the past summer when Thomson's Lake dried.

Only a small percentage are believed to have migrated from the reserve, with most burying themselves under the mud in

the lake as the surface dried.

The solution? Two tortoise gates were built and set under water in ponds built directly under the vermin-proof fence at locations where tortoises were known to gather.

Perth District staff Rod Martyn and Lyndon Mutter designed the ponds and gates, on the advice of University of Western Australia research scientist Gerald Kuchling.

Overseer Glen Hughes built a concrete prototype pond, and the second pond (an improvement on the first) was built using fibreglass.

The concept appears to be successful. At one stage, five tortoises were observed using the ponds, where they appeared to be spending some time rehydrating

before moving on.

Long-necked, or oblong, tortoises (*Chelodina oblonga*) are common in freshwater wetlands of the Swan Coastal Plain.

They lay clutches of up to 25 eggs which hatch in August and September, many of which are predated upon or perish before making it to the wetlands.

The tortoises are carnivorous, feeding on fish, molluscs and crustaceans.

While the vermin-proof fence impeded movement of some tortoises, its benefit to the tortoise population overall has outweighed the disadvantages.

Before the fence was built, many migrating and nesting tortoises fell victim to foxes, and freshly dead tortoises were often seen with their heads bitten off, possibly by cats.

# CALM South Coastal's voyage extraordinaire

A 10-day ecovoyage from Esperance to Albany by the Sail Training Ship *Leeuwin* has provided a unique opportunity for CALM South Coast Region staff to provide specialist interpretation and activities along the way.

The *Leeuwin* recently began operating a small number of 'ecovoyages' with up to 38 passengers of all ages, in addition to the sailing crew.

Because of the superb network of coastal reserves between Esperance and Albany, we suggested that the *Leeuwin* make a number of land falls, particularly at the Fitzgerald River National Park, one of Australia's model biosphere reserves, and at Two Peoples Bay Nature Reserve, home to the noisy scrub bird, Gilbert's Potoroo and numerous other threatened species.

We also suggested that rather than have one CALM officer act as specialist for the whole 10-day voyage, we could use the land falls as an opportunity to change staff. As a result, we arranged for a wildlife officer to accompany the voyage for the first few days

by John Watson

through the Recherche Archipelago Nature Reserve near Esperance.

Fitzgerald River National Park rangers then joined the vessel for two sectors along the Biosphere Reserve coastline, and the Two Peoples Bay Reserve manager completed the final few days into Albany.

We also arranged three full days on shore, two in the Fitzgerald River National Park, where biological survey work was demonstrated and recreation management issues explained, and one day at Two Peoples Bay, learning about various threatened species recovery programs.

In all, about 10 staff from CALM were involved, covering a wide range of expertise including marine fauna, island ecology, biosphere reserves, national park management, biological surveys, threatened species management and planning.

We are still assessing the outcomes of the venture, but early indications are that it was extremely successful all round.

First, we provided an

excellent team of specialists for the 'ecovoyagers' and secondly, a broad range of our own staff gained valuable experience in a rather more specialised interpretive situation than is normally encountered.

CALM staff played an integral part in sailing the vessel and were assigned to 'watches' and went 'aloft' like the rest of the participants. They also gave evening video and slide shows, and were able to help participants with their numerous queries on a more informal basis.

We gained excellent local media coverage for both the *STS Leeuwin* and for CALM with several articles in local newspapers and a GWN television news crew on board with me for the final day into Albany.

We can genuinely say now that our nature interpretation is occurring from land and sea!

*The STS Leeuwin is a 55-metre three-masted barquentine, built in 1986. She is the largest sailing ship in the southern hemisphere and carries more than 800 square metres of sail cloth when fully rigged.*



Two Peoples Bay Reserve manager Alan Danks, Gairdner River farmer and voyage co-organiser Charlie Hick and South Coastal Regional manager John Watson.



Returning to the *Leeuwin* from Point Ann, Fitzgerald River National Park. Photo by John Watson



CALM Albany office staff Tracy Ferguson and Melissa Ford at Point Ann, Fitzgerald River National Park. Photo by John Watson.

## South Coastal Regional staff in ship shaping-up form

THE ten South Coast Region staff who took part at various stages, in the Sail Training Ship *Leeuwin*'s 10-day 'ecovoyage' from Esperance to Albany gave a dimension to the trip that was reminiscent of the days when early discoverers

by John Watson

dropped anchor, went ashore and explored the area.

There were some differences—the 1996 visitors were expected, and their intentions were friendlier

than those of the earlier explorers.

