

December 2011



Biddip

Newsletter of the Toodyay Friends of the River

Volume 5, Issue 3



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Above: One of the Millennium Kids is encouraged by Vanessa Paget from 'Bush Wisdom' to make friends with a Monty (carpet python). See page 3 for the full story.

**GRATITUDE IS EXTENDED TO THE
TOODYAY COMMUNITY RESOURCES CENTRE
FOR KINDLY PRINTING THIS NEWSLETTER**

Presidents Report by Greg Warburton

As 2011 closes the Toodyay Friends of the River can look back with much satisfaction on a year of achievement. It is a pleasure to refer to some of them here in our last newsletter for the year. Highlights include the Harper Brook Re-vegetation project (late rains have seen the seedlings thrive), Millard's Pool picnic shelter, various signage improvements and the Lloyd Reserve campaign. These projects have been supported by TFOR's funding application successes. Being Toodyay's 175th year has made 2011 a special one for our community. Health improvements for certain members are another reason for celebration. The TFOR year was appropriately concluded with a very pleasant social gathering of members on the slopes of Mt. Anderson in November.

The TFOR team now takes a break returning for the first working bee of 2012 in February. There are a number of things to look forward to in the New Year not least the next stage of the Heritage Walk Track, another "Rivercare" project and the formation of a new overarching Avon River conservation group. Work will continue throughout 2012 with Tamarix and Bridal Creeper control along the River conducted by Wheatbelt NRM and funded by Caring for Our Country. Working with Main Roads and KAB we hope to ramp up some of our anti-litter activities next year. Considerable slashing to reduce hazards will take place over summer at Harpers Brook and Lloyd Reserve. Next year's TFOR working program will be finalized at a planning meeting in January.

In the meantime I wish to extend a heartfelt thanks to all members and supporters of TFOR for their hard work and valued contribution. May the Festive Season be one of safety and moderation with time for family, friends and loved ones for all of you.

As with last New Year's celebrations I look forward to seeing 2012 in with TFOR'S own "Dancing Queens!"



Left: Bernie Kelly being presented with a Certificate of Appreciation and gift by President Greg, with his charming wife, Rosemary, accepting some flowers.

Bernie has supported the TFOR for more than a decade through his role with the Department of Water, and made some firm friends with the Friends.

Bernie has been relocated 'down the hill' in the Welshpool office, in charge of a lot of groundwater monitoring and measurement.

Sustainable September in the Avon

It was a pleasure to meet with some of the 'Millennium Kids' in Duidgee Park Sunday September 25th. These students were concerned about the environmental plight of our precious river and want to help. Vicki, Robyn and I addressed the group and were asked poignant questions about conservation and the environment from these inspiring youngsters.

'Millennium Kids' is a *not for profit* organisation that encourages young people to be aware and active in environmental issues, with training offered in water resource and waste management, energy conservation, health education, preservation of culture, youth leadership and empowerment. It was a bonus for the TFOR members when we were invited to an enthralling reptile demonstration with a range of friendly pythons and lizards passed around the group. It gave one member of the group an excuse to be a 'big kid' for a while.

Thanks to Millennium CEO, Catrina-Luz Aniere, and her dedicated team for coming to see us and we look forward to continuing our association with this wonderful organisation.

Greg Warburton

For more information on the Millennium Kids, and what they do, visit their website at:

www.millenniumkids.com.au You can read all about their visit to Toodyay, and their meeting with the Toodyay Friends of the River. Thanks to Wheatbelt NRM for their support on the day.

Below: Secretary Robyn Taylor addresses the MK in Duidgee Park



Toodyay Agricultural Show 2011

The Agricultural Show is always a busy weekend for the Toodyay Friends of the River (TFOR) and this year was no exception. Being Toodyay's 175th celebration year extra efforts were put in all round.

The huge marquee provided by the celebration funding allowed for no less than eight different environmental groups to be represented. Thanks to Wheatbelt NRM, Kanyana Wildlife Hospital, The Mallee Fowl Preservation Society, DEC, the Toodyay Naturalists' Club, Armadale Reptile Park and of course TFOR. Your presence on the day was greatly appreciated and a demonstration of how strong the conservation consciousness is in our part of the world. Vicki had a 'steady stream' of children pumping water through the river model but the biggest draw card was the reptile display. This was presented by Jon and Hayley from Northam who assured there were plenty of curious visitors to the 'Environment Matters' marquee. We have booked 'Miss Hiss' and friends again for next year.

