

### **CLIMATE CHANGE**

# Rod Camp Pr Eng from Cape Town writes:

I agree with WJR Alexander's dissertation, however I believe we must not lose sight of the possibility that the increase in gases such as carbon monoxide, carbon dioxide, nitrous oxides and particulate matter such as sulphur can have serious consequences on the health of living organisms and human life.

We must therefore continue to strive towards reducing these emissions and expedite the planting of more trees, such as pines, which are efficient carbon recyclers.

### Pr Heather Mackay from Pretoria comments:

While I have the greatest respect for Prof Alexander's work during his long and distinguished career, some statements in this particular article regarding the impacts of global warming are questionable, since they are based on his averaging of hydrological parameters over the whole of South Africa, which is not really meaningful when considering potential regional impacts of global warming. I am also concerned about his sweeping statement that the effects of global warming will be "beneficial to the natural environment". Prof Alexander's view that increased surface water flows will be beneficial to the natural environment is simplistic and trivializes this important issue, since there is plenty of good scientific evidence that increased flows, whether average or peak flows, can have significant negative impacts on aquatic ecosystems, just as reduced surface flows do.

I think it would be irresponsible not to publish a counter-view to Prof Alex-

ander's article in order to provide some balance.

## WATER PURIFYING DEVICES

# r HP Beyers, a retired analytical chemist from Kokanje, writes:

Water quality for potable and domestic purposes no doubt has become a crucially important issue in South Africa. However, these days, exaggerated and doubtful claims about the cure of all ills (including cancer, asthma, arthritis, etc) through the use of "pure" water are made in advertisements in the press, and a stream of opportunistic salesmen and merchants are exploiting the gullibility and ignorance of the public by foisting a variety of water filters and purifying devices on them. Very often these ill-informed salesmen are just out to make a fast buck. They are seldom adequately technically equipped to advise potential buyers about the merits and disadvantages of a particular water purifying device. They confront the ignorant with incomprehensible "technicalities" such as reverse osmosis, acetate membranes and what have you, producing highly purified potable water. Cursory reference is also made to activated carbon filters and ceramic, nylon and UV principles. I doubt if reference is ever made to the South African Bureau of Standards' revised standard for drinking water. There should of course be certain advantages to connect a water filter to your kitchen faucet. But it does not begin and end there. An intimate knowledge of the feed water quality (analysis to SABS standard) and compliance with the regulations of the departments of Health and Water Affairs is vital in evaluating a system and its performance, including the reduction and elimination of micro-organisms.

Few users of these filters, for instance, realise that if the chlorine, which is added during the water purification process, is removed, the end-product is "unprotected". The common complaint is usually the smell and taste of chlorine.

I would like to know if any research has been done to investigate the performance of these domestic water purifying devices, and whether there is any literature available on their effectiveness or guidelines for purchasing such a filter.

(The WRC has not officially tested any of these devices. Maybe our readers could assist or share their experiences with domestic water filters with us – Ed.)

### **CAREERS IN WATER**

# r Bruce Ramushu from Masemola writes:

I am a 24 year old man, currently working at a pressure castings company, but with my mind and heart in the water sector.

In May 2003 I obtained my N3 certificate at the then Northern Province Community College. Due to lack of finance I was unable to further my studies and was forced to look for a job. I tried the Department of Water Affairs for training, hoping to gain experience, but in vain.

I want to do a diploma in water care which many South African technikons offer on a fulltime basis, but which I unfortunately cannot afford, because I cannot leave my job for the classroom.

I wonder if there is any way in which you could help me reach my goals? In future, I would like to see my picture in the *Water Wheel*, sharing my knowledge about eutrophication, stabilisation, desludging, sewage water treatment, etc. with other readers.

## PH.D. AWARDED IN GROUNDWATER

Resource Management at the Water Research Commission, was awarded a Ph.D. degree on 16 March 2004 by the University of the Western Cape for his thesis "A decision-making framework for groundwater management in arid zones (with a case study in Nama-qualand)". Pictured after the ceremony are from left: Dr Shafick Adams (who received a Ph.D. for his studies into recharge processes in basement aquifers), Prof Yonxin Xu from the University, who acted as supervisor, and Dr Pietersen.



### WATER RESOURCES AS ECOSYSTEMS

Scientists, Government and Society at the Crossroads

South African Society of Aquatic Scientists Conference 2004
In association with the Department of Water Affairs and Forestry, and the Water Research Commission
Monday 5 July – Thursday 8 July 2004
Eskom Convention Centre, Midrand, Gauteng

Aquatic scientists in South Africa have always had a close relationship with sectors of government and parastatals responsible for the management of water resources and protection of aquatic ecosystems. Together scientists, policy makers and managers have, over the last three decades, brought South Africa to the forefront of thinking and technology for the integrated management of aquatic resources.

Over the last decade aquatic scientists in South Africa helped to stimulate the development of ground-breaking policy that recognises the ecosystem as the resource, and that sets out an approach which supports management of water resources as ecosystems. Innovative technology for integrating and operationalising the dual management imperatives of resource protection and resource utilisation was developed in parallel with this policy. Throughout, there has been a constructive engagement between sectors, particularly between scientists and government, that is unrivalled in the world, even if the road has been rocky at times. The policy, its supporting legislative framework and tools for its implementation, have the world on the edge of its seat in anticipation.

Our new legislation mandates a major redistribution of costs and benefits of using aquatic ecosystem resources. Achieving this in the letter, and spirit, of the Act and our Constitution, presents unprecedented challenges to scientists, government and society. They jointly hold the keys to successful implementation of an ecosystems approach to

water resources management.

The conference aims to capitalise on our legacy of constructive engagement to find an exciting way forward, in a partnership between scientists, government and society.

### THE PROGRAMME

The programme is designed to ensure participation by all SASAqS members, aquatic science students and a broad range of other professionals who can become partners in this challenge. We encourage all participants to engage the conference and session themes in their papers or posters, but as always, there will be room for specialised research presentations. If you have any queries you are welcome to contact the organisers of the various main sessions.

### **INFORMATION**

#### **Conference Office & General Enquiries**

Lesley Stephenson, Conference Coordinator Division for Continuing Professional Development, University of the Witwatersrand, PO Box 327, Wits 2050, Gauteng, South Africa

Tel: +27 11 717-7031 Fax: +27 11 339-7835 Cell: 083 679 0697

E-mail: stephensonl@ebe.wits.ac.za