At Hopetoun, Fitzgerald biosphere ecologist Angela Sanders, park ranger Mark True and wildlife officer Peter Collins led the 'ecovoyagers' in fauna trapping, site surveying and guided walk activities.

At Point Ann, park rangers Nathan McQuoid and Lindsay Brown led guided walks of the Point Ann Heritage Trail, the whale-watching platform and the new St Mary's campsite.

Later, one group walked up West Mt Barren with Lindsay Brown, while the

other group visited Twertup Field Studies Centre, and completed the Horrie and Dorrie Walk with Nathan McQuoid and me. Finally, at Two Peoples Bay, the party visited traplines, the Recherche Station and the Heritage Trail with re-

search assistant Leigh Whisson and reserve manager Alan Danks. (I also joined the voyage for the final leg from Two Peoples Bay to Albany.) Feedback from visitors and staff has been enthusiastic and we are now working in liaison with

the *STS Leeuwin* to refine and improve the program for next year.

CALM staff found this to be a most enjoyable and challenging experience and are looking forward to an ongoing partnership with the *Leeuwin* on future 'ecovoyages'.

# Droving? All in a day's work for Goldfields staff

**REGIONAL and district staff whose work takes them outdoors are probably least likely of all staff to complain of boredom with their work.**

This could be because the nature of their work presents them with a variety of tasks and challenges.

One such challenge saw Goldfields staff experience a sense of great satisfaction with a tough job well done, when they became temporary jackeroos at CALM's Goongarrie pastoral lease.

The task was to locate and yard more than a thousand heep before being transported for shearing.

Operations officer Phil Spencer tells the story:

Goongarrie pastoral lease is located on the transition line where eucalypt and mulga woodlands converge, and contains a number of salt lake flats and breakaway formations.

It was in this type of country that the first destocking muster took place, and was a two-week stint for CALM 'jackeroos,' Grant Pronk, Geoff Young, Bernie Scanlon, Kim Phillips-Jones, Ian Kealley, Warwick Roe and me.

Cyclone Bobby had played havoc with an earlier station muster. Shorn

and unshorn sheep were mixed together. With the abundance of water, they were able to avoid the muster and congregate in the heavier woodland scrub.

Some sheep had wool dragging on the ground and looked as if they had not been shorn for two or three years, especially a mob from the western paddock.

This mob was flushed out by an aerial muster on the second last day, after an earlier attempt using motor bikes failed due to poor fences and thick scrub.

The surly sheep, along with an unexpected 20 head of cattle, with horns that would make a Texan rancher proud, came charging over a hill on the fence line where they were intercepted by the roundup crew.

Fortunately, the cattle moved through the fence to the west onto vacant crown land.

The sheep, still looking for any avenue of escape, were driven to the south, where portable yards had been set up. A further six sheep were sighted from the air in heavy scrub.

Kim and Bernie brought them to the yards after some very hard riding. All but two sheep, which broke away and were later recap-



Goldfields Regional Manager Ian Kealley comes to grips with some difficult sheep, with the help of leading hand Bernie Scanlon.

Photo by Phil Spencer

tured by Grant and Bernie in a spectacular style, were yarded, then transported by truck to the shearing shed with an improvised sheep cage constructed from miscellaneous bits and pieces from the homestead.

During the fortnight,

motor bikes got flat tyres, gear shifters snapped off in the heavy scrub, grumpy sheep made every attempt to sneak off and escape at the slightest sign of heavy vegetation, and would-be Snowy River men (sorry, Banjo) were saddle sore.

There was some good fortune along the way, however.

While mustering lake country to the east, the station's old sheep dog accompanied Geoff, Grant and Kim, who had a large mob of sheep.

The sheep decided to go over a treacherous lake, and the only option for the musterers was to follow.

They had a great deal of difficulty crossing the lake and became bogged.

When they reached the other side, they thought all

their hard work was in vain, until they saw the trusty old station dog holding the mob for them.

Further musters have removed another 200 sheep, with more still to be rounded up from mainly inaccessible woodland.

## Jeni is after your marrow

**THERE are 250 people in Australia, and hundreds worldwide, who suffer from leukaemia, aplastic anaemia and other bone marrow disorders.**

They are searching for bone marrow donors—and if a compatible match can be found, a transplant can take place.

Since the WA Red Cross started its Bone Marrow Registry in 1991, about 7,500 Western Australians have enrolled.

There is, however, only a slender chance of being matched to a patient. To date, only twenty WA donors have been matched, and donated bone marrow.

CALM part-time nature conservation planning officer Jeni Alford is one of those who have registered and donated bone marrow.

Jeni, a blood donor for more than 15 years says that anyone in good health between the ages of 18 and 50 years, can register on the bone marrow registry.