I'm always humbled by the turn out from TFOR and the Toodyay Naturalists' Club (TNC) members early on the Sunday morning for manure and rubbish pick up followed by a further clean up at the conclusion of the equine events in the afternoon. The job was completed with usual efficiency by the dedicated band. The money earned for our groups is gratefully received and well worth the effort.



Above: The TFOR display, meticulously constructed by Greg, at the 2011 Toodyay Agricultural Show.

Toodyay Agricultural Show 2011



Above: Stimsons python and its wary handler, Frank Panizza.



Above: Our new theme sign.
Left: Farming produce display
Right: Caught in the act
Display courtesy Kanyana Wildlife



The above photographs are a selection from the 2011 Toodyay Agricultural Show environment display. The theme adopted for this and for future shows is *'Environment Matters'*

Note: The kangaroo and the emu are hiding the feral animal in the display

BOYAGERRING BROOK CROSSOVER

by Dr Robyn Taylor

August 2011

Last year the winter rains were not heavy enough to test the culvert that had been constructed under the new concrete crossing over Boyagerring Brook. However heavy rains in July this year made it apparent someone will need to return to the drawing board. Not only has one section started to break away, there is now serious erosion down the sides and under the walkway.

The Shire has been contacted and the situation noted.

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Nothing has been attended to at this point other than clearing away debris but the area has suffered further erosion beneath from the recent rains.

Photos by Robyn Taylor.



Left: The culvert has water flowing through it - and around it. Poor design and/or construction are a concern.

This needs to be corrected before the subdivision is passed by the Shire.

Right: Damage caused to the pathway caused by erosion. This damage could cause a nasty fall if not noticed by walkers.



LLOYD RESERVE NEWS

Lloyd Reserve Strategic Management Plan 2011 - 2016

On the 3rd October 1999, Mr Oriel Lloyd (of Calbaline Farm, Toodyay) donated a parcel of land, comprising some 5.62ha, to the Waters and Rivers Commission and the People of Western Australia. The only two conditions were that it be named Lloyd Reserve “*in remembrance of my family, and that it be managed by the Toodyay Friends of the River for the purpose of conservation and passive recreation*”.

At the TFOR Planning Meeting in January 2011, it was decided that we needed a Strategic Development Plan for management of the reserve. Brian Shepherd offered to facilitate the drafting of a plan, and a working group was formed for this purpose. The group met (at Brian and Richard’s home) on a number of occasions, and Brian drafted a template for the group to work from. This draft was worked through over a number of meetings, with Brian updating the draft as it was populated. The final draft was assembled and formatted by Wayne Clarke. Key components of the Plan are reprinted below.

Vision Statement

Lloyd Reserve will be a popular facet of an envisioned Avon River regional park. It will feature remnant biodiversity and natural habitats, conserved and interpreted by the TFOR for purposes of education and enjoyment for present and future generations

Mission Statement

Lloyd Reserve - conservation and community

Objectives

- *to link the Reserve with a proposed Avon River walkway, especially between Duidgee Park and Millards Pool*
- *to conserve and enhance the natural vegetation of the Reserve section of the Avon River’s riparian zone*
- *to provide access to the river, through the Reserve’s walkways*
- *to encourage responsible community use and appreciation of the Reserve for passive recreation*
- *to develop Lloyd Reserve as a focal point for environmental education*
- *to maintain a viable seed orchard; and*
- *to be a place of TFOR “ownership”, a location and facility for meetings and events*

Values Underpinning the Objectives

TFOR are the current custodians of the Reserve and are committed to the appreciation and conservation of the riverine environment. The group believes:

- *active community groups reflect the wellbeing of communities;*
- *it is important to understand the interdependence of ecosystems;*
- *it is important that the community appreciates the value of ecosystems;*
- *that involvement of community in preserving ecosystems is essential;*
- *it is important that the community “connects” with the river given its historical and environmental importance to the Shire;*
- *it is important to recognize and appreciate Indigenous connections to the river;*
- *quality development is needed to impart a sense of value and inherent respect for the area;*
- *in regular maintenance and effective management of the Reserve; and*
- *in promoting goodwill with neighbouring property owners*

A full copy of the Plan can be obtained by email request to info@toodyayfor.org.au or phone 08 6364 3609

TROUBLED WATERS OF THE AVON

by JR (JIM) Masters

The good early rains of this autumn, followed by moderate winter falls, have brought the usual lovely carpet of green to the rolling hills of the Avon Valley farmlands. The trees and shrubs have shot forth strongly, aided by summer rains, promising a wealth of flowers and seeds.