"All it takes is a small sample of blood to determine bone marrow type, and, if called upon to donate, your marrow could be sent to a patient anywhere in the world," she said.

Jeni enrolled onto the Bone Marrow Registry two years ago, and six months ago she was asked if she would like to donate marrow to help a young child.

"I was in hospital for a day and a night, and despite not being overly fond of hospitals, nor the prospect of being anaesthetised, I found that it wasn't at all painful," she said.

"It took a few weeks to feel like running a mara-

by Verna Costello

thon, but no more than I'd have felt after a normal blood donation.

"Two progress reports since the bone marrow transplant took place have showed that the patient is doing very well and has been discharged from hospital.

"In ten months' time, if the parents, the child and I agree, we all can meet!

"I know a lot of CALM

staff are blood donors, and I'd like to see them carry this a step further and be placed on the bone marrow registry.

"Who knows, you might one day experience the thrill of saving someone's life.

Because Australia is multicultural, the Red Cross is particularly interested in people of ethnic origin other than Anglo Saxon-Celtic—it seems different races can have different bone marrow types—but whatever your background, there can't be

too many on the registry.

Simply phone the Australian Red Cross (Western Australia) Bone Marrow Donor Registry on (09) 325 3333 for further information.

"Then go for it and bleed for someone in need!" Jeni said.

Another CALM staff member who has enrolled in the Bone Marrow Match Registry, is herbarium priority flora surveyor Diana Papenfus. She endorses Jeni's plea to other staff to 'be in it'.



Jeni Alford—keen to see more marrow donors. Photo by Verna Costello

## More welcome news while *Hemigenia exilis* populations increase

by Anne Cochrane

**SINCE the Lake Darlot find last year of the presumed extinct *Hemigenia exilis*, the number of populations found has now increased to 23, comprising almost 4,000 plants, and spread over a wide area of the State.**

### Anaconda funding

Some of the known populations are located on the mining company Anaconda Nickel's lease, east of Leonora, where the company has provided funding to survey for this purple-flowered mint bush.

Eleanor Bennett, the botanist conducting the surveys, has provided the Threatened Flora Seed Centre (TFSC) at CALM's WA Herbarium with more than 50 bags of seed of the hemigenia, for testing and storage.

### Labour intensive

The tiny seeds were mixed in with old fruit casings and dead vegetative material, so initial attempts to clean and count the seed proved laborious, with one bag taking approximately one-and-a-half hours to process.

We estimated the total time to process all 50 bags would involve more than

two weeks.

After a busy season collecting seed of rare and critically endangered plants from the South-West, we were 'up to our eyeballs' in unprocessed material.

So Anaconda Nickel came to the rescue and provided funding for the employment of a consultant to clean the seed.

The consultant, Nicky Robinson, did a sterling job (a most boring job we would have to admit!).

The cleaning and counting was not quite as simple as first expected and a reduced surface tension flotation method was required to separate the 'good' seed from the 'bad'.

The theory behind this method is that 'good' seed is heavier, having a healthy endosperm, and 'bad' seed is light, often being empty.

Nicky then did a random cut test on a selected number of both the sinking and floating seed.

The results have shown that these two methods work very successfully, with 94 per cent of the floating seed having

shrivelled or having no endosperm, therefore 'bad', and 98 per cent of the sunken seeds having a healthy endosperm, therefore 'good'.

More than 33,000 seeds were given to us originally, but only about 31 per cent were healthy.

We've since put down a number of seed samples for germination testing, and eagerly await the results, (particularly Nicky, considering the time and painstaking effort she has spent processing them).

We're not holding our breath, however, as the plants are known to sucker when disturbed, indicating that they may not rely heavily on seed for regeneration.

By having seed in a 'gene bank' we are ensuring that the species is not lost.

Management of the populations in the wild, however, is the most important way to conserve the plant.

### Efforts enhanced

Ultimately, with increasing knowledge of the hemigenia's habitat, and our experience in the propagation of the plant, Anaconda Nickel's efforts to protect the species will be considerably enhanced.

# John Forrest NP plays the role of her life as Katta Moornda Park

JOHN FORREST National Park has been invaded, the first casualty being its name which is replaced with 'Katta Moornda National Park'—but only for two days a week.

The 'friendly invaders' wear identity cards, mostly on Channel Seven shirts, and wave cameras and clapperboards about, all with the aim of producing a drama series about a national park.

Senior ranger George Duxbury said that the park's old tea rooms had become a set for the ranger's headquarters, and one of the workshops was the children's clubhouse, while the park itself provided almost all the location requirements in the form of topography and vegetation.

"All indoor scenes are filmed on sets built in the Channel Seven studios," George said.