However, the workings of nature are always complex, and to us, often fickle. Sometimes rain can have consequences that alter river conditions considerably. This year, a salty flood has resulted from normal causes, - accentuated by the actions of man. The Avon is in trouble.

The good rains extended eastwards over the vast 120,000square kilometres basin of the river, from Wongan Hills out to Southern Cross and Hyden as well as southwards towards Wickiepin. Except in the north-east parts of the basin, farmers rejoiced that this was not a season of drought and dust, or flooded fields with boggy conditions at seeding time. They worry, perhaps more than most, over seeing the soil carried away by the wind, or by a muddy saline flood.

The increasing effort to avoid these kinds of tragedies can be seen everywhere; thousands of miles of contour banks, millions of trees being planted. Not so obvious is the use of stubble mulching and minimum tillage, together with controlled grazing and the establishment of salt tolerant plants in the saline valleys. Such efforts will do much to protect the soil but cannot be expected to overcome occasional flooding from torrential rain.

During the second week of June, massive falls of up to 200mm occurred over the north-eastern section of the Avon River basin, causing much local flooding which travelled down the East Mortlock to Northam and from the North-east Avon through the Yenyenning Lakes south-east of Beverley. Flow through the lakes and salt marsh beds of these usually inactive channels seldom occurs more than once in ten years; that from Lake Deborah near Southern Cross, perhaps once in 50 years. On virtually every occasion recorded since 1862, when such flows have happened, the western parts of the Avon basin have also experienced a flood season – but not this year.

In the years between floods, the eastern lakes and marshes act as vast evaporating pans, disposing of the local run-off and concentrating salt and other elements within them – nowadays including excess phosphates. Much of this is picked up during the next flood and discharged safely to the sea – provided strong flows are also occurring from high rainfall in the western part of the basin.

These phenomena were remarked upon by H.M. Lefroy in 1863, long before the development of agriculture and towns in the eastern wheatbelt. Before large scale agriculture, with its consequent clearing of forests, the western 400-800mm rainfall zone provided strong flows of fresh water each year, with plenty to remain over summer in the larger pools along the Avon Valley. This water was used for domestic purposes and for livestock, and only in the rare seasons when the eastern lakes overflowed, did salt render the water brackish.

Forest clearing in the western parts as well as in the eastern wheatbelt (very rapid since 1945) has changed the situation dramatically. Nowadays, the discharge from the west contains enormous volumes of salt and other pollutants that, in total over a ten-year period, are probably greater than those discharged from the 250-400mm rainfall zone to the east. However, it is usually diluted more by winter flood run-off.

Since 1945 these events have caused some changes to the wildlife of the river. A few species have disappeared, but others more tolerant to salt variation have taken their place. Some plants, salt-water snails and shrimps have come down the river from the marshes. Some small fish and a tiny shellfish have come upriver against the tide to colonise the Avon Valley pools. New species of birds have flown in as others

TROUBLED WATERS OF THE AVON

continued

disappeared – indicating that microscopic plants and animals are striving for a new balance. It is fortunate that there are many adaptive species already present about this river basin – not always so in some rivers.

It is not so much the salt (up to a limit not yet reached) that is the great menace to the ecology of the river, but the growth of algae due to excess nutrients, particularly phosphates, that have made the river unusable for people in summer and sometimes lethal to small creatures – due to de-oxygenation of the water.

What is so unusual about the strong flow through the Avon Valley this winter, is an isolated flood that has come from the eastern lakes, while low surface run-off has been occurring in the western areas. The volume of this western flow is still large but consists mainly of ground seepage water, higher in salinity and phosphates than usual.

During July, river water passing through Northam and Toodyay, had salt readings as high as 785 ml/litre (550 grains/gal.), nearly double that was ever recorded at a time of strong winter flow. The large masses of foam present in the lower Avon, looking in many places like suds from a kitchen sink, indicate that pollution initiated by phosphates is very evident this year.

An enormously complex task is being undertaken by CALM and the Department of Agriculture with the Riverways [Waterways] Commission, to develop measures for rehabilitation of the river. There are also large numbers of people who, at their own expense, are collecting data of scientific worth and also undertaking active preservation measures. The unusual circumstances of winter 1989, and their consequences, will be monitored closely.

Few who know the Avon could remain unaffected should the river become a mere sewer, hidden from view by a thin line of trees and with no life in its waters. An ever increasing number of people strive to prevent this happening. The river will be what we make it.

*J.R. Masters
Toodyay Naturalists' Club
Toodyay Herald September 1989 page 15.*

Reprinted with kind permission of the Masters' Family.



Left: Jim Masters OAM on the bank of the Avon River. Jim was the author of a myriad of papers on the Avon River and its management.

Jim's '*Principles of River Management*' is a prime example of the quality of work that Jim produced over the years.

Jim was a foundation member of the TFOR

Photo: Bernard Kelly

TOODYAY'S 175th ANNIVERSARY

During 2011, Toodyay celebrated 175 years of settlement.

Funding from the Shire of Toodyay was provided to community groups throughout the Shire to undertake various events and projects. The TFOR were fortunate to receive \$1,268.76 for two projects - a replacement sign for Duidgee Park, and new signs at Lloyd Reserve and at Millards Pool (Extracts area); and for a new theme sign for our environment tent at the Toodyay Agricultural Show (see Page 5). The TFOR wishes to acknowledge this grant, and thank the Shire most sincerely. A copy of the new sign for Duidgee Park forms the backdrop to our Environment Matters display at the Toodyay Agricultural Show (see Page 4).

FIRE HAZARD REDUCTION IN THE RIVER VALLEY OF TOODYAY

by Wayne Clarke

As a fire fighting agency FESA considers the reduction of the extremely high fuel load by 'hazard reduction' burning of unallocated crown land (UCL) in the river valley behind the town of Toodyay a vital protection for business, surrounding infrastructure and private residences. To perform this hazard reduction activity, a five-year 'hazard control burn' plan is in place for all UCL in the townsite with input from FESA, Shire of Toodyay, Volunteer Fire Brigades, Department of Water and the Toodyay Friends of the River.

Before a 'hazard reduction burn' within the boundaries of a townsite can take place there is a certain criteria that must be followed. Initially, an announcement is made in the local paper by FESA of the proposed burn to alert people, of that particular area, that a 'hazard reduction burn' may take place at a future date before winter rains. The weather conditions must be precise with temperature, wind speed, soil moisture index and an adequate number of personnel and vehicles available at the time of the proposed burn. Unfortunately, often conditions seem suitable but can alter very quickly and the 'hazard reduction burn' could then be postponed until conditions are suitable and man power available.

On the day of the proposed burn, and following an assessment of the fuel load and metering of the soil moisture index of the area, endemic trees within the hazard zone are given protection by damping the area surrounding the base of the trunk to the width of the over storey. Temperature, wind strength and direction of the wind are checked to assess best conditions to carry out the burn.

FESA recently attended a significant 'hazard reduction burn' because of the extremely high fuel load behind our town. It was feared that if a fire got into the river valley it would be very difficult to control. As the burn covered such a wide area it was not possible to notify all residents on the day of the burn due to the *very small window* of suitable conditions to proceed with it.

FESA's five year plan of 'hazard reduction' will proceed to the next step of prevention of regeneration of the weeds that have just been burnt. Unfortunately, the ash bed is a perfect medium for weed seeds to thrive so a spraying programme in the riverine area will follow.

For more details on this Programme contact Wayne Clarke or the Shire of Toodyay.

BOOK REVIEW

by Desraé Clarke

Managing Our Rivers by (the late) Dr Luke Pen. A guide to the nature and management of the streams of south-west Western Australia.

Luke's book is one of inspiration and a very 'personal' story of his love of our waterways. His knowledge is passed on in a way that is readily understood and, for the more difficult passages of hydrology, he has explanations that enable one to read over several times to suddenly grasp what originally appeared to be beyond understanding.