"This means that, on average, filming in the national park takes place two days each week.

## Friendly liaison

"Everyone is very co-operative; producers, directors, actors and Channel 7 staff—all are most considerate and do everything they can to avoid disrupting the daily running of the park.

"The series' writers work closely with CALM staff to ensure the storylines are accurate, even if a little more dramatic than the day-to-day situations faced by 'proper' national park rangers."

The program is a children's drama series—*The Adventures of the Bush Patrol*—and revolves around a gang of kids led by the ranger's children. The kids tackle the wrongdo-

ers in and near the park to ensure that conservation values are protected.

## Appealing story

The story has a single mother of two, Maggie Dean, as the senior park ranger of Katta Moornda National Park. Her daughter, 13 year-old Tracey, and son, 9 year-old Ben, live with her in the park ranger's residence.

Assistant ranger Tony Harrison is a close family friend, and father figure for Ben.

Another firm friend of the children is Gully, a local Aboriginal kid, of endearingly cheeky charm.

Veterinary surgeon Kelly Davidson, who specialises in tending sick and injured native animals, features from time to time throughout the series.

Tracey is leader of the Bush Patrol, which tackles a number of issues, from conservation in the face of threats by commercialism, to the melding of traditional Aboriginal ways with modern life.

Maggie Dean is played by Wendy Strehlow, Tracey Dean by Lisa Laird, Ben Dean by Steele Sciberras, Tony Harrison by Rodney Bell, Gully by Kyle Morrison, and Kelly Davidson by Kate Whitbread.

Filming in the park of the first 26 half-hour-episodes started on February 26, with the second series now well under way. The third series is expected to be wrapped up by mid-October.

The first screenings of *Adventures of the Bush Patrol* are expected to hit Perth towards the end of the year.

Don't miss it!



Q: Which one is the real ranger? A: There are two—John Forrest National Park rangers Jean Burchard (left) and Keith Kickett (right). According to Keith, Rodney Bell, (second from right) is totally convincing as assistant ranger Tony Harrison. "In fact," says Keith, "they're all great—I can't wait to see them on TV." Behind Rodney are fellow actors Kate Whitbread and Kyle Morrison. Photo by Verna Costello



Katta-Moornda stunningly portrayed by John Forrest National Park. Photo by George Duxbury



After waiting for shrinkage of the green wood to occur, forest workers Keith Harris and a camera-shy Kevin Pratt check the stability of one of the Lane Poole Reserve bridges. Photo by Tammie Reid

## Building bridges—for visitors' comfort and plant protection

GONE are the days when visitors to Lane Poole Reserve can be left to their own devices to cross Nanga Brook on a slippery moss-covered log.

Instead, as part of CALM's duty of care and responsible recreation site design, we must provide safe, well designed footbridges.

So far, five footbridges have been designed and constructed by the Dwellingup crews. The timber was cut with a Lewis saw from logs salvaged to make room for SEC power line poles, and trees felled to secure wildfire boundaries.

The on-site work involved pulling out the old logs, designing the stringer and stumping systems to bridge long spans and negotiate shallow soil over

by Tammie Reid

rock, and finally the construction itself—all best done in the height of summer when the brook is gently flowing and the water is not too cold.

The visitor safety review at Nanga Mill Recreation site is all part of a bigger plan to review and recommend a Master Recreation Plan for the Lane Poole Reserve.

The review will be done in the context of the LPR Management Plan, and coordinated by landscape architect Tracy Churchill. A small project team will prepare strategies and development options for public and departmental input.

Dwellingup acting district manager Steve Raper said he welcomed the

move.

"Lane Poole Reserve's beautiful river setting, its close proximity to Perth and boasting the largest camping facility on CALM-managed land, make it a major attraction for more than 200,000 visitors each year," Steve said.

"Most of the camping-recreation development was done under the Federal government's employment schemes of 1983-84, before CALM was formed.

"Today we're dealing with an annual maintenance cost of \$130,000, which is almost 50 per cent of Dwellingup District's total recreation and tourism budget. Our visitors have different expectations. We also have a duty to protect and conserve the natural assets of the reserve from

those 200,000 pairs of tramping feet!

"A Master Plan will provide the vision for what we want to provide and how we might do this. It will set our yearly budget priorities so we can target our money wisely.

"Still in the early stages, the master plan ideas floating around are exciting: a bike-based travel route through the valley, entry roads redesigned to more easily gain access to individualised camp sites where materials used in the buildings blend with the surrounding environment.

If you want to know more or are keen to comment on the development options please register your interest with Tracy Churchill by phoning her on (09) 334 0374, or by fax on (09) 334 0465.