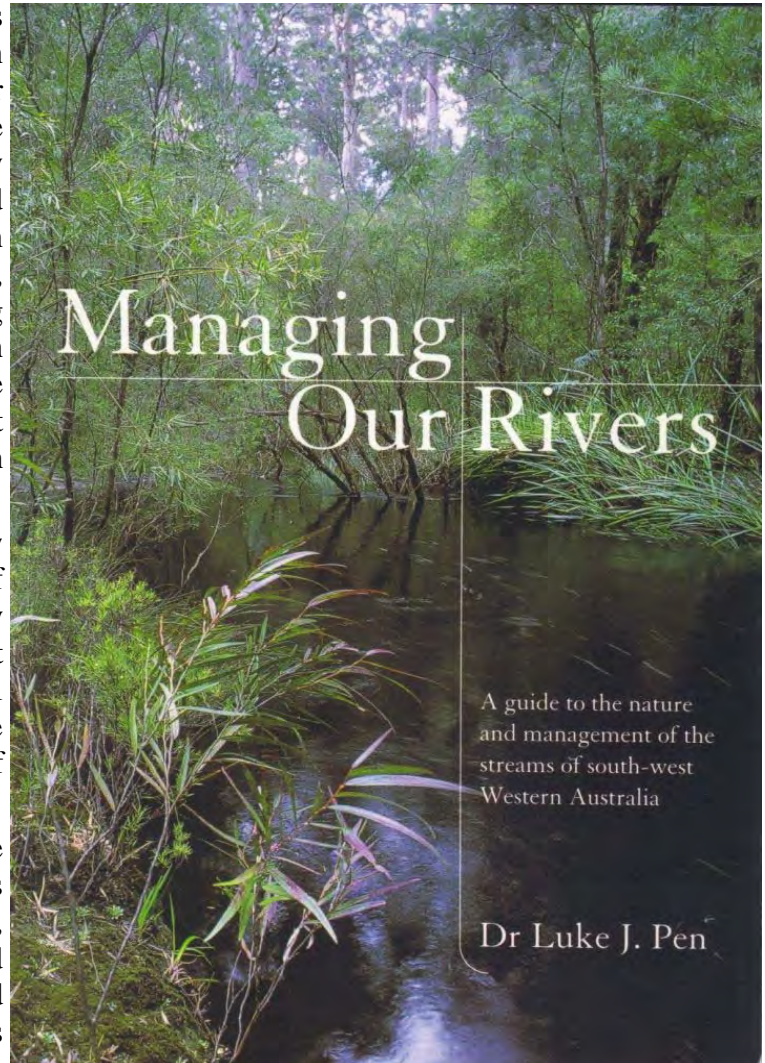
In Luke's foreword to his book it is worth listening to the child who was 'a boy in the 1960's, living in Queen's Park, a rather ordinary swampy suburb of Perth; there were open drains running along our streets. Every year my brothers and I and our friends, waited eagerly for winter, when the drains would run with water and come to life with tadpoles, gilgies and other creatures...A gilgie was a big catch and the best fun was building dams, which were breached with great ceremony just before our mums called us to dinner...Over time most of my friends' parents forbade them to play in drains, but my parents never did.'

Luke states he does not know 'how much the wet, wintry, drainy experience of my childhood influenced the course of my life...but when it came to choosing a course at University, I decided on Environmental Science...and for my honours year the suggestion of studying the fringing vegetation of the Swan and Canning Rivers struck a chord.'

With this very human content at the commencement of a book one already feels they know the author. In 1999 my Husband, Wayne, and I were fortunate enough to attend the State Land Conference in Esperance and Luke was one of the 'keynote speakers' – his presentation was a riot!

From the introduction to the south-west and its rivers, river animals (that include the macro invertebrates) to frogs, water birds, parasites, fish and the tiny animals of the plankton, human use, river degradation, river keeping to 'river keepers' and the final chapter of 'The Future,' the writings hold one's interest. Luke has included excellent maps and drawings plus many explanatory photographs throughout his book; sources of information conclude each section.

'Managing Our Rivers' is a book I would recommend to those interested in the environment; it is not heavy reading. It is educational, thought-provoking and written in a manner to learn and enjoy as Luke originally learned and enjoyed playing in the drains and catching tadpoles!



Newsletter of the
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*"Make Friends with
our Avon River"*



The objects of the *Toodyay Friends of the River* are to *work towards the conservation and rehabilitation of the Avon River and its environs. In the bigger picture of natural resource management, we are committed to implementing the Avon River Management Program and its associated River Recovery Plans for each of the four sections of river that pass through Toodyay.*